

The background of the slide features a large, faint watermark of the Stanford University seal. The seal is circular and contains the text 'LELAND STANFORD JUNIOR' at the top and '1891' at the bottom. In the center of the seal is a figure of a Native American holding a bow and arrow, with a redwood tree to the left and a mountain range in the background.

Questionnaire Design: Theory and Best Practices

MAXIMIZING THE RELIABILITY AND VALIDITY OF
SURVEY DATA COLLECTION

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Stanford University Institute for Research in the Social Sciences

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Outline

STARTING AT THE END

Q & A

THE COGNITIVE RESPONSE PROCESS

SATISFICING

RESPONSE OPTIONS

QUESTION WORDING

QUESTION ORDER

IN THE PAST YEAR, HOW MANY ONLINE COURSES HAVE YOU PARTICIPATED IN?

Starting with the finished product

BEFORE STARTING SURVEY DESIGN:

- WHAT IS YOUR RESEARCH QUESTION?
 - What are the topics
- IS A SURVEY THE BEST METHOD TO COLLECT THE DATA THAT YOU NEED?
- WHAT VARIABLES ARE IN YOUR IDEAL DATASET?

Starting with the finished product

SURVEY DESIGN SHOULD BEGIN WITH A DATA ANALYSIS PLAN:

- AN ANALYSIS PLAN CAN PROVIDE STRUCTURE AND HELP TO AVOID MANY PROBLEMS
 - Every question must have a purpose – what do you want to learn from this item? How certain are you that it will be used in your analysis?
 - Every question should produce the best possible data for your purpose – “someone else in my field thought this was a good question 30 years ago” may or may not be a good enough rationale
 - Every question will one-day be a variable – make your future self happy by designing variables that behave nicely

Starting with the finished product

WHO WILL COMPLETE YOUR SURVEY:

- WHO IS YOUR TARGET POPULATION AND HOW WELL ARE THEY COVERED BY THE SURVEY SAMPLING FRAME?
 - Are there subgroups that you are particularly interested in measuring?
- UNDERSTANDING AND RESPECTING YOUR RESPONDENTS IS IMPORTANT
 - How motivated will they be? How educated? Etc
 - How can you get those people to give you the best data?

We all ask and answer questions every day, so this should be intuitive, right?

3-MINUTE ACTIVITY:

USING YOUR INTUITION, COME UP WITH THREE ORIGINAL (TO YOUR KNOWLEDGE) QUESTIONS THAT YOU COULD ASK SOMEONE TO DETERMINE WHETHER OR NOT THEY WILL VOTE IN THE UPCOMING 2014 MIDTERM ELECTIONS.

What is a question?

A REQUEST FOR SPECIFIC INFORMATION THAT WE AS RESEARCHERS EXPECT OUR RESPONDENTS TO BE ABLE TO PROVIDE?

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A REQUEST FOR SPECIFIC INFORMATION THAT WE AS RESEARCHERS EXPECT OUR RESPONDENTS TO BE ABLE TO PROVIDE?

WHY ASK THIS QUESTION?

WHAT EXACTLY ARE YOU TRYING TO MEASURE?

IS THIS THE BEST WAY TO MEASURE THAT CONSTRUCT?

HOW WILL YOU ANALYZE THE DATA?

What is a question?

A REQUEST FOR SPECIFIC INFORMATION THAT WE AS RESEARCHERS EXPECT OUR RESPONDENTS TO BE ABLE TO PROVIDE?

A REQUEST FOR WHATEVER PIECE OF INFORMATION OUR RESPONDENTS **THINK** WE WANT THEM TO PROVIDE?

What is a question?

A REQUEST FOR SPECIFIC INFORMATION THAT WE AS RESEARCHERS EXPECT OUR RESPONDENTS TO BE ABLE TO PROVIDE?

A REQUEST FOR SOME PIECE OF INFORMATION THAT OUR RESPONDENTS THINK WE WANT THEM TO PROVIDE?

