

***It's All in
How You Ask
The Nuances of
Survey Question
Design***

**Kim Firth Leonard
Sheila B Robinson**

**Evaluation 2014
Denver, CO**



Sheila B Robinson

6 addresses in
Rochester

4 evaluation-
related jobs

2 cats

Countless
surveys

**Grant Coordinator /
Program Evaluator**
Greece Central School
District

Adjunct Professor
University of Rochester



Kim Firth Leonard

6 addresses in
Portland

5 ongoing
evaluation projects

2 beagles

Countless
surveys

**Senior
Evaluation
Officer**
The Oregon
Community
Foundation



“

*If you do not ask the
right questions, you
do not get the right
answers.*

– Edward Hodnett, 20th
century poet and writer

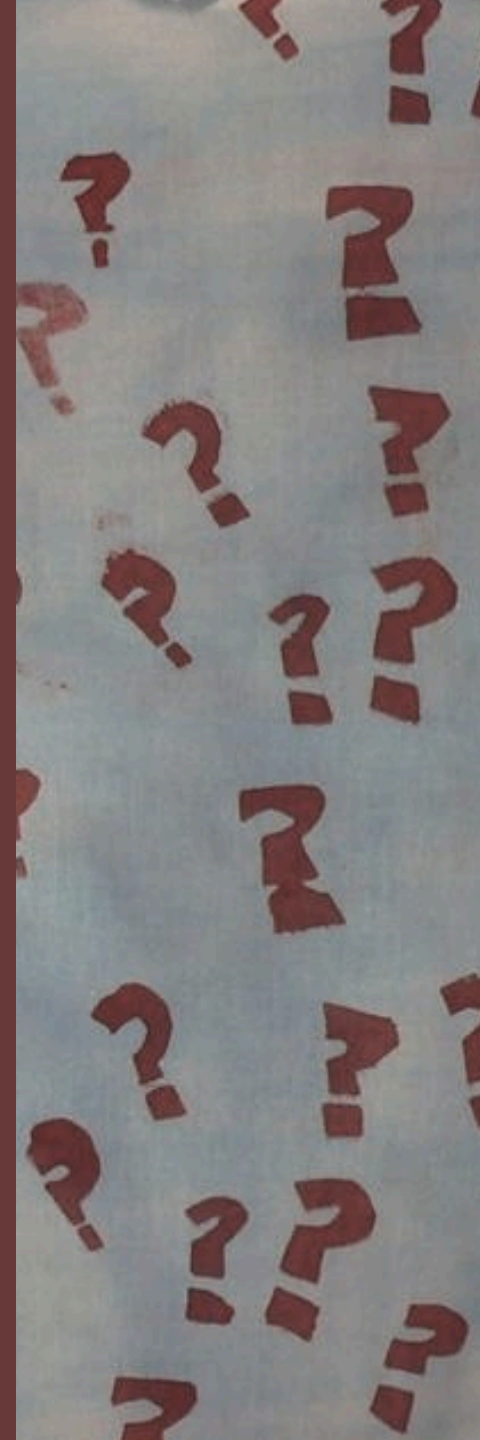


WHY?

Mutual frustration

Desire to improve

Co-creation

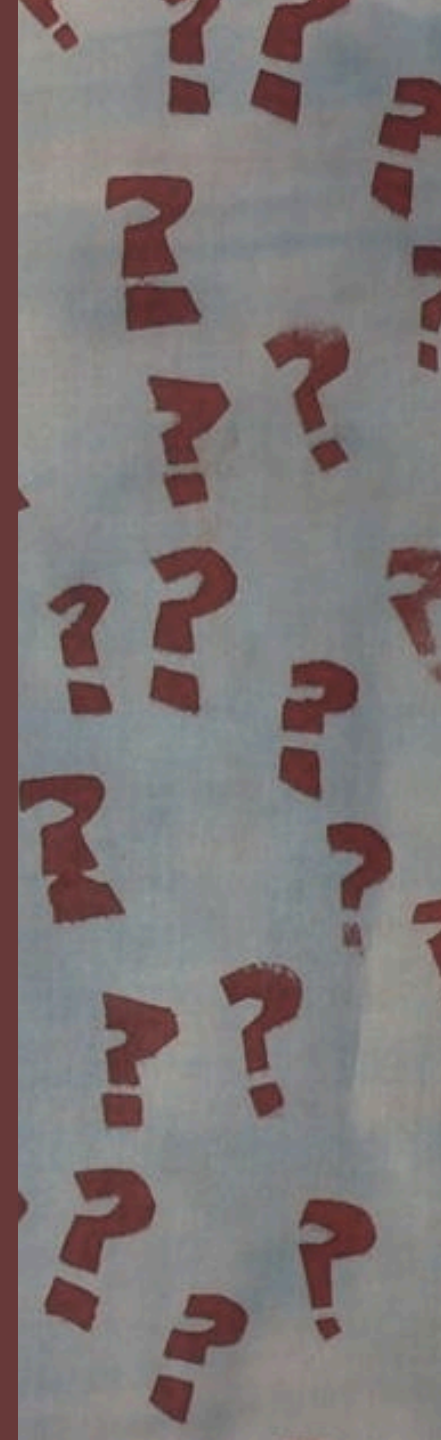


WHAT?

