

Questionnaire Design

BUS 230: Business Research and Communication

Goals and Learning Objectives

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- Goals of this chapter:
 - Identify survey questions / variables needed to answer a research question.
 - Understand benefits and problems with open ended and fixed-alternative questions.
 - Be able to phrase questions to limit respondent bias.
 - Be able to order questions to limit respondent bias.
- Learning objectives:
 - LO2: Recognize and use the appropriate techniques to collect or use survey data to address a research problem.
 - LO2.C: Identify sources of respondent and administrative error and develop the ability to construct and administer a survey instrument that minimizes these errors.

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Basic Principles

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- 2 How should questions be phrased?
- 3 How should questions be sequenced?

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What should be asked?

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- Get data on relevant outcome variables.
- Get data on background variables and other explanatory variables.
- Example: Living on campus and academic performance
 - Outcome variables: semester GPA, cumulative GPA, frequency using campus resources, extra curricular activities.
 - Relevant explanatory variables: high school GPA, parents' income, year in school.
- Be careful not to ask too many questions! This can decrease response rate.

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Open-ended Questions

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- **Open-ended questions** can serve uses that fixed alternative questions cannot:
 - How can service be improved?
 - Viterbo might want to ask: What Viterbo community events are you aware of?
- Can get deeper answers, reasoning behind answers.
- Useful for exploratory research, though not exclusively.
- Responses can be grouped together into categories after data has been collected.
- Might be useful to even count number of responses to a particular question.

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Problems with Open-Ended Questions

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- Greater chance for respondent biases.
 - *Average person effect*: individual may not want to give a response he or she may expect is unusual.
 - *Social desirability effect*: individual may give untrue responses to demonstrate he or she cares about an issue.
 - *Acquiescence bias*: individual may give a response to placate the interviewer.
- Questions and/or expectations for answers may be unclear.
- Less anonymity: face-to-face, hand writing, or even choice of words or reasoning can expose respondents.

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Fixed Alternative Questions

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- **Fixed-alternative questions:** questions where the interviewer provides only a limited number of answers to choose from.
- Simple dichotomous questions: respondent must pick one and only one of two possible alternatives.
 - Have you attended any UW-L varsity athletic sporting events in the last year? Yes ☐ No ☐
- Determinant-choice questions: respondent chooses one and only one choice from 3 or more options.
- What is your current academic status?
 - ☐ Freshman (undergraduate degree seeking / less than 30 credits accumulated)
 - ☐ Sophomore (undergraduate degree seeking / 30 or more credits and less than 60 credits accumulated)
 - ☐ Junior (undergraduate degree seeking / 60 or more credits and less than 90 credits accumulated)
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Avoid Problems with Determinant Choice Questions 7/ 17

- Don't force invalid responses: make sure your choices are **totally exhaustive**.
- Make sure the correct choice is clear:
 - Make sure wording is sufficient and appropriate (notice definitions about college year)
 - Make sure choices are **mutually exclusive**.
- Impossible for respondents to explain, clarify, or qualify an answer:
 - Do you think women should be able to legally get an abortion? Yes / No.

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Frequency Determination Questions

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- **Frequency determination questions:** Questions which ask for how often some occurrence generally happens.
- How often do you study for your classes, besides completing homework assignments?
 - ☐ One or more times every day.
 - ☐ 4-6 times per week
 - ☐ 2-3 times per week
 - ☐ Once per week
 - ☐ One or two times per month.
 - ☐ Less than one time per month.
- Look out for:
 - Should you expect frequency to be constant, or does it change by season, semester, etc?
 - Is it reasonable to suppose respondent can accurately recall frequency, according to your scale?
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Checklist Questions

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- **Checklist question:** fixed-alternative question that allows respondent to provide multiple answers to a question.
- Please check which of the following sources of media you use at least twice per week, if any:
 - ☐ Facebook.
 - ☐ Network television.
 - ☐ Cable television.
 - ☐ *La Crosse Tribune*.
- Offers more flexibility than other fixed-alternative questions.

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Questionnaire Accuracy

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- Write questions that generate accurate answers.
- Questions should have answers that are easy to recall.
- Be careful with questions regarding quantity or frequencies: make sure it is reasonable for respondents to accurately report these.
- Do the following questions have accuracy problems? How would you fix it?
 - How many hours per week do you usually study?
 - How many hours do you spend each week on Facebook?
 - How many hours per week do you skip classes?
 - How many credits are you taking at UW-L during Fall 2013?

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Ordinal Scales

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- **Ordinal scales:** Responses to a question that have a natural order/ranking.
- Common attitude scales:
 - Strongly agree, Agree, Disagree, Strongly disagree.
 - Very satisfied, somewhat satisfied, somewhat dissatisfied, very dissatisfied.
- Common quality scale:
 - Excellent, Very Good, Fair, Poor
- Avoid ambiguous frequency scales:
 - Always, Often, Occasionally, Rarely, Never

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Using Ordinal Scales

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- Use words, not meaningless numbers (1-10 scales).

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Phrasing questions

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- Avoid **leading questions**: questions that lead the respondent to a particular conclusion.
- Avoid **loaded questions**: questions that suggest a socially desirable answer, or questions or answers that are emotionally charged.
- Examples:
 - Should foreign-born terrorists caught and held in United States detainment facilities be given the same legal rights as U.S. citizens?
 - Do you believe it is acceptable for the United States to detain potentially innocent battlefield detainees without legal representation and interrogate them by means that violate the Geneva Convention against torture?
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Avoid Ambiguity

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- How often do you read your local newspaper or popular national newspapers such as the *Wall Street Journal* or the *New York Times*?
 - Frequently □ Occasionally □ Hardly Ever □ Never
 - Where is the line between frequently and occasionally?
 - Does the *New York Post* count as a “popular national newspaper?”
- How many car repairs did you do in the last year?
 - Do yourself or take to a mechanic?
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Explicit and Implicit Assumptions

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- Avoid questions that make assumptions:
 - Should General Electric continue to pay its stockholders its outstanding quarterly dividends? Yes/No
 - The researcher made an assumption for the respondent, that the respondent might not necessarily believe.
- Avoid questions that assume the respondents have thought about an issue, or have knowledge of an issue:
 - Should Cartwright Center change its name? Yes / No
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- Sometimes the ordering of alternatives can influence which outcome people pick:
 - Which mayoral candidate are you most likely going to vote for?
☐Tim Kabat, ☐Douglas Farmer
- Often times the ordering of questions can influence the response to the questions that follow:
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Sequencing Strategies

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- **Funnel technique:** strategy of asking general questions before specific questions in order to limit question-sequence bias.
- Avoid bias by giving multiple alternative questionnaires that differ on order.
- **Filter question:** To eliminate bias caused by lack of knowledge or prior opinion, first ask questions that reveal the respondent's background on the topic, then proceed only if there is sufficient background.
 - Do you plan to vote in the upcoming Democratic primary election for the Wisconsin 95th Assembly seat?
 - Are you aware of existing arguments for and/or against changing the name of Cartwright Center?

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