WHAT ARE THE POSSIBLE INTERPRETATIONS OF THE QUESTION?

IS THERE A SOCIALLY DESIRABLE RESPONSE?

HOW DOES THE CONTEXT OF THE QUESTION INFLUENCE ITS MEANING?

What is a question?

A REQUEST FOR SPECIFIC INFORMATION THAT WE AS RESEARCHERS EXPECT OUR RESPONDENTS TO BE ABLE TO PROVIDE?

A REQUEST FOR SOME PIECE OF INFORMATION THAT OUR RESPONDENTS THINK WE WANT THEM TO PROVIDE?

WHICH PERSPECTIVE IS RIGHT?

What is a question?

MISINTERPRETING A QUESTION CAN LEAD TO RESPONDENTS ANSWERING A
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WOULD YOU KNOW IF THIS HAPPENED?

FOR ONE OF YOUR RESPONDENTS?

What is a question?

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DIFFERENT QUESTION THAN THE RESEARCHER INTENDED

WOULD YOU KNOW IF THIS HAPPENED?

FOR ONE OF YOUR RESPONDENTS?

FOR **ALL** OF YOUR RESPONDENTS?

2 Techniques to Avoid Most Questionnaire Problems:

1. USE BEST PRACTICES FROM THE EXTENSIVE SURVEY METHODOLOGY LITERATURE!
2. PRETEST YOUR SURVEY!

Pretesting questionnaires

IDENTIFY:

- Confusing items
- Respondent problems
- Your mistakes
- Potential biases
- Uninformative questions

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- Respondent problems
- Mistakes
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- Uninformative questions

COGNITIVE INTERVIEWING

- Understand how respondents process your questions
- Help check for 1:1 mapping of target construct onto measures

What does pretesting look like?

NOT MUCH LITERATURE BEYOND COGNITIVE INTERVIEWING, HOWEVER:

1. ANY PRETESTING IS BETTER THAN NONE
 - Friends, colleagues, people in this room, non-experts
 - A small sample of respondents

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2. AT VERY LEAST YOU'LL CATCH GLARING ERRORS

- Typos, broken skip logic, question/response option mismatch, etc

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2. AT VERY LEAST YOU'LL CATCH GLARING ERRORS
 - Typos, broken skip logic, question/response option mismatch, etc
3. BUT HOPEFULLY YOU'LL GET SOME QUALITATIVE FEEDBACK TOO
 - What was confusing?
 - What was difficult?
 - What was easy?

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2. AT VERY LEAST YOU'LL CATCH GLARING ERRORS
 - Typos, broken skip logic, question/response option mismatch, etc
3. BUT HOPEFULLY YOU'LL GET SOME QUALITATIVE FEEDBACK TOO
 - What was ~~confusing~~? ← None of this
 - What was difficult? ← Less of this
 - What was **easy**? ← More of this

Goals for evaluating questions

- REDUCE OPPORTUNITY FOR RESPONDENT ERROR
 - Questions should be clear and make it easy for our respondents to provide valid, accurate, and reliable answers.

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 - Use questions that can be asked and answered as quickly as possible

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 - Questions should be clear and make it easy for our respondents to provide valid, accurate, and reliable answers.
- MINIMIZE ADMINISTRATION DIFFICULTY
 - Use questions that can be asked and answered as quickly as possible
- ALL ELSE EQUAL, WE WOULD LIKE OUR RESPONDENTS TO ENJOY ANSWERING OUR QUESTIONS AND NOT FIND THEM FRUSTRATING

6-minute activity:

IN PAIRS, COMBINE YOUR QUESTIONNAIRES AND BRIEFLY PRETEST/REVISE.
(OVERLAPPING QUESTIONS MAY BE REPLACED)