Explore

Increase confidence

Develop new resource

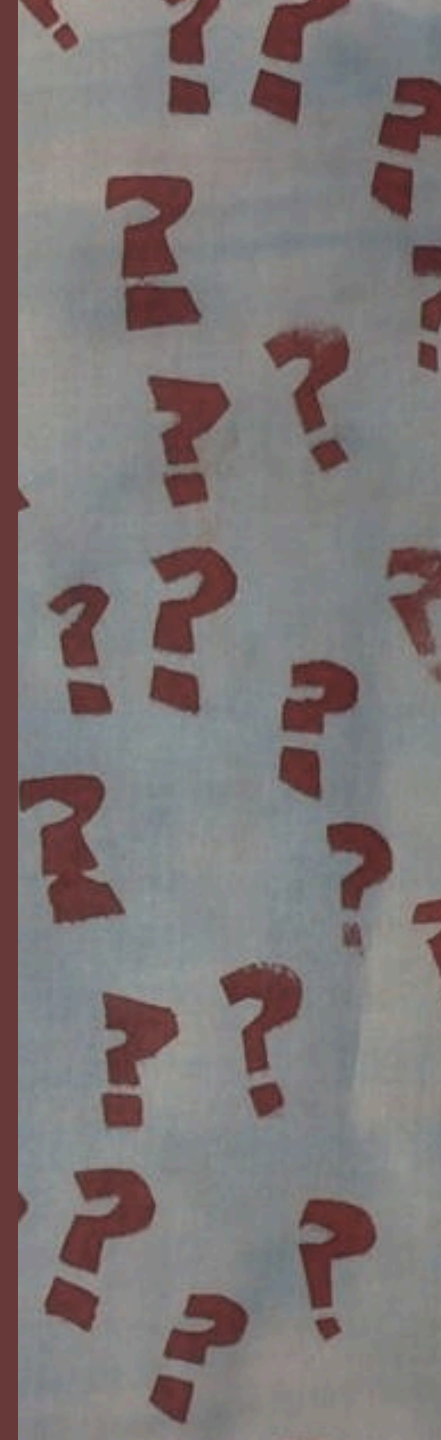


NOT...

Evaluation questions

All the answers

**Details of validity/ reliability
testing, or analysis of
responses**





HOW?

Share what we've learned

Engage in design challenges

Discuss key challenges & tips

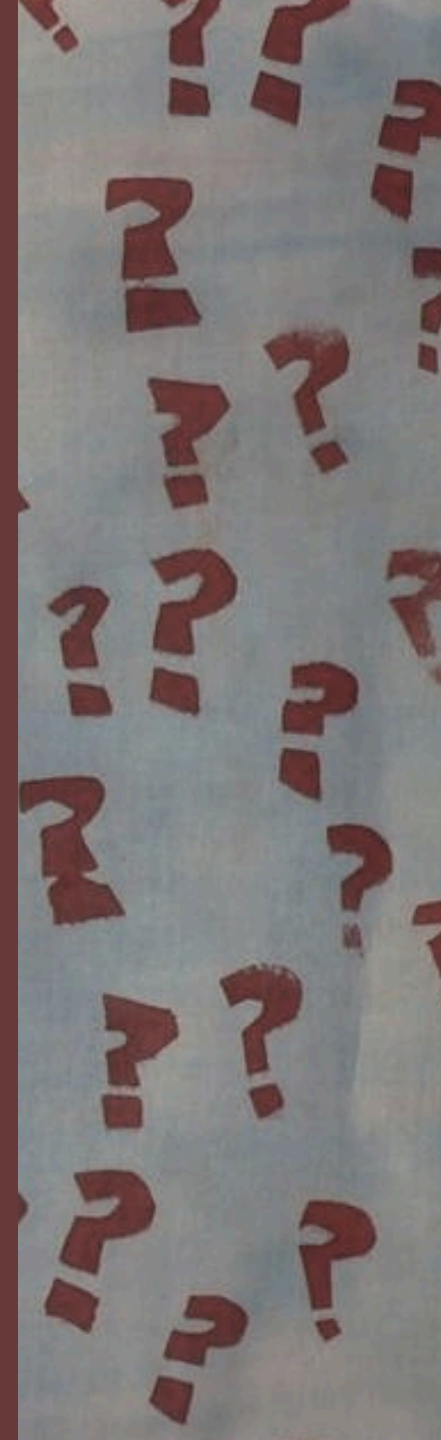
The importance of survey question design



The Quiz

Reflections?

Why this is so painful.



A Tale Of Two Polls



PDK/Gallup



Education Next

PDK/Gallup

Do you favor or oppose having the teachers in your community use the Common Core State Standards to guide what they teach?

PDK/Gallup

60% of respondents said
they oppose

Education Next

As you may know, in the last few years states have been deciding whether or not to use the Common Core, which are standards for reading and math that are the same across the states. In the states that have these standards, they will be used to hold public schools accountable for their performance. Do you support or oppose the use of the Common Core standards in your state?

Education Next

*As you may know, in the last few years states have been deciding whether or not to use the Common Core, which are standards for reading and math that are the same across the states. **In the states that have these standards, they will be used to hold public schools accountable for their performance.** Do you support or oppose the use of the Common Core standards in your state?*

