Preview Questions

1. What are the four cornerstones of quality surveys?
2. What has changed about surveying in the last 20 years?
3. What is the advantage of mixed-mode data collection?
4. How is the tailored design method different from other surveying methods?
5. What surveying challenges does the tailored design method address?

Reading Summary

Introduction

* There are numerous reasons for conducting a survey.
  + Understanding how attitudes about a topic vary with other characteristics is often the objective of the survey sponsor.
* There are also numerous uses for survey results.
  + Making capital investment decisions.
  + Setting policy.
* Surveys can be large or small.
  + Q: what is considered a large survey?
* Most surveys are based on samples of a target population.
  + Carefully selected sample surveys enable researchers to make inferences about a population that are only slightly less precise than a census of the entire population and much less costly.
* Non-survey methods used to collect data
  + Unstructured interviews
  + Focus groups
  + Participant observation
  + Content analysis
  + Simulations
  + Small group experiments
  + Records analysis
* A census is the opposite of a sample survey.
  + 100 percent of the target population is surveyed.

Four Cornerstones of Quality Surveys

* Minimizing the four main types of errors
  + Coverage error 🡪 sample frame does NOT accurately represent the population on the characteristic of interest.
  + Sampling error 🡪 difference between the estimate from sample survey and estimate from census survey
  + Nonresponse error 🡪 difference between the estimate generate when only some sampled units respond and estimate when all sampled units respond
  + Measurement error 🡪 difference between the estimate produced from the survey and the true value caused by inaccurate respondent answers
    - Types
      * Response bias 🡪 systematic shift in estimates
      * Response variance 🡪 variability in estimates of the same attribute taken over time
    - Causes
      * Poor question design
      * Survey mode effects
      * Interviewer behavior
      * Respondent behavior
      * Data collection mistakes
* Total Survey Error (TSE) framework attempts to minimize data inaccuracy within unavoidable constraints.
  + Often focuses on discrete actions.
  + Attempts to simultaneously control all four types of errors.

What Is Different About Surveying in the 2010s

* Many more ways of contacting survey respondents and more ways for respondents to complete surveys.
* Less need for an intermediary (i.e., interviewer) between surveyor and respondent.
* Traditional methods are still used for a variety of reasons.
* We can now connect with roughly 98% of U.S. households but there are more buffers that filter out unsolicited messages such as surveys.
* Traditional sample frames no longer provide the desired coverage of some populations.
* Different characteristics for different populations that prefer one communication medium over others.
* Web-based surveys have not lived up to their potential.
* Mail surveys are considered less desirable because they tend to have lower response rates and don’t enable intensive branching.
  + Up to 97% of U.S. households are accessible via mail surveys.
  + Mail has the lowest response rate and highest cost per response
* Single mode surveys are generally not as effective as they once were.

Why Emphasize Mixed-Mode Data Collection?

* More likely to minimize the four major sources of error and survey costs.
* Possibilities:
  + Offering respondents more than one way to complete a survey.
  + Contacting respondents in multiple ways even when only one collection method is used.
  + Creating synergy between contacts via different modes.
    - Postal request followed by an email with an electronic link to a web survey.
* Four types of mixed-mode surveys:
  + Type 1: Use one survey mode to encourage response by another mode.
  + Type 2: Use multiple survey modes to collect responses from the same respondent.
  + Type 3: Use multiple survey modes to collect responses from different population segments.
  + Type 4: Use multiple survey modes to collect responses from the same respondent at different times.
* Effect of four types of mixed-mode surveys
  + Types 1, 3 & 4 focus on minimizing coverage and nonresponse error.
  + Type 2 focuses on minimizing measurement error.
* Single-mode data collection still has value.
  + Mixed-mode data collection may be impractical or ineffective.

What is Tailored Design and Why Is It Needed?

* Researchers must tailor their survey designs to their situations.
* No simple set of procedures for designing surveys.
* Key considerations when designing surveys.
  + Topic knowledge
  + Survey sponsor objectives
  + Target population
  + Available resources
* Fundamental considerations
  + Reducing total survey error may undermine the quality of the information collected.
  + Survey procedure elements must operate synergistically to encourage all sample members to respond to the survey.
  + Build positive social exchange to encourage responses.

Preview Questions

1. What is social exchange theory?
2. How can social exchange theory be used to increase response rates?
3. What are the basic guidelines for applying social exchange theory to surveys?
4. What are the differences in how social exchange theory is applied to mixed-mode survey designs?
5. Why did the WSU doctoral student experience survey generate such a high response rate?