“A RESEARCHER ALSO CAN FALSELY ECONOMIZE BY USING SCALES THAT ARE TOO BRIEF IN THE HOPE OF REDUCING THE BURDEN ON RESPONDENTS. CHOOSING A QUESTIONNAIRE THAT IS TOO BRIEF TO BE RELIABLE IS A BAD IDEA NO MATTER HOW MUCH RESPONDENTS APPRECIATE ITS BREVITY. . . RESPONDENTS’ COMPLETING “CONVENIENT” QUESTIONNAIRES THAT CANNOT YIELD MEANINGFUL INFORMATION IS A POORER USE OF THEIR TIME AND EFFORT THAN THEIR COMPLETING A SOMEWHAT LONGER VERSION THAT PRODUCES VALID DATA.

DEVELLIS (2003, P.12-13)

Reliability & Validity

RELIABILITY REFERS TO THE EXTENT TO WHICH OUR MEASUREMENT PROCESS PROVIDES CONSISTENT OR REPEATABLE RESULTS.

Reliability & Validity

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- Internal consistency (high inter-item correlation for measures of the same construct)
- Temporal stability (test-retest reliability)

Reliability & Validity

VALIDITY REFERS TO THE EXTENT TO WHICH OUR MEASUREMENT PROCESS IS MEASURING WHAT WE INTEND TO BE MEASURING.

Reliability & Validity

VALIDITY REFERS TO THE EXTENT TO WHICH OUR MEASUREMENT PROCESS IS MEASURING WHAT WE INTEND TO BE MEASURING.

- Content validity – how well does your sample of questions reflect the domain of possible questions?
- Criterion-related validity (aka “predictive” or “concurrent” validity) – what is the strength of the empirical relationship between question and criterion (“gold standard”)?
- Construct validity – how closely does the measure “behave” like it should based on established measures or the theory of the underlying construct
- ~~Face validity~~ – what does the question *look* like it’s measuring?

3 minute activity:

WRITE RESPONSE OPTIONS FOR EACH OF YOUR QUESTIONS.

What is an answer?

A RESPONSE TO A REQUEST FOR INFORMATION?

What is an answer?

A RESPONSE TO A REQUEST FOR INFORMATION?

OR

A RESPONSE TO A REQUEST FOR INFORMATION THAT IS INTERPRETED (OR MISINTERPRETED), CONSIDERED, EDITED, AND MAPPED ONTO A SET OF RESPONSE OPTIONS?

Cognitive steps in providing an answer

1) UNDERSTAND INTENT OF QUESTION.

- What is meant by the question as it may differ from the literal interpretation of the words

Cognitive steps in providing an answer

- 1) UNDERSTAND INTENT OF QUESTION.
- 2) SEARCH MEMORY FOR INFORMATION.
 - Identifying relevant information stored in memory

Cognitive steps in providing an answer

- 1) UNDERSTAND INTENT OF QUESTION.
- 2) SEARCH MEMORY FOR INFORMATION.
- 3) INTEGRATE INFORMATION INTO SUMMARY JUDGMENT.
 - Synthesizing information from memory and making determinations about knowledge or attitudes

Cognitive steps in providing an answer

- 1) UNDERSTAND INTENT OF QUESTION.
- 2) SEARCH MEMORY FOR INFORMATION.
- 3) INTEGRATE INFORMATION INTO SUMMARY JUDGMENT.
- 4) TRANSLATE JUDGMENT ONTO RESPONSE ALTERNATIVES.
 - Formatting the summarized information into an acceptable response based on the available question response options

Cognitive steps in providing an answer

- 1) UNDERSTAND INTENT OF QUESTION.
- 2) SEARCH MEMORY FOR INFORMATION.
- 3) INTEGRATE INFORMATION INTO SUMMARY JUDGMENT.
- 4) TRANSLATE JUDGMENT ONTO RESPONSE ALTERNATIVES.

OPTIMIZING!