Education Next

47% of respondents said
they oppose

Education Next



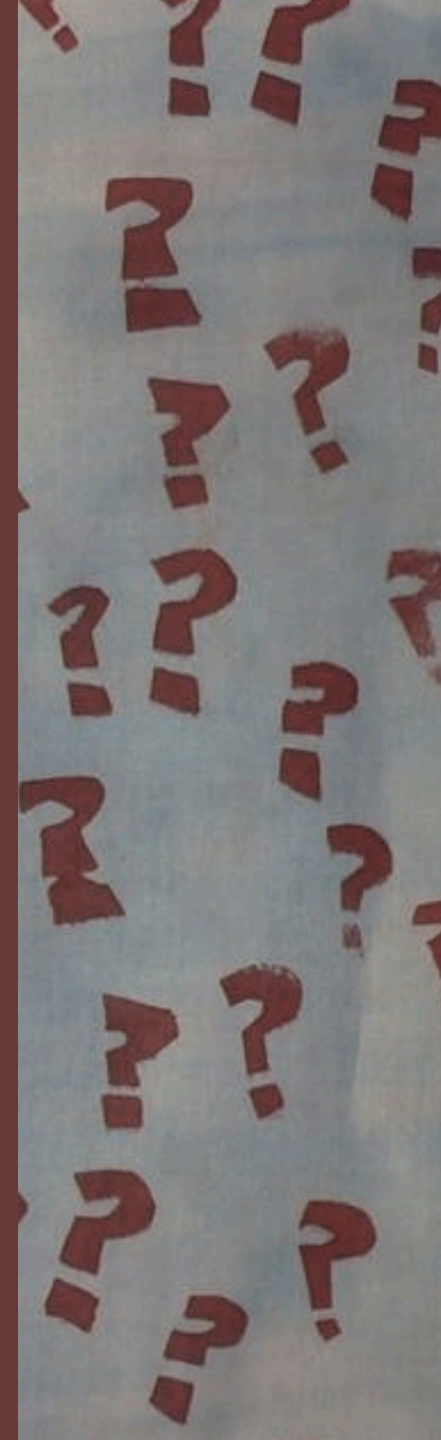
Common Core = 15 points

“

The first thing you learn is that there is no right way to ask a question.

- Paul Peterson, editor-in-chief, Education Next

More examples!



The questions in this survey will refer to the provider named in Question 1 as “this provider.” Please think of that person as you answer the survey. Is this the provider you usually see if you need a check-up, want advice about a health problem, or get sick or hurt?

☐ Yes

☒ No

How long have you been going to this provider?

☐ Less than 6 months

☐ At least 6 months but less than 1 year

☐ At least 1 year but less than 3 years

☐ At least 3 years but less than 5 years

☐ 5 years or more

**But I haven't *been*
going to this provider!**



On a scale of 1 to 10, please rate how well BestBuy.com performed in regard to the following.

Please select one response for each.

Huh?

	Poor 1	2	3	4	5	6	7	8	9	Excellent 10	Don't Know
The specific product you were looking for was available for purchase on BestBuy.com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The number of customer reviews and ratings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The product prices on BestBuy.com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to compare different products on BestBuy.com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The variety of products offered on BestBuy.com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Poor 1	2	3	4	5	6	7	8	9	Excellent 10	Don't Know
The ability to locate the products on BestBuy.com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The visual appeal of BestBuy.com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ease to get where you want on BestBuy.com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How well the product images show the product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BACK

NEXT

MOVING THROUGH YOUR VISIT

Very Poor
1

Poor
2

Fair
3

Good
4

Very Good
5

Degree to which you were informed about any delays

☐☐☐☐☐

Wait time at clinic (from arriving to leaving)