Reading Summary

Introduction

* Must reconcile contrasting views of survey sponsors and potential survey respondents.
* Survey request is usually an annoyance and intrusion for potential survey respondents.
  + Disinterest in the topic
  + Uncertainty about the requestor
  + Concerns about privacy
  + Concerns about security
* Surveyor actions often reinforce or exacerbate the concerns of potential survey respondents.
* Approach to addressing concerns of potential survey respondents is based on social exchange theory.
* Mixed-mode data collection is increasingly required because of changes in technology and communication patterns.

Example of a Survey with a High Response Rate

* Target population was doctoral students that had completed preliminary examination.
* One month for data collection
* Mail request with $2 incentive followed by an email with an electronic link. This was followed by a second email request then a second mail request offering the option of responding by mail. Finally, a third email request was sent.
* Cumulative response was 77 percent.
* Offering choice of multiple survey modes in initial request rather than at a later point tends to decrease final response rates 🡪 it complicates the potential respondent’s decision.

Using Social Exchange Concepts to Motivate Potential Respondents

* Theories suggesting what might motivate potential respondents
  + Cognitive Dissonance Theory 🡪 appeal to people’s desire to be act consistently with their past behavior
  + Reasoned Action Theory 🡪 appeal to positive attitudes toward surveys and subjective norms
  + Adult-to-Adult Communication Style 🡪 do not speak down to potential respondents
  + Influence Theory 🡪 Emphasizes scarcity of opportunity, reciprocation by respondents, and social proof
  + Leverage-Saliency Theory 🡪 Make positive features more salient and negative features less salient
  + Cost-Benefit Theory 🡪 Focus explicitly on costs and benefits for respondents
  + Gamification Theory 🡪 Make responding to surveys seem game like
* The above theories are psychological in nature.
* Sociological focus is concerned with how the survey materials fit with general culture in a way that affects response behavior.
* Social exchange theory
  + Compliance with a request more likely when people believe and trust that the rewards for complying will eventually exceed the costs of complying.
    - Q: Must rewards be individual in nature?
  + Not the same as economic exchange.
    - Only a general expectation of positive return.
    - Exact nature of benefits and why they will be provided are often not specified in advance (i.e., trust in the likely outcome rather than explicit bargaining).
    - Benefits can be social, psychological, economic, etc.
    - Not a rational behavior model.
* All decisions that individuals make about social interactions (e.g., completing a survey) are NOT always or even mostly the result of lengthy, careful consideration.
* Decision to respond to a web or mail survey is generally made in the first couple of days; most potential respondents decide almost immediately.
* Examples of influencers of potential respondent decision
  + Cultural influences
  + Respect for the requestor
  + Wanting to do interesting things

Does Social Exchange Still Apply in Today’s Asynchronous and Rapid-Fire Communication Environment?

* Social exchange theory developed during a time when society was significantly different than it is today.
* There is now more spontaneous social interaction.
* Social interactions are more distantly remote.
* People still make decision considering cost, benefits, and trust.
* Social exchange concepts may be more relevant in today’s environment.

Increasing the Benefits of Survey Participation

* Benefits to responding to surveys are likely limited.
* Many things people do for which they feel satisfaction involve helping others.
* Ways of increasing emotional satisfaction-based benefits for potential respondents
  + Specify how the survey results will be helpful
  + Ask for help or advice
  + Ask interesting questions
  + Sponsorship by a legitimate organization
  + Stress that opportunities to respond are limited
  + Convey that others have responded
  + Use incentives to encourage, but not require, reciprocity
    - Small advance incentive combined with a larger postpaid contingent incentive is often effective.
    - Incentives often help reduce nonresponse error.
    - Does NOT seem to have substantial effect on data quality.
  + Leverage the additive effects of benefits
    - Using several techniques in combination will generally increase response rates more than using just a single technique.
  + Do NOT deny the existence of benefits
    - Required IRB disclaimers often deny the existence of benefits

Decreasing the Costs of Participation

* Reduce the burden of length
* Reduce complexity
  + Respondents feel an increased sense of burden when they question whether they can provide accurate answers to survey questions.
* Use visual design principles to make questionnaires easier to complete
* Avoid subordinating language
  + Don’t make potential respondent feel obligated or beholden.
* Make responding convenient
* Don’t make potential respondents use survey modes that are uncomfortable for them.
* Don’t offer a choice of response mode in the initial request
* Minimize requests for personal and sensitive information
* Show similarity to other previous response to requests
  + Foot-in-the-door technique 🡪 make a small request followed by a larger request after compliance with the small request