Tourangeau, Rips, & Rasinski (2000)

5-minute activity:

USING COGNITIVE INTERVIEWING TECHNIQUES TO WALK THROUGH THE OPTIMAL RESPONSE PROCESS FOR YOUR QUESTIONNAIRE, REVISE IF NECESSARY.

Satisficing theory

SHORTCUTTING THE OPTIMAL RESPONSE PROCESS:

Satisficing

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WEAK SATISFICING: INCOMPLETE OR BIASED MEMORY SEARCH AND/OR
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Satisficing

SHORTCUTTING THE OPTIMAL RESPONSE PROCESS:

WEAK SATISFICING: INCOMPLETE OR BIASED MEMORY SEARCH AND/OR INFORMATION INTEGRATION

STRONG SATISFICING: SKIPPING MEMORY SEARCH AND/OR INFORMATION INTEGRATION ALTOGETHER AND CUEING OFF THE QUESTION OR CONTEXT FOR PLAUSIBLE ANSWERS

Krosnick (1991; 1999); Krosnick & Alwin (1987)

Causes of satisficing

- TASK DIFFICULTY
 - Interpretation (e.g. number of words, familiarity of words, multiple definitions)
 - Retrieval (e.g. current vs. past state, single vs. multiple objects or dimensions)
 - Judgment (e.g. absolute vs. comparative, decomposability)
 - Response selection (e.g. verbal vs. numeric scale labels, familiarity of words, multiple definitions of words)

Causes of satisficing

- TASK DIFFICULTY
- RESPONDENT ABILITY
 - Cognitive skills
 - Experience thinking about the topic
 - Preconsolidated judgments

Causes of satisficing

- TASK DIFFICULTY
- RESPONDENT ABILITY
- RESPONDENT MOTIVATION
 - Need for cognition
 - Accountability
 - Personal importance of the topic
 - Belief about survey's importance
 - Number of prior questions

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
 - Order of response options can affect answers
 - Visual presentation = primacy (the first reasonable response seen)
 - Oral presentation = recency (the most recent reasonable response heard)
 - “How nice is René?”
 - Extremely nice
 - Very nice
 - Somewhat nice
 - Slightly nice
 - Not at all nice

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
- AGREEING WITH ASSERTIONS
 - Acquiescence bias
 - You may run into this every time you order at Starbucks...

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
- AGREEING WITH ASSERTIONS
 - Acquiescence bias
 - You may know people that run into this every time they order at Starbucks...

“Is that with soymilk?”

“Yes”

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
- AGREEING WITH ASSERTIONS
 - Acquiescence bias
 - Agree-Disagree (Likert) scales
 - True/False
 - Yes/No
 - Generally avoid any form of these response scales

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
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 - Acquiescence bias
 - This can be **avoided** on every order at Starbucks...

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
- AGREEING WITH ASSERTIONS
 - Acquiescence bias
 - This can be **avoided** on every order at Starbucks...

“Is that with regular or soy milk?”

“...yes?”

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
- AGREEING WITH ASSERTIONS
- NON-DIFFERENTIATION IN RATINGS
 - Straightlining (worse in response grids)

9. Do you agree or disagree with the following statements?

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
The Anthill Pub should not reopen in the new Student Center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The current bicycle regulations are unfair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel adequately represented by our student government (USUCI).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greek life adds to the diversity of the campus community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Campus Shuttles are always on time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
- AGREEING WITH ASSERTIONS
- NON-DIFFERENTIATION IN RATINGS
- SAYING “DON’T KNOW” (DK)
 - Easier than thinking of an answer
 - DK/no opinion is not the same as selecting a neutral or middle alternative
 - Generally avoid DK/no opinion response options.