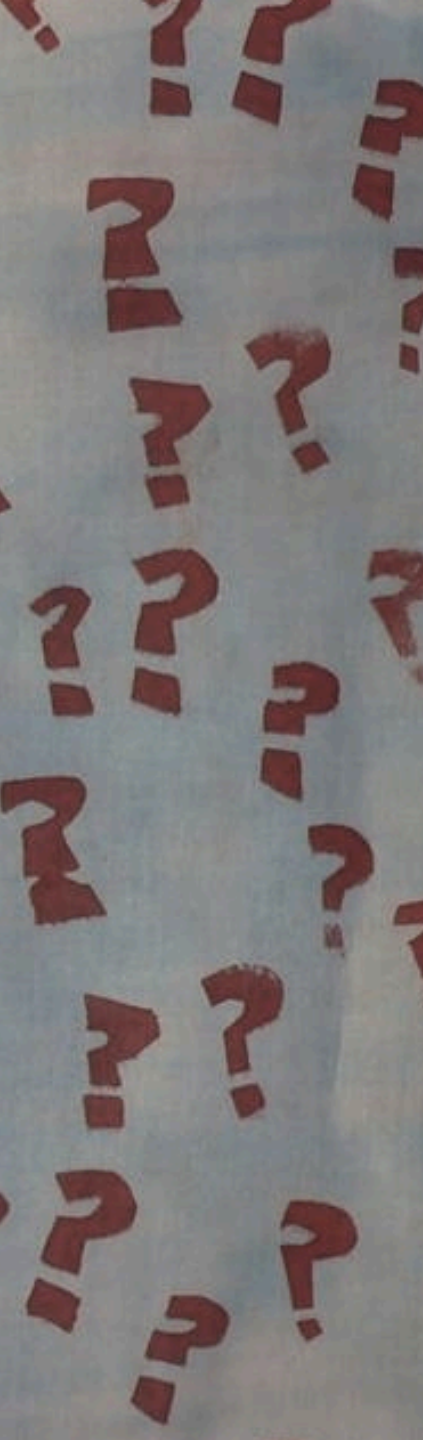
☐☐☐☐☐

Speed of the registration process

☐☐☐☐☐

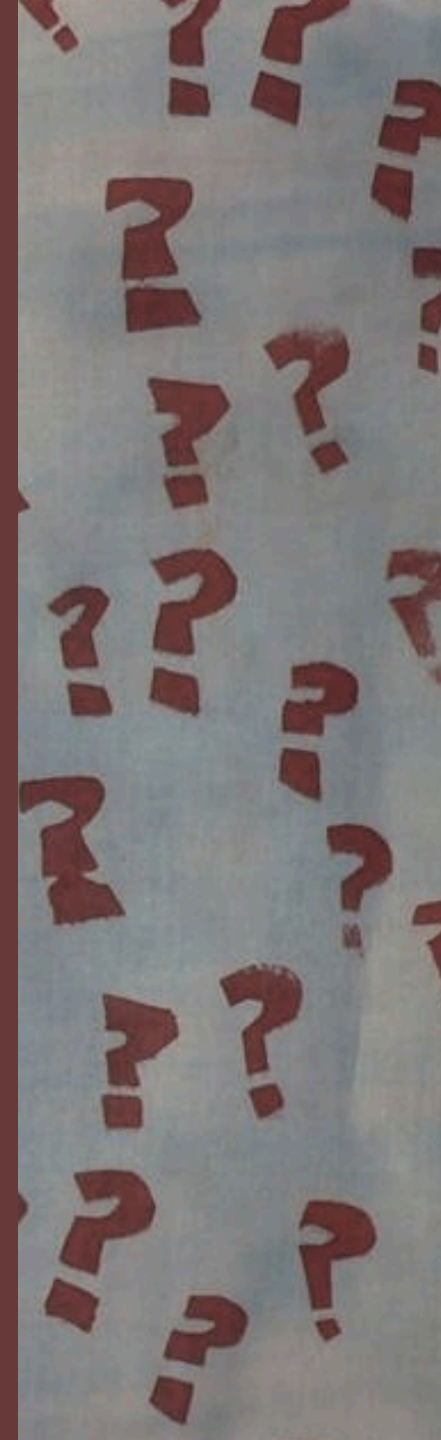
Comments (describe good or bad experience):

Huh?



How evaluators ask a question can dramatically influence the answers they receive.

Minor changes in question wording, format, or order can profoundly affect results.





Who Are
You?

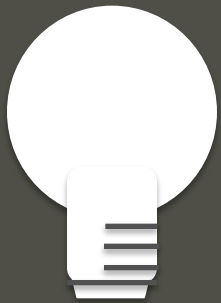
In posing a behavioral question, researchers implicitly hope that participants will...

1. Understand the question
2. Identify the behavior of interest
3. Retrieve relevant instances of the behavior from memory
4. Correctly identify the relevant reference period
5. Search this reference period to retrieve all relevant instances of the behavior
6. Correctly date the recalled instances of the behavior to arrive at a frequency report
7. Correctly add up all the instances to determine whether they fall within the reference period
8. Map this frequency onto the response alternatives
9. Candidly provide the result of their recall effort to the researcher

Respondents' Tasks in Responding to a Question

1

**Understanding
the question**



2

**Recalling
relevant
behavior**



3

**Inference &
estimation**

*23+16
=40ish*

4

**Mapping the
answer onto
the response
format**

C → A
B
C
D

5

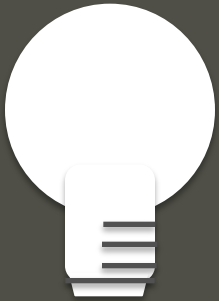
**"editing" the
answers for
reasons of
social
desirability**



Respondents' Tasks in Responding to a Question

1

**Understanding
the question**



Pragmatic inferences

Open vs. closed question formats

Frequency scales

Reference periods

Question context

Researcher's affiliation

Respondents' Tasks in Responding to a Question

2

Recalling
relevant
behavior



**Autobiographical memory
Facilitating recall**

Reference periods

Time & motivation

Decomposition strategies:

Recall cues

Estimation strategies

Temporal direction of search

Dating recalled instances

Respondents' Tasks in Responding to a Question

Inferences Based
on Partial Recall

Inferences Based
on Subjective
Theories

Inferences Based
on the Research
Instrument

3

Inference &
estimation

***23+16
=40ish***

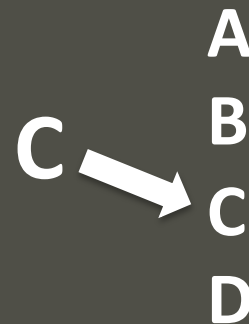
Respondents' Tasks in Responding to a Question

Rating scales

Response order effect

4

Mapping the
answer onto
the response
format



Respondents' Tasks in Responding to a Question

Social Desirability and Self-Presentation

5

"editing" the answers for reasons of social desirability



Goal:

**Write questions your
respondents will easily
understand without having to
reread them.**

General guidelines



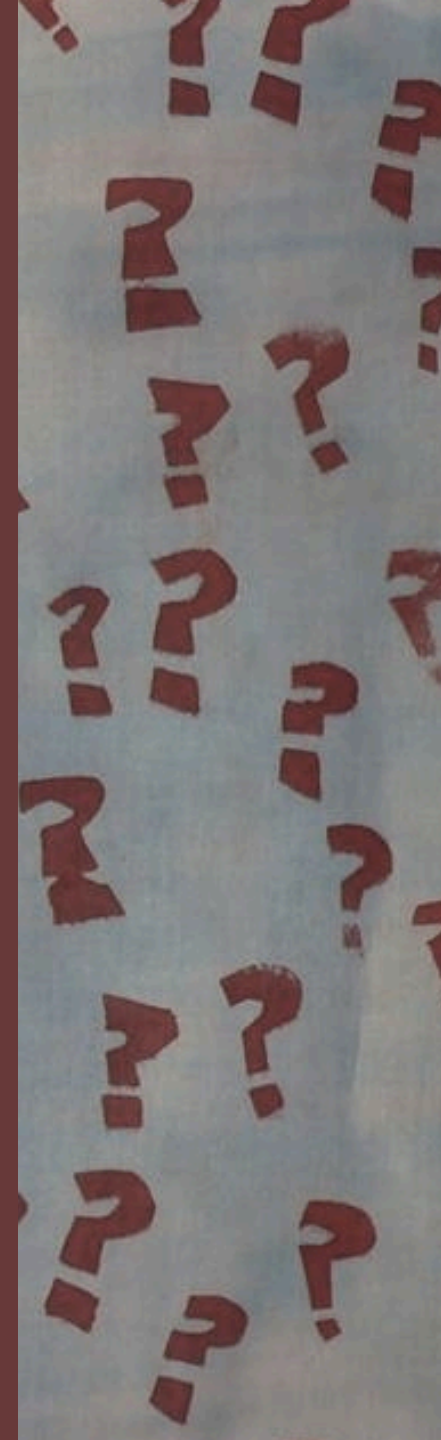
Fowler's Characteristics

- 1. Questions are consistently understandable**
- 2. Both questions AND answer options are consistently communicated**
- 3. Respondents are able and willing to answer said questions**