Establishing Trust

* Trust is likely the single most important issue affecting response rates to surveys.
* Relevant to all survey modes.
* Survey sponsors should NOT make promises about benefits they can’t guarantee.
* Ways of instilling trust
  + Provide ways for potential survey respondents to confirm the authenticity of the survey
  + Emphasize sponsorship by a legitimate authority
  + Build upon previously established relationships and friendships
  + Provide a token of appreciation in advance
  + Assure confidentiality and protection of data
    - Excessively detailed explanations in situations with low data sensitivity will often raise concerns and deter response.
  + Design professional communications
    - Make each contact appear important
      * Personalized cover letters
      * Including a relevant picture on front of questionnaire
      * Provide information about the survey project
    - Do NOT make the survey information appear too much like a brochure

It’s More than Just Getting People to Respond

* Always consider response rates in conjunction with nonresponse error.
  + Do NOT increase response rates by obtaining data from uncertain types of respondents.
  + Avoid biasing the survey.
  + Do NOT employ techniques that have differential appeal to different segments of the target population.

Putting the Parts Together: Some Guidelines for Applying Social Exchange

* Use a holistic approach to survey design.
  + Consider all features of the survey effort; do NOT focus on just one element.
  + Communication occurs in multiple places within the elements of the survey.
  + The more information presented, the less likely potential respondents will remember it.
  + Survey requests that repeat the same content repeatedly don’t increase response rates.
* Social exchange concepts should be applied differently depending on the survey population, topic, sponsorship, and survey modes available.
  + The same elements don’t have to be used in very situation.
* Identify and evaluate whether to change or eliminate design constraints that are especially likely to have a negative impact on response and data quality.

Mixed-Mode Designs Provide New Opportunities for Applying Social Exchange

* Use multiple modes of communication to gain more opportunities to increase benefits, decrease costs, and build trust.
  + Mode of response does not need to be synonymous with the mode of contact.
  + Difficult to develop trust and convey benefits with single-mode survey designs.
* Use multiple modes of response to increase benefits, decrease costs, and build trust.
  + Potential survey respondents may be more receptive to one mode over others.
  + Alternative mode can provide a different stimulus.
* Utilize knowledge from past research and feedback from early contacts to adapt implementation procedures to reduce nonresponse error.
  + Communications via a different mode than the previous mode used are less likely to be ignored.
  + Adaptive design (also called responsive design) involves adjusting procedures during the data collection processed based on observations about the types of individuals who are responding and not responding.

Preview Questions

1. What issues does one need to consider when preparing survey questions?
2. What are the components of a survey question?
3. What are the different types of survey question formats?
4. What are the key guidelines for choosing words and forming survey questions?

Reading Summary

Introduction

* Challenge of writing survey questions
  + Every potential respondent willing to answer.
  + Every potential respondent will interpret the question the way the surveyor intends.
  + Every potential respondent will be able to answer accurately.