Forms of satisficing behavior

- SELECTING THE FIRST REASONABLE RESPONSE
- AGREEING WITH ASSERTIONS
- NON-DIFFERENTIATION IN RATINGS
- SAYING “DON’T KNOW”
- MENTAL COIN-FLIPPING

Combating satisficing

THERE ARE TWO PRIMARY LEVERS THAT WE CAN OPERATE ON TO REDUCE SATISFICING:

1. Task difficulty
 - › Make questions as easy as possible
 - › Minimize distractions
 - › Keep the duration short

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2. Respondent motivation

- › Leverage survey importance
- › Keep the duration short
- › Use incentives and disincentives to increase engagement

Response options

- OPEN VS. CLOSED QUESTIONS (MORE RELEVANT TO INTERVIEWER-ADMINISTERED MODES)
- RANKING VS. RATING
- NUMBER OF SCALE POINTS
- CONSTRUCT-SPECIFIC SCALES
- LABELS ON SCALE POINTS

Open questions

ASK OPEN QUESTIONS WHENEVER YOU CANNOT BE CERTAIN OF THE UNIVERSE OF POSSIBLE ANSWERS TO A CATEGORICAL QUESTION

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- “Other – specify” does NOT work
- The only way to be sure you know the universe of possible answers is to pretest the question extensively
- Ask open questions whenever eliciting a number

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RESPONSES TO OPEN QUESTIONS ARE OFTEN MORE RELIABLE AND MORE VALID

Open questions

COSTS:

- They take more time
- You have to code the responses
 - Variance and/or bias
 - More work for you

Ranking

EVALUATING RELATIVE PERFORMANCE, IMPORTANCE, PREFERENCE, ETC

“RANK THE FOLLOWING POLITICAL PARTIES IN ORDER OF MOST PREFERRED TO LEAST PREFERRED”

- Republican
- Democrat
- Independent

Ranking

METHODS OF RANKING

- Full ranking of all objects
- Partial ranking: e.g., 3 most important
- Minimal ranking: e.g., most important

Ranking

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- Full ranking of all objects
- Partial ranking: e.g., 3 most important
- Minimal ranking: e.g., most important

BENEFITS OF RANKING:

- Allows/forces absolute comparisons
- Non-differentiation isn't a problem
- Reliability is high

Ranking

- EASIEST TO DO IN SELF-ADMINISTERED QUESTIONNAIRES, SINCE RESPONDENT CAN SEE ALL THE ALTERNATIVES.

Ranking

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Example: Please rank the following customer service factors, from most to least important to you, when interacting with our agency.

[1= most important; 5 = least important]

	1 st	2 nd	3 rd	4 th	5 th
Call wait time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Call hold time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Representative's customer service skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Representative's knowledge/technical skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resolution of issue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ranking

- EASIEST TO DO IN SELF-ADMINISTERED QUESTIONNAIRES, SINCE RESPONDENT CAN SEE ALL THE ALTERNATIVES.
- Number of items to be ranked needs to be small or need to rank items only at the ends of the distribution.
 - Possible for large number of items to rank top X and the bottom X and then distinguish among the small "X" subset--e.g. which three qualities are most desirable; among these three, which is the most desirable.

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COSTS OF RANKING

- Difficult cognitive task, especially if all of the items are quite different or all very desirable or undesirable

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COSTS OF RANKING

- Difficult cognitive task, especially if all of the items are quite different or all very desirable or undesirable
- Can be time consuming
- Analysis is more complicated

Rating

“HOW MUCH DID YOU LEARN FROM THE QUESTIONNAIRE DESIGN WORKSHOP LECTURES?”

- A great deal
- A lot
- A moderate amount
- A little
- Nothing at all

Rating

BENEFITS:

- EASIER FOR RESPONDENTS AND EASIER TO ANALYZE THE DATA

Rating

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- CAN BE CHEAPER (FASTER, CAN BE USED ON PHONE)

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COSTS:

- LESS EFFORT MAY LEAD TO LOWER DATA QUALITY

Rating

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- RESPONSES ARE LESS RELIABLE OVER TIME

Rating

BENEFITS:

- EASIER FOR RESPONDENTS
- EASIER TO ANALYZE THE DATA
- PREFERRED BY RESPONDENTS

COSTS:

- LESS EFFORT MAY LEAD TO LOWER DATA QUALITY
- RESPONSES ARE LESS RELIABLE OVER TIME
- SUSCEPTIBLE TO RESPONSE STYLE
 - Avoiding ends of scales, acquiescence etc.
 - May lead to correlated response patterns

Ranking vs. Rating

WHAT TO DO?