Dillman (et al) guidelines

1. Make sure the question applies to the respondent
2. Make sure the question is technically accurate
3. Ask one question at a time
4. Use simple and familiar words
5. Use as few words as possible to post the question
6. Use complete sentences with simple sentence structures
7. Make sure "yes" means yes, and "no" means no
8. Be sure the question specifies the response task

**Consider question
purpose**



1. How would you rate your experience with our services today?

Excellent Good Fair Poor

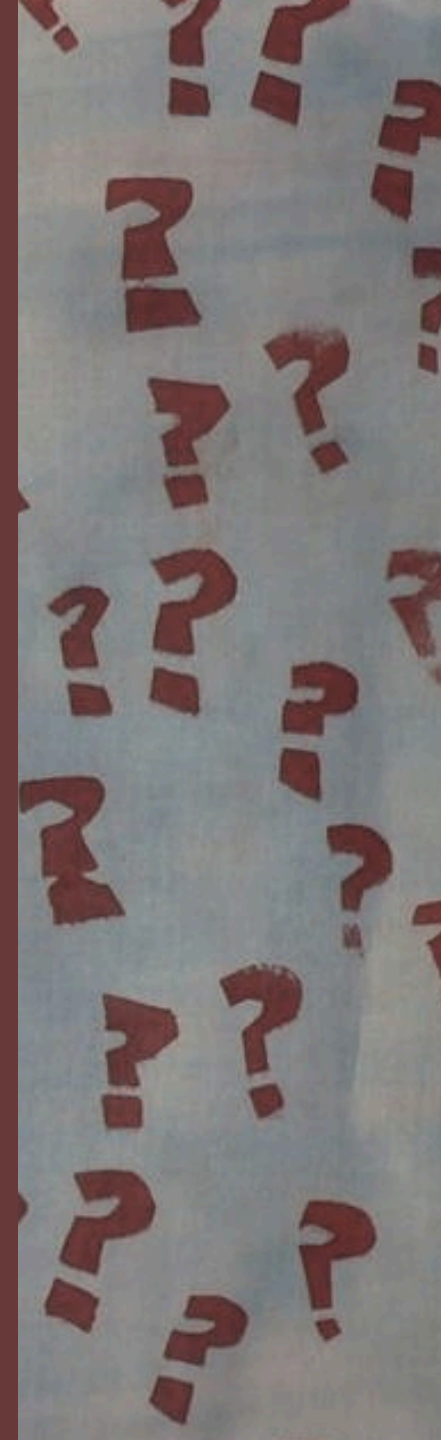
2. How would you rate the quality of the services you received today?

Excellent Good Fair Poor

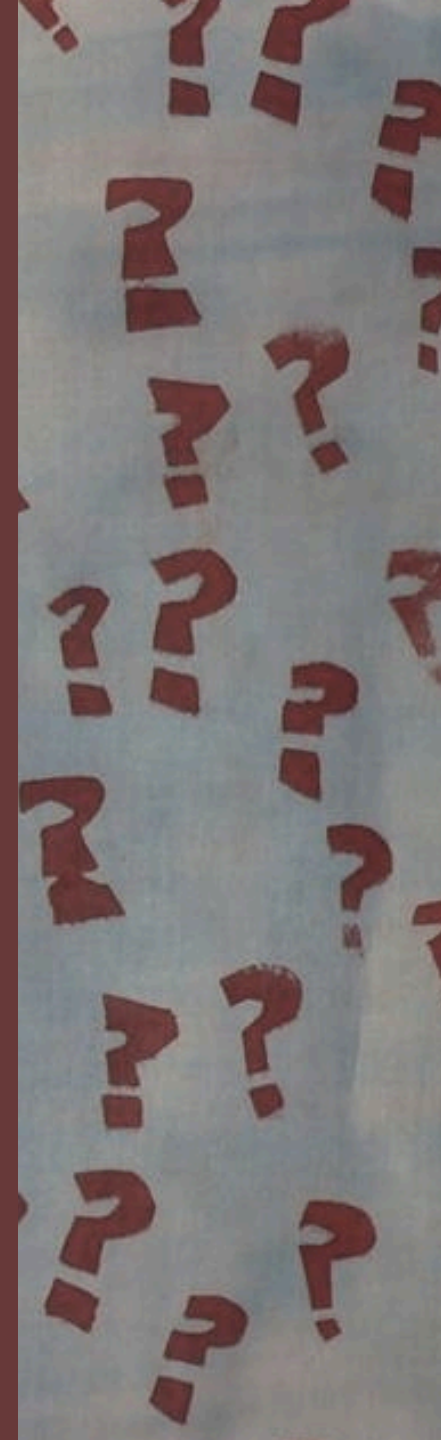
3. How would you rate the amount of time you waited for service today?

