Introduction

- Learning Objectives:
  - Participants will be able to identify when surveying is appropriate or inappropriate.
  - Participants will be able to identify the steps of good survey design.
  - Participants will be able to write and evaluate reliable and valid survey items with good response formats.
  - Participants will be able to describe the benefits of collecting data in an electronic format.
  - Participants will be able to write and evaluate effective cover letters.
  - Participants will be able to design a survey with consideration of basic data analysis principles.
Introduction

- Most surveys are designed for a specific project
- Goal of survey design is to maximize response rate
- Survey items come from project mission and goals AND research questions
- Survey design developed along with sampling methods to facilitate collecting minimal but sufficient data to generalize from sample to population
- Many of the following recommendations apply to designing all instruments including interviews

Tasks for Survey Design

1. Develop goals and research questions
2. Choose data collection method – *Is surveying the best method?*
3. Outline topics and draft items
4. Choose response formats
5. Write and edit items
6. Determine sequence of items
7. Determine physical characteristics of the survey
8. Review and revise the survey
9. Pilot test and revise the survey
10. Administer the survey
11. Analyze the data and report the results
Task #1
Develop Goals and Research Questions

Develop Goals and Research Questions

- What are the goals of the study?
- What are the research questions, that is what specifically do you want to know as a result of the study?
- What management decisions will be made based on the data?
- Surveys can only be evaluated and validated against the goals and research questions.
- Seek consultation from:
  - Literature
  - Colleagues in other organizations who may have done surveys
  - Colleagues within your organization who have a vested interest in the results
  - Supervisors who have a vested interest and the power to make it happen
Survey Objectives

1. To identify student characteristics associated with leaving the institution prior to graduation
2. To identify institutional characteristics associated with leaving the institution prior to graduation.
3. To identify what the institution could do to reduce the current attrition rate.

Research Questions

1. What are the student demographic characteristics associated with attrition from the institution prior to graduation?
2. What are the cognitive and noncognitive student characteristics associated with student attrition?
3. What aspects of the institutional environment do students indicate contribute to their decision to leave the institution?
4. How do students rate current retention services / programs and what additional services / programs do students perceive would help them to stay at the institution until graduation?
Task #2
Choose Data Collection Method

Choose Data Collection Method

• Is surveying the most appropriate method to answer your research questions?
• Would interviews or focus groups be better?
• If surveying is the best method, will it be a mailed survey, telephone survey, e-mail survey, or Web-based survey?
Task #3
Outline Topics and Draft Items

- What topics need to be covered to answer the research questions?
- What items will fully address these topics?
- Do not include topics or items that are merely “interesting to know”
- Draft reliable and valid items
- Six types of items (Patton, 1990, pp. 290-291):
  - Experience / Behavior Questions
  - Opinion / Values Questions
  - Feeling Questions
  - Knowledge Questions
  - Sensory Questions
  - Background / Demographic Questions
Outline Topics and Draft Items

• Draft reliable items
  – Will respondents interpret the item in the same way on another day?
  – Will the item be interpreted in the same way by all respondents?
  – Will the item be interpreted by the respondents in the way you have intended?

• Draft valid items
  – Will the item elicit the information you want?
  – Will the item elicit accurate and relevant data?
  – When you know the answers to these items will you know the answers to your research questions?

Draft Reliable and Valid Items

• Work in small groups to draft questions for a retention survey to answer the research questions previously developed
• No need to think about response formats yet
• Use tips for drafting reliable and valid items on the following 3 slides
Outline Topics and Draft Items

• Tips for drafting reliable and valid items
  – No double-barreled items -- address only one issue
  – Break-up complex items into series of shorter, simpler items
  – Use skip patterns when items do not apply to all respondents
  – Make sure that the respondents will have the knowledge necessary to answer the item
  – Make items easy to answer so they do not require a lot of thought or interpretation

Outline Topics and Draft Items

• Tips for drafting reliable and valid items
  – When writing threatening or embarrassing items:
    • Mix in with other more innocuous items
    • Give a range when asking age or income, etc.
    • Is the survey confidential or anonymous?
    • Write the item objectively; not suggesting a particular response
    • Ask respondent how others might respond
Task #4
Choose Response Formats

Choose Response Formats

- Will the responses be open-ended or closed?
- How will the data be loaded into the computer?
- How will the data be analyzed?
Choose Response Formats

• Open-ended response formats:
  – Allow respondents to express their own views in their own ways
  – Are appropriate when there are too many possible answers to list
  – Are more appropriate for interviews and focus groups
  – Can be used to help determine closed responses
  – Yield data that may be more difficult to analyze
  – Responses may not be as precise or clear
  – Responses may be illegible
• Good to offer at least one open-ended item in a survey with closed items

Choose Response Formats

• Closed Question Formats:
  – Two Types
    • Dichotomous (T / F; Y / N)
    • Multichotomous (multiple choice, ranking, rating, Likert type scales)
  – Respondents provide more reliable (consistent) answers
  – Researchers can interpret the answers more reliably
  – Respondents fit themselves into a relatively small number of categories
  – Facilitates ordinal or interval data so that items can be added together to form scales
  – Lose richness of data
  – May offer the wrong responses or the response formats may not fit the item
Add Response Formats to Previously Drafted Questions

- Work in small groups to add formats to the questions you drafted
- Refer to the tips for designing closed question formats on the following 4 slides
- You may have to edit some of your questions to match your response formats

Choose Response Formats

- Closed Question Formats:
  - Tips for designing closed question formats:
    - Use 3-5 categories on a rating scale (SA --- SD)
    - Write mutually exclusive response options
    - Supply enough categories for every conceivable response
    - Use “don’t know” when some respondents will not know
    - Balance scales between positive and negative responses
    - Label midpoint accurately (neutral; neither agree not disagree) or do not use midpoint (forced choice)
    - Arrange responses vertically
    - Repeat response formats at the top of each page
    - Do not change response formats too frequently but do change occasionally
Choose Response Formats

• Closed Question Formats:
  – Tips for designing closed question formats:
    • Specify how respondents should answer fill-in-the-blank items (e.g., “What is your age?” ___ years)
    • Items for rating scales must be stated positively or negatively
    • Items for rating scales must avoid asking two questions that may have different ratings
    • Should respondents choose one response or all that apply?
    • Use SA / A / D / SD rather than 1 / 2 / 3 / 4
  – Tips may be modified depending on whether the survey is administered as a paper and pencil survey, or uses scan sheets, Bubble Publishing, or Inquisite