- WHEN LIFE FORCES CHOICES, USE RANKING
- OTHERWISE USE RATINGS
 - Beware of non-differentiation

3-minute activity

WITH SATISFICING AND RESPONSE OPTIONS IN MIND, DISCUSS THE PROS AND CONS OF YOUR CURRENT SURVEY DESIGN.

Number of scale points

- GOALS:
 - Differentiate between meaningful levels of a construct

Number of scale points

- GOALS:
 - Differentiate between meaningful levels of a construct
 - Avoid ambiguity between scale points

Number of scale points

- GOALS:
 - Differentiate between meaningful levels of a construct
 - Avoid ambiguity between scale points
 - Maximize reliability

Number of scale points

USE 7-POINT SCALES FOR BIPOLAR CONSTRUCTS
(E.G. EXTREMELY GOOD-EXTREMELY BAD)

- Use bipolar scales for bipolar constructs

Number of scale points

USE 7-POINT SCALES FOR BIPOLAR CONSTRUCTS
(E.G. EXTREMELY GOOD-EXTREMELY BAD)

USE 5-POINT UNIPOLAR SCALES FOR UNIPOLAR CONSTRUCTS
(E.G. INSTRUCTOR CARED A GREAT DEAL-INSTRUCTOR DIDN'T CARE AT ALL)

Number of scale points

USE MIDDLE ALTERNATIVES, ESPECIALLY WITH BIPOLAR SCALES

Number of scale points

USE MIDDLE ALTERNATIVES, ESPECIALLY WITH BIPOLAR SCALES

USE BRANCHING TO GET MORE DETAILED BIPOLAR MEASURES

- GENERALLY SPEAKING, DO YOU CONSIDER YOURSELF TO BE A DEMOCRAT, REPUBLICAN, INDEPENDENT, OR WHAT?

Number of scale points

USE MIDDLE ALTERNATIVES, ESPECIALLY WITH BIPOLAR SCALES

USE BRANCHING TO GET MORE DETAILED BIPOLAR MEASURES

- GENERALLY SPEAKING, DO YOU CONSIDER YOURSELF TO BE A DEMOCRAT, REPUBLICAN, INDEPENDENT, OR WHAT?
 - Would you say you are a very strong (X), somewhat strong, (X), somewhat weak (X), or very weak (X)?
 - Would you say you lean toward one party or the other? (for Independents)

Use construct-specific response scales whenever possible

GENERIC LIKERT:

“THE INSTRUCTOR CARED ABOUT PARTICIPANT LEARNING”

- Strongly Agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Use construct-specific response scales whenever possible

CONSTRUCT-SPECIFIC:

“HOW MUCH DID THE INSTRUCTOR CARE ABOUT PARTICIPANT LEARNING?”

- A great deal
- A lot
- A moderate amount
- A little
- Not at all

Labeling scale points

GOALS:

- RESPONDENTS SHOULD FIND IT EASY TO INTERPRET THE MEANINGS OF THE SCALE POINTS.

Labeling scale points

GOALS:

- RESPONDENTS SHOULD FIND IT EASY TO INTERPRET THE MEANINGS OF THE SCALE POINTS.
- RESPONDENTS SHOULD BELIEVE THE MEANINGS OF EACH SCALE POINT TO BE CLEAR.