Excellent Good Fair Poor

**Question purpose:
Determine if a
family is financially
secure**

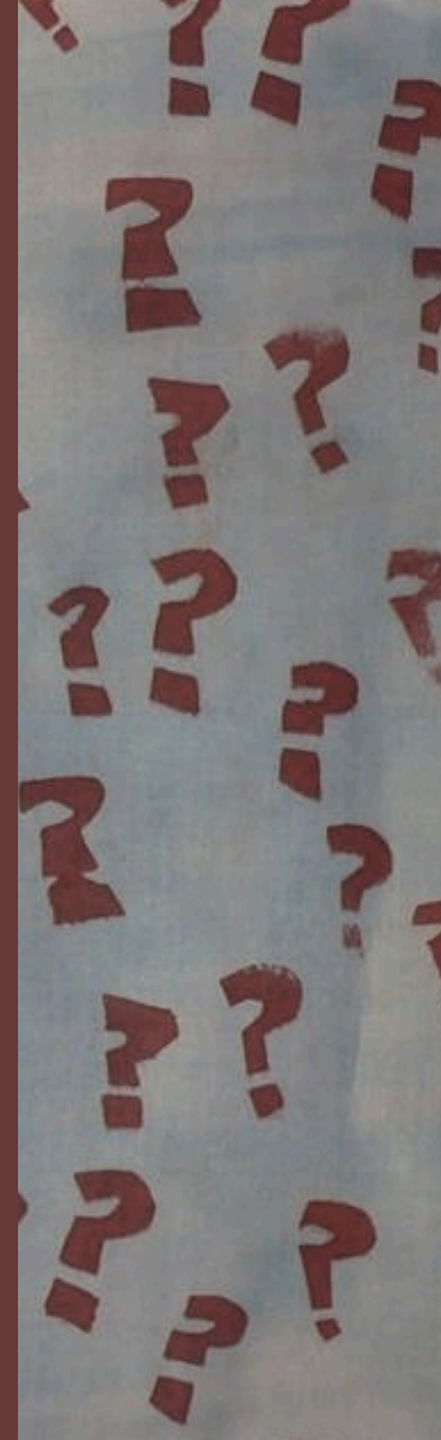


**How well are you
doing financially?**



How well are you doing financially?

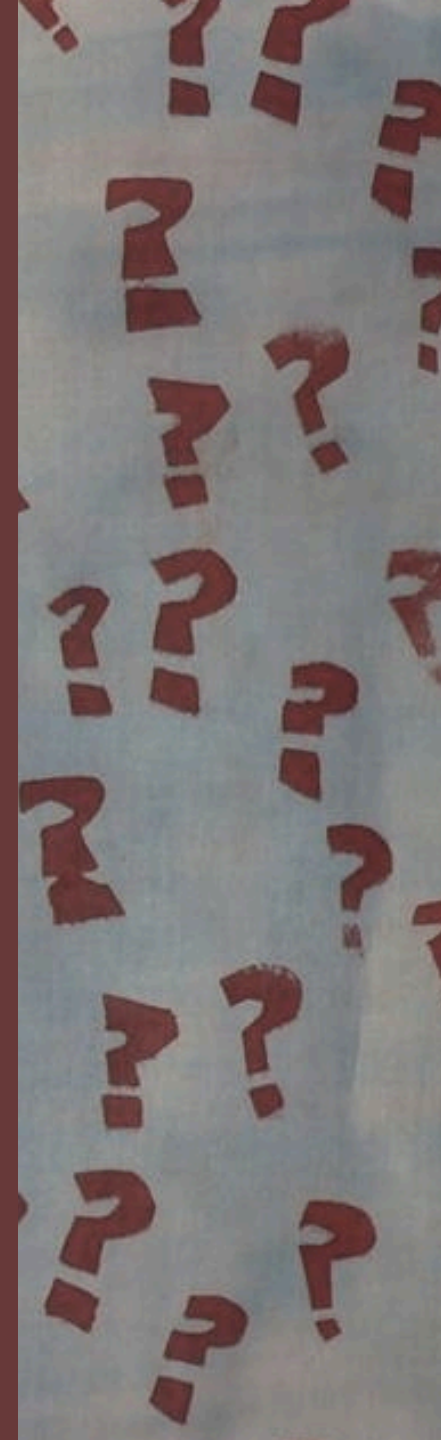
- A. Very well
- B. Pretty well
- C. Just OK
- D. Not too well



Are you employed?