Issues to Consider When Starting to Craft Survey Questions

* First consider what concepts need to be measured.
  + Write clear research questions or statements.
  + Define what is meant and not meant by each concept in the research question.
  + Break down concepts until you get to domains and subdomains that can be measured with a single question.
* Benefits of considering what concepts need to be measured before preparing survey questions:
  + Helps identify what one really wants to measure.
  + Helps reduce the chances of forgetting to ask about important concepts.
  + Helps ensure that one asks questions that measure what is intended to be measured.
* Investigate whether measures for the essential concepts have already been used in other surveys.
  + Sources of existing surveys
    - Inter-University Consortium for Political and Social Research (ICPSR)
    - iPOLL databank maintained by Roper Center for Public Opinion Research
* Consider the type of information a question is asking for.
  + Factual and demographic details are information that respondent have readily available and may be willing to share.
  + Attitudes and opinions are types of information that respondents may need time to answer and may not be willing to share.
    - Context can influence answers to these types of questions.
      * Preceding question
      * Type of response
      * Visual layout
  + Behaviors and events are also types of information that present additional challenges.
    - Memory fades over time.
    - Mundane events and individual episodes usually not precisely remembered.
    - People do not categorize this type of information by precise month and year.
* Consider what survey modes will be used to ask the questions.
  + Interviewer-administered surveys
    - Interviewer can provide extra motivation and assistance to respondents
    - Clarify the meaning of questions
    - Probe for more complete answers
    - Typically progress faster than self-administered surveys
    - Surveyor has less control over the survey delivery
    - Risk of social norms impacting measurement
      * Social desirability is the tendency to provide answers that put one in a positive light with the person asking the question.
        + Normative question order effects occur when respondents adjust their answers to later questions taking into account their answers to earlier questions to put themselves in a positive light with the interviewer.
      * Acquiescence is the tendency to agree with someone rather than disagree.
    - Interviewer bias is when the shift in estimates for a measure can be attributed to the presence of an interviewer.
      * Can also result from fixed interviewer characteristics such as gender and race; generally, only an issue when the question is directly related to the characteristic.
      * Interviewer experience can also influence respondent answers.
      * Reward structure for interviewers is often based on productivity measures rather than quality measures.
    - Interviewer variance is when different interviewers influence estimates in different ways.
      * Interviewers administer the same question differently.
      * Interviews conducted by the same interviewer are often more similar than interviews conducted by different interviewers which produces a clustering effect.
        + Interclass correlation (rho) can be used to measure this effect
  + Aural and visual communication modes
    - Voice characteristics influence telephone surveys
      * Words, inflection, tone
      * Respondents must rely on their working memory
    - Visual layout influences written questions
    - Primacy and recency effects influence survey measurements
      * Primacy is the tendency to choose from among the first categories offered regardless of their content.
      * Recency is the tendency to choose from among the last categories offered regardless of their content.
      * Which is more likely to occur partly depends on how the categories are communicated to the respondent.
  + Computerization
    - Eliminates skip pattern errors.
    - Enables fills (i.e., when answers to one question are incorporated into later questions).
    - Enables validation of answers using previous questions.
* Consider whether the question is being repeated from another survey or if the answers will be compared to previously collected data.
  + Will influence how much the question can be changed.
* Consider if respondents will be willing and motivated to answer the question accurately.
  + Motivation problems may stem from poor question design.
    - Question is difficult to read or understand.
    - Instructions are hard to find.
    - Response options are vague.
    - Question is too personal.
    - Objectionable wording of response options.
  + Think about the process respondents will use when trying to answer a question.
    - Perception
    - Comprehension
    - Retrieval
    - Formulation
    - Response

The Anatomy of a Survey Question and Types of Question Formats

* Components of a survey question:
  + The question stem is comprised of the words that form the actual query.
  + Additional instructions (e.g., definitions, examples)
  + Answer spaces or choices
* Open-ended questions preferable when the surveyor does not want to influence respondent answers by providing a set of answer choices (i.e., goal is to collect rich, detailed information).
  + In self-administered surveys, more respondents skip open-ended questions.
  + Nonresponse bias may be present in self-administered surveys.
  + Must be coded before they can be analyzed.
* Closed-end questions significantly influenced by response options provided.
  + Can use nominal or ordinal categories.
* Partially closed-ended question includes a set of response categories and an “other” response option.
  + Respondents are more likely to select among the categories provided.

Guidelines for Choosing Words and Forming Questions

* Choose the appropriate question format.
  + Recommended to vary the question format within the survey to improve measurement and ensure the usefulness of the final data.
  + Varying the format may also add variety and interest for respondents.
* Make sure the question applies to the respondent.
  + Rule of thumb: a survey question must require an answer from each person to whom it is asked.
  + Use filter questions.
  + Don’t make assumptions about the respondents.
  + Including an “if” qualifying is problematic.
    - Can’t distinguish between non-respondents and those to whom the question did not apply.
* Ask one question at a time.
* Make sure the question is technically accurate.
  + Using specialized terms accepted among the survey population will usually produce more accurate results.
  + If necessary, consult experts or members of the target population when preparing survey questions.
  + Technical inaccuracies can diminish the perceived credibility and legitimacy of the surveyor.
* Use simple and familiar words.
  + Rule of thumb: substitute a shorter, more easily understood word for one with six or more letters.
  + Avoid abbreviations and specialized phrases not understood by the target population.
  + Pretest survey questions with members of the target population of interest to identify potential problems.
* Use specific and concrete words to specify the concepts clearly.
* Use as few words as possible to pose the question.
* Use complete sentences that take a question form and use simple sentence structures.
  + Use interrogative sentences, not imperative sentences.
* Make sure “yes” means yes and “no” means no.
  + Do NOT use double negatives.
* Organize questions in a way to make it easier for respondents to comprehend the response task.
  + Place response options at the end of the question stem.
  + Do NOT include response options as part of the question stem.

Preview Questions

1. What are the guidelines for writing open-ended questions?
2. What are the guidelines for writing all types of closed-ended questions?
3. What are the guidelines for writing nominal closed-ended questions?
4. What are the guidelines for writing ordinal closed-ended questions?

Reading Summary

Introduction

* Very different results can be obtained depending on how a question is asked.