Labeling scale points

GOALS:

- RESPONDENTS SHOULD FIND IT EASY TO INTERPRET THE MEANINGS OF THE SCALE POINTS.
- RESPONDENTS SHOULD BELIEVE THE MEANINGS OF EACH SCALE POINT TO BE CLEAR.
- ALL RESPONDENTS SHOULD INTERPRET THE MEANINGS OF THE SCALE POINTS IDENTICALLY.

Labeling scale points

GOALS:

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- ALL RESPONDENTS SHOULD INTERPRET THE MEANINGS OF THE SCALE POINTS IDENTICALLY.
- THE LABELS SHOULD DIFFERENTIATE RESPONDENTS FROM ONE ANOTHER VALIDLY AS MUCH AS POSSIBLE.

Labeling scale points

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- RESPONDENTS SHOULD FIND IT EASY TO INTERPRET THE MEANINGS OF THE SCALE POINTS.
- RESPONDENTS SHOULD BELIEVE THE MEANINGS OF EACH SCALE POINT TO BE CLEAR.
- ALL RESPONDENTS SHOULD INTERPRET THE MEANINGS OF THE SCALE POINTS IDENTICALLY.
- THE LABELS SHOULD DIFFERENTIATE RESPONDENTS FROM ONE ANOTHER VALIDLY AS MUCH AS POSSIBLE.
- THE RESULTING SCALE INCLUDE POINTS THAT CORRESPOND TO ALL POINTS ON THE UNDERLYING CONSTRUCT'S CONTINUUM.

Labeling scale points

NUMBERS ALONE SEEM AMBIGUOUS – GENERALLY BEST TO OMIT THEM

LABEL ALL SCALE POINTS – LABELS MAY ATTRACT PEOPLE IF ONLY SOME POINTS HAVE THEM

RESPONDENTS PRESUME EQUAL SPACING OF SCALE POINTS AND THE UNDERLYING CONSTRUCT CONTINUUM – REINFORCE THIS WITH LABELS

5-minute activity

CONSIDERING THE RESEARCH ON RESPONSE OPTIONS AND SCALE POINTS,
REVIEW YOUR QUESTIONNAIRE AND REVISE IF NEEDED.

Using an Existing Question vs. Creating Your Own

USING A WELL-ESTABLISHED QUESTION WITH KNOWN RELIABILITY, VALIDITY AND DIMENSIONALITY IS GOOD PRACTICE

Using an Existing Question vs. Creating Your Own

USING A WELL-ESTABLISHED QUESTION WITH KNOWN RELIABILITY, VALIDITY AND DIMENSIONALITY IS GOOD PRACTICE

BUT IT IS ESSENTIAL TO CHECK IF THE WELL-ESTABLISHED QUESTION IS RIGHT FOR

- YOUR PURPOSE
- YOUR POPULATION
- YOUR POINT IN HISTORY
- ETC.

Using an Existing Question vs. Creating Your Own

THREE SCENARIOS:

1. IF CLOSE FIT BETWEEN YOUR RESEARCH AND EXISTING QUESTION – USE EXISTING QUESTION

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2. IF NO EXISTING QUESTION EXISTS – CREATE YOUR OWN
3. IF ONLY LOOSE FIT WITH EXISTING QUESTION OR QUALITY OF EXISTING QUESTION IS DOUBTED – CREATE YOUR OWN QUESTION, PRETEST BOTH YOUR NEW ONE AND THE ESTABLISHED ONE AND COMPARE. MAY WANT TO KEEP BOTH IN THE FIELDDED SURVEY AS WELL.