A. Yes

B. No



**How often are you able
to cover your daily
living expenses?**

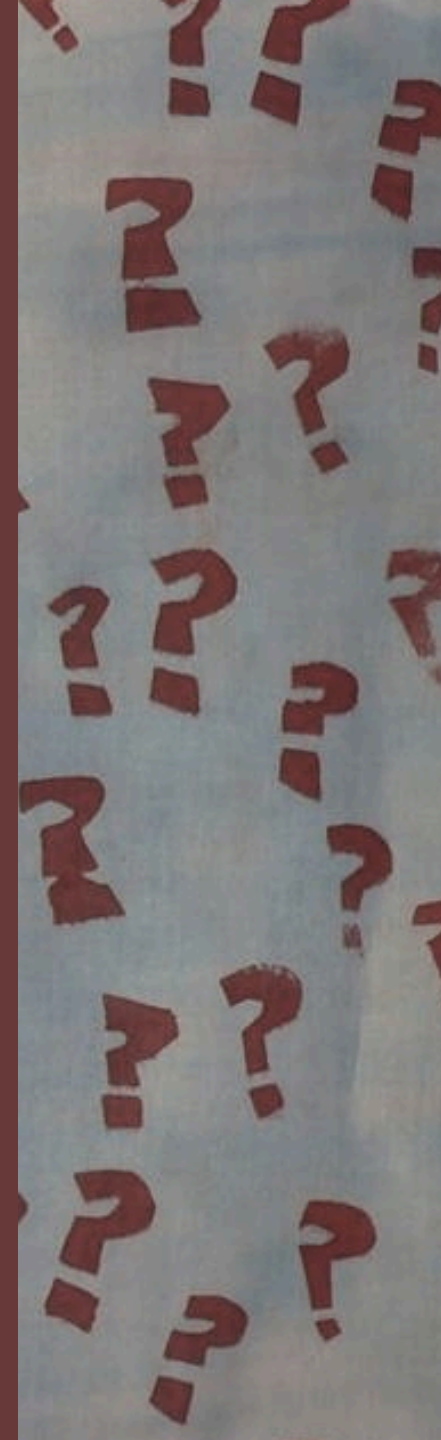
A.Always

B.Most of the time

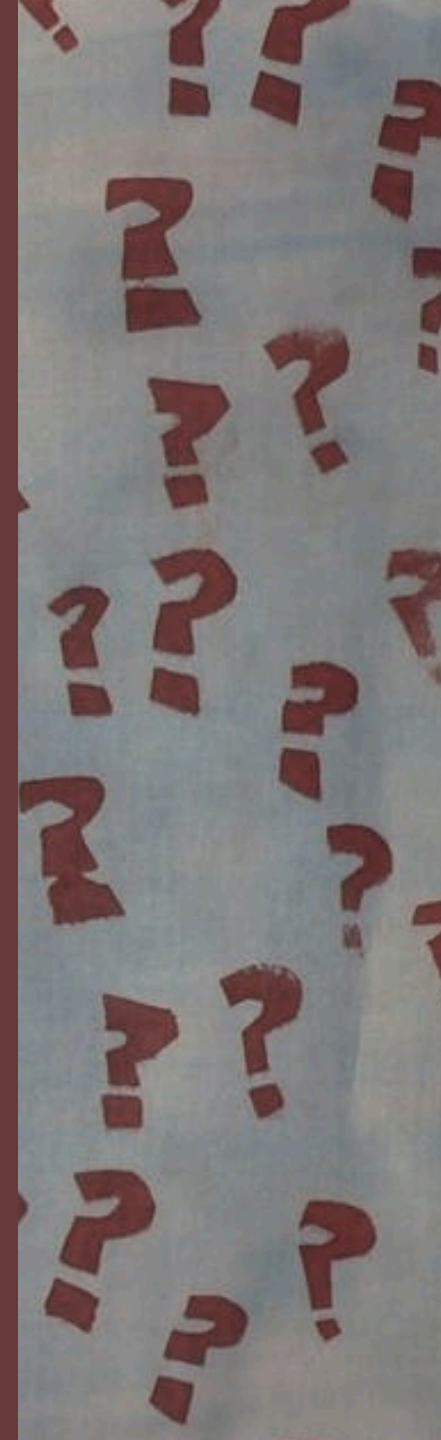
C.Sometimes

D.Not very often

E.Never



The extreme importance of context



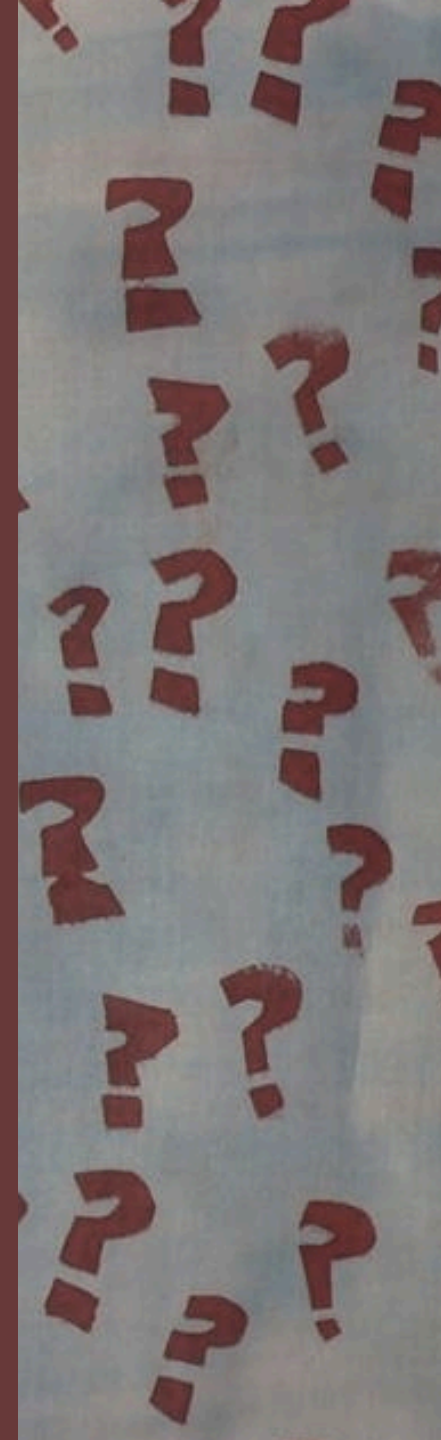


Consulting

The diagram consists of two blue arrows with white outlines. The left arrow points left and contains the word 'Consulting'. The right arrow points right and contains the word 'Piloting'. The two arrows are connected at their inner ends by a curved, overlapping shape that suggests a continuous loop or cycle.

Piloting

**Other guidelines or
advice?**



One next step – a checklist

Data Visualization Checklist

by Stephanie Evergreen & Ann K. Emery
May 2014

This checklist is meant to be used as a guide for the development of high impact data visualizations. Rate each aspect of the data visualization by circling the most appropriate number, where 2 points means the guideline was fully met, 1 means it was partially met, and 0 means it was not met at all. n/a should not be used frequently, but reserved for when the guideline truly does not apply. For example, a pie chart has no axes lines or tick marks to rate. Refer to the Data Visualization Anatomy Chart on the last page for guidance on vocabulary.

Guideline

Rating

Text

Graphs don't contain much text, so existing text must encapsulate your message and pack a punch.

6-12 word descriptive title is left-justified in upper left corner

Short titles enable readers to comprehend takeaway messages even while quickly skimming the graph. Rather than a generic phrase, use a descriptive sentence that encapsulates the graph's finding or "so what?" Western cultures start reading in the upper left, so locate the title there.

2 1 0 n/a

Subtitle and/or annotations provide additional information

Subtitles and annotations (call-out text within the graph) can add explanatory and interpretive power to a graph. Use them to answer questions a viewer might have or to highlight one or two data points.