Guidelines for Writing Open-Ended Questions

* General comments
  + Types of open-ended questions
    - Descriptive
    - Numerical response
    - List of items
  + Responds have a great deal of flexibility in how to answer the question.
* Specify the type of response desired in the question stem.
  + Specify a response unit.
* Avoid making respondents and interviewers calculate sums.
* Provide extra motivation to respond.
  + Particularly important for descriptive open-ended questions, which impose a higher cost on the respondent.
  + Examples
    - Provide additional explanation of the importance of the question.
      * Loses effectiveness if used more than a few times per survey.
* Use nondirective probes to obtain more information on open-ended questions.
  + Examples
    - Are there any others? (relevant for lists)
    - Is there anything else? (relevant for descriptive open-ended questions)
    - How do you mean that? (relevant for descriptive open-ended questions)
    - Tell me more about that? (relevant for descriptive open-ended questions)
  + It’s important not to bias the response when using probing questions.
  + The type of probe used will influence the amount and type of information received.

General Guidelines for Writing All Types of Closed-Ended Questions

* State both positive and negative side response options in the question stem for either/or types of questions.
* Develop lists of answer categories that include all reasonable possible answers.
* Develop lists of answer categories that are mutually exclusive.
* Consider what type of answer spaces are most appropriate for the measurement intent.
  + Generally, it takes respondents longer to answer visual analog scales than scales with radio buttons.
  + Avoid drop-down menus when possible because they present several difficulties.
  + Avoid presenting drop-down menus with only some of the response options visible from the outset.
  + Only use dynamic and interactive response features when one is certain they will provide better data without increasing response burden.

Guidelines for Nominal Closed-Ended Questions.

* Ask respondents to rank only a few items at once rather than a long list.
* Avoid bias from unequal comparisons.
  + Do not use value connotations in response options.
* Randomize response options if there is concern about order effects.
  + Anchoring is when respondents us an early response option as a standard of comparing later response options.
* Use forced-choice questions instead of check=all=that=apply questions.

Guidelines for Ordinal Closed-Ended Questions.

* General comments
  + Two types of closed-ended ordinal scales
    - Vague quantifier response options
      * Widely used because they reduce cognitive burden on respondents.
    - Natural metric response options
* Choose between a unipolar and bipolar scale.
  + Unipolar scale 🡪 zero falls on one end of the scale.
  + Bipolar scale 🡪 zero falls in the middle of two dimensions.
  + Which is used depends on the underlying construct.
* In general, limit scales to no more than five categories.
  + Too few scale points often result in response error.
  + Too many scale points result in clustering.
  + Scales of four or five categories have been shown to be more reliable and valid.
  + Non-substantive response options should NOT be used a midpoint; they should be placed at the end of the scale.
    - Research suggests that including or excluding a midpoint has little effect on data quality and analysis.
    - Research suggest that it generally makes no difference whether the most positive category is presented first or the most negative category is present first.
    - Scales should be presented consistently throughout the survey.
* Choose direct or construct specific-labels to improve cognition.
  + Make sure the response option scale matches the way the question is posed.
  + Reduces acquiescence and cognitive burden 🡪 less measurement error
  + Avoid the agree/disagree and satisfied/dissatisfied question format when these are not the construct being measured.
* Use natural metric instead of vague quantifiers whenever possible.
  + Be cognizant of reference point effects.
* Provide balanced scales where categories are relatively equal distances apart conceptually.
  + Equal number of positive and negative categories in bipolar scales.
  + Allows one to treat scalar results as interval-level variables.
* Verbally label all categories.
  + Polar-point scales have labels only at the endpoints of the scale.
    - Meanings of unlabeled midpoints are open to interpretation by respondents, which increases measurement error.
  + Fully labeled scales rate higher on reliability, validity, and respondent preference.
  + Fully labeled scales less susceptible to context effects.
* Remove numeric labels from vague quantifier scales whenever possible.
* Consider branching or decomposing bipolar scales to ease respondent burden and improve data quality.
  + Bipolar scales require respondent to consider direction and intensity.
  + Branching increases reliability and validity.
  + Don’t use branching if results will be combined or compared with other data that was not collected using branching because they will have different response distributions.
* Provide scales that approximate the actual distribution of the characteristic in the population.
  + Respondents are more likely to estimate mundane occurrences and are more likely to recall memorable events.
  + Asking the question using an open-ended format avoids the risk of biasing the response if the distribution is not known.

The Challenges of Writing Ordinal Closed-Ended Questions

* Survey designers must choose response options carefully.
* Respondents use the response option scale as a source of information about the distribution of options when making their selection.