Question wording

GOALS:

- UNIVOCALITY
 - Only mention the construct that you want to measure
 - Avoid double-barreled questions

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- MEANING UNIFORMITY
 - Each question should mean the same thing to all respondents
- ECONOMY OF WORDS
 - Use as many words as are needed to convey the idea clearly to all respondents...and no more

Question wording

WORD SELECTION GUIDELINES:

- Select words with one meaning (dictionary)
- Simple words (few syllables)
- Simple sentences (few words)
- Readability scores
- Homonyms (fare/fair)
- Heteronyms (lead/lead)

Question wording

IN GENERAL QUESTIONS SHOULD BE WORDED TO:

- Be simple, direct, comprehensible
- Not use jargon
- Be specific and concrete (rather than general and abstract)
- Avoid ambiguous words
- Avoid double-barreled questions
- Avoid negations
- Avoid leading questions
- Include filter questions
- Be sure questions read smoothly aloud
- Avoid emotionally-charged words
- Avoid prestige names
- Allow for all possible responses

Question order

CONVENTIONAL WISDOM:

- EARLY QUESTIONS SHOULD BE EASY/PLEASANT

Question order

CONVENTIONAL WISDOM:

- EARLY QUESTIONS SHOULD BE EASY/PLEASANT
- ASK ANY OPEN-ENDED QUESTIONS EARLY BECAUSE THEY ARE COGNITIVELY DEMANDING

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- ORDER GROUPS OF QUESTIONS IN WAYS THAT MINIMIZE RESPONDENT EFFORT AT SEARCHING LONG-TERM MEMORY FOR NEEDED INFORMATION
- WHEN POSSIBLE RANDOMLY VARY QUESTION ORDER ACROSS RESPONDENTS (EVEN RANDOMIZING WITHIN SECTIONS CAN HELP)

You've just built or edited a questionnaire...now what?

SEND IT OUT FOR REVIEW

- Collaborators, colleagues, friends, experts, etc can all help catch problems that you didn't notice

DO A FEW COGNITIVE INTERVIEWS

- “How did you get to that response?”

PRETEST

- Always pretest a new questionnaire on non-experts (and non-academics) even if it's only been edited

Review

- BEGIN FROM RESEARCH QUESTION AND BUILD TO SURVEY QUESTION
- THINK ABOUT THE DIFFERENCES BETWEEN WHAT QUESTIONS AND ANSWERS MEAN TO YOU VS. RESPONDENTS
- BE AWARE OF THE COGNITIVE RESPONSE PROCESS – AND MAKE IT EASY
- SATISFICING IS A BIG THREAT – DON'T ENABLE IT WITH YOUR QUESTIONNAIRES
- CHOOSE RESPONSE OPTIONS CAREFULLY
- QUESTION WORDING MATTERS – PRETESTING IS KEY
- QUESTION ORDER CAN INFLUENCE RESPONDENTS AND RESULT IN BOTH INDIVIDUAL AND AGGREGATE BIASES

Shameless self-promotion

IMPROVING ACCURACY/HONESTY FOR FACTUAL QUESTIONS ON AFFECTIVELY CHARGED ISSUES

- The problem of “expressive” responding
- Can respondents be persuaded or incentivized to not use the survey as a soap-box?
- What types of questions elicit these behaviors?
 - Can these behaviors be predicted/interdicted?

I'M ALWAYS LOOKING FOR NEW COLLABORATORS/DATA!

Further reading

“SURVEY RESEARCH”

KROSNICK (ANN. REV. PSYCH, 1999)

“THE PSYCHOLOGY OF SURVEY RESPONSE”

TOURANGEAU, RIPS, & RASINSKI (2000)

“THE SCIENCE OF ASKING QUESTIONS“

SCHAEFFER & PRESSER (ANN. REV. SOC, 2003)

“THINKING ABOUT ANSWERS”

SUDMAN & BRADBURN (1996)

“QUESTION AND QUESTIONNAIRE DESIGN”

KROSNICK & PRESSER (IN THE HANDBOOK OF SURVEY RESEARCH, 2010)

“ANSWERING QUESTIONS: A COMPARISON OF SURVEY SATISFICING AND MINDLESSNESS”

VANNETTE & KROSNICK (THE WILEY BLACKWELL HANDBOOK OF MINDFULNESS, 2014)

Thanks!

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