2 1 0 n/a

Text size is hierarchical and readable

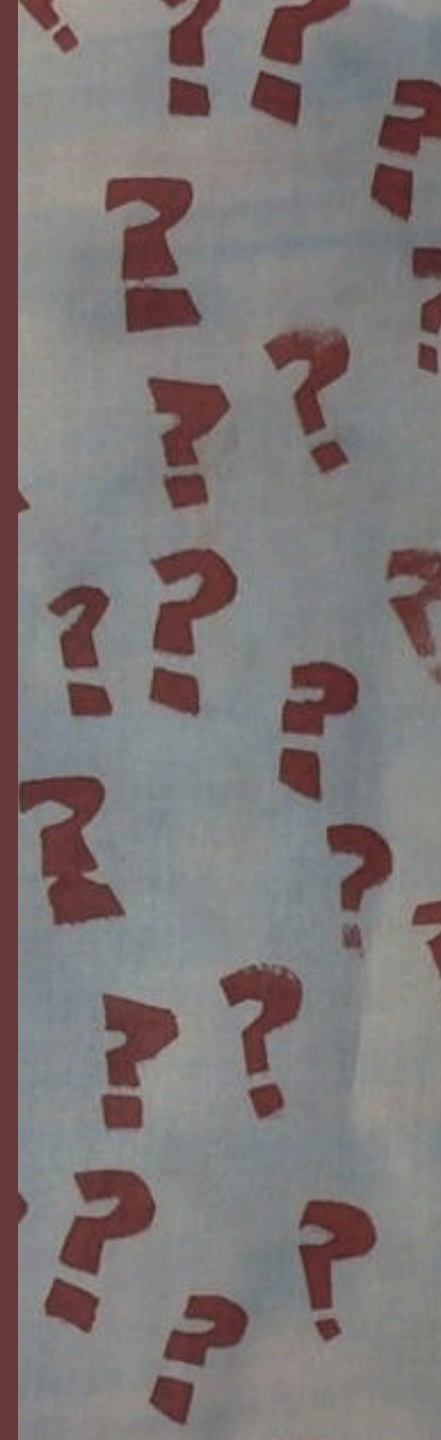
Titles are in a larger size than subtitles or annotations, which are larger than labels, which are larger than axis labels, which are larger than source information. The smallest text - axis labels - are at least 9 point font size on paper, at least 20 on screen.

2 1 0 n/a

Creative Question Design!



**How many words did
you write?**



Question vs Question

Group 1:

What did you learn?

Group 2:

Part I: How did you feel?
(Choose all that apply)

- Energized
- Renewed
- Bored
- Inspired
- Overwhelmed
- Angry
- Other

Part II: Please explain why you chose the word(s) you did:



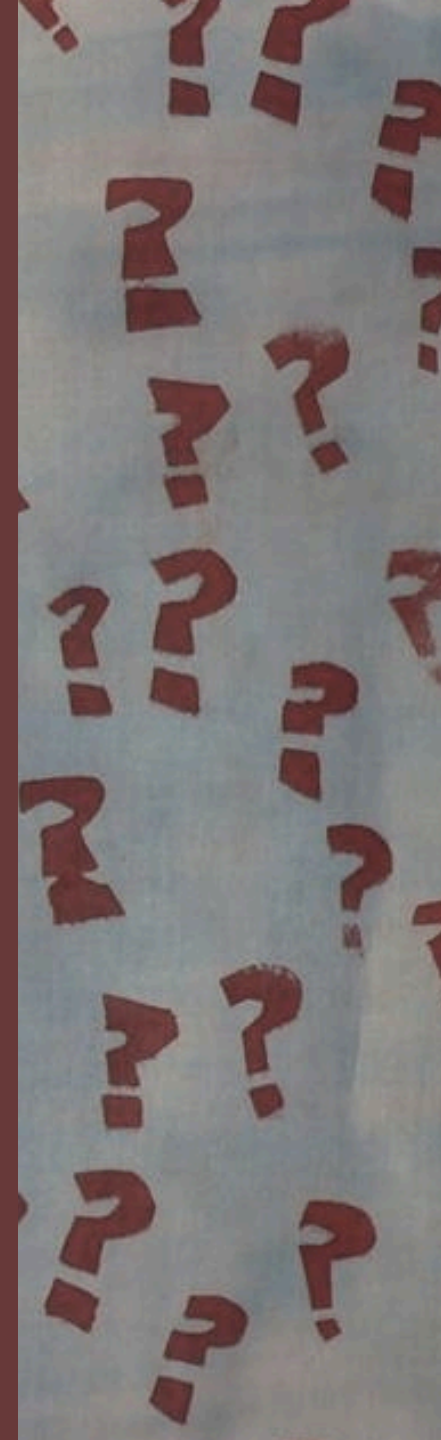
Draft a Question!

OPTIONS:

- 1. Provided scenario**
- 2. Fix bad survey quiz questions**
- 3. Or related to topic of your choice**

Scenario

- evaluation of a middle school youth development program
- survey teachers
- To learn about the students' academic challenges, and their familiarity with the program
- results will inform program improvement



Tensions



The Odds & Evens Debate



Are open-ended questions like women?

WOMEN, HUH?

**CAN'T LIVE WITH 'EM;
CAN'T SUCCESSFULLY
REFUTE THEIR HYPOTHESES.**

Other Tensions?





Balancing Tensions

Survey fatigue



One last caveat



- **Check out the resources we've shared**
- **Watch for more from us**
 - **Checklist!?**
- **Interested in further work on this?**
 - **Sheila:**
sheilabethrobinson@gmail.com
 - **Kim: kfirthleonard@gmail.com**
- **We'd like your feedback -- A survey for you!**

