Research Methods

Survey Research

What We Will Cover in This Section

- Overview
- Samples
- Interviews
- Questionnaires
- Summary

What Do You Think of These Questions?

Do you support President Bush's initiatives to promote the safety and security of all Americans?	Yes	No	Undecided
Do you support reforms proposed by the Bush Administration to improve curriculum, invest more in training teachers and create safer schools for our children?	Yes	No	Undecided
Do you support the use of air strikes against any country that offers safe harbor or aid to individuals committed to attacks on America?	Yes	No	Undecided

Survey: Definition

Research in which the participant is asked to respond to <u>structured or unstructured</u> <u>oral and/or written questions</u>.

Key Concepts #1

- Surveys should be considered to be in the same category as a test.
  - Each question represents a test item.
  - Administering should be standardized.
  - The researcher has to consider reliability issues.
  - The researcher has to consider validity issues.
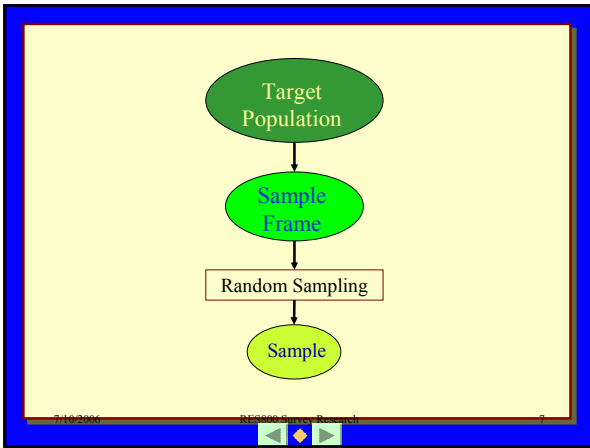
Key Concepts #2

- Population
  - *All members of a group that are alike on at least one characteristic.*
    - Infinite in size.
    - Exist now, in the past, and in the future.
- Sample Frame
  - *A subset of the population to which you have access from which you will select subjects for a study.*
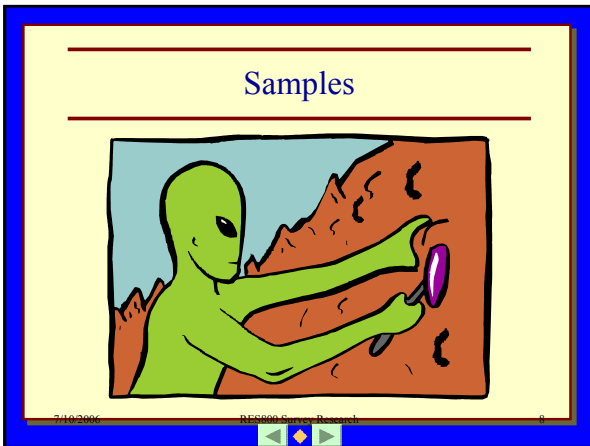- Sample.
  - *The people from whom you collect data.*

Slide 1

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        ┌──────────────┐
        │   Target     │
        │  Population  │
        └──────┬───────┘
               │
               ▼
        ┌──────────────┐
        │   Sample     │
        │   Frame      │
        └──────┬───────┘
               │
               ▼
      ┌──────────────────┐
      │ Random Sampling  │
      └────────┬─────────┘
               │
               ▼
          ┌─────────┐
          │ Sample  │
          └─────────┘
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Slide 2

Samples

Slide 3

Basic Types

- Probability samples.
  - Random samples.
  - Stratified Random Samples.
  - Cluster Samples.
- Non-probability samples.
  - Haphazard Samples.
  - Quota Samples.

Random Sample

A sampling technique in which every member of the population [sample frame] has an equal chance of being chosen.

Stratified Random Sample

A random sample in which two or more subsamples are represented according to some predetermined proportion.
– Typically the same proportion as is found in the population.

Cluster Sample

A group selected for random sampling using groupings from a larger population.

Pennsylvania
Harrisburg

Key Learning Point

With a random sample you can generalize to the population from which the sample was taken.

Haphazard Sample

- A non-probability sample that is chosen for practical reasons.
  - A convenience sample.

Quota Sample

- A non-probability sampling technique in which predetermined groups of the population are chosen.
  - Not selected at random.

Key Question

What are the problems of using a non-probability sample?

Bottom Line

Effective surveys depend on asking the right questions right to the right people.

Interviews

A conversation with a purpose.

Unstructured Interview

Questions are unplanned. The interviewer can ask questions at his/her discretion.

- Benefits
  - Cover a wide range of issues.
  - Flexibility.
- Issues
  - Reliability
  - Validity

Structured Interview

Questions are pre-planned in advance to elicit responses in a specific area.

- Benefits.
  - Consistency.
  - Even coverage.
  - Content validity.
- Issues.
  - Limits coverage.

Questionnaire and Interview Design

Step 1. Determine the purpose

- What did the researcher set out to find (research hypothesis or question)?

  This has an impact on…
  - Sample.
  - Content.

Step 2. Target Population

- To whom does the person want to generalize the results?
  - What was the target population?
  - What was the sample frame?
  - What was the sample?

Step 3. Review the question format.

- Open ended questions.

- Closed ended questions.

Open-ended Questions

Questions where the respondent is free to answer in his/her own words.

What do you do when someone cuts you off in traffic?

Open-ended Questions

- Benefits.
  - Complete answers.
  - Person's reasons.
  - Find unanticipated ideas and responses.
- Issues.
  - Coding.

Closed-ended Questions

Questions where the respondents are limited to a fixed set of alternatives in their answers.

How often do you scream at drivers who cut you off in traffic?

- A.   *Daily.*
- B.   *Weekly*
- C.   *Monthly*
- D.   *Never*

Closed-Ended Questions

- Benefits.
  - Easy to code.
  - Rater reliability.
- Issues.
  - Limits responses.
  - Some alternatives may not apply.

Problem Questions

- Double-barreled questions.
  I believe that this is one of the best courses I have taken and that it is too hard.
- Loaded questions.
  I believe that people should be nice to babies.
- Negative questions.
  I don't believe that it is important to not do your homework.

Questionnaire Items from Common Cause

George W. Bush received fewer votes than AL Gore; he won the presidency because small states have more electoral votes per capita than large states. Do you think this arrangement should be changed?	Yes	No	Don't Know
The President is officially elected by the Electoral College, whose members are unknown to most voters, and who could ignore the wishes of the voters. Should we abolish the Electoral College?	Yes	No	Undecided

Step 4. Question Construction

- Characteristics of a good item.
    - Single issue.
    - Simple wording.
    - Can the respondent answer this?
    - Is it relevant to the survey purpose?
    - Is the question neutral (leading or loaded)?
    - Are there issues of social desirability inherent in the question?
- Number of items.

Step 5. Review the Response Scale(s)

- Keys to good response scales.
    - Relevant to the question.
    - Mutually exclusive.
      Categories defined so that membership in one rules out membership in another.
    - Mutually exhaustive.
      Categories are defined so that all possible answers fall into one of them.

Good **BAD** Examples

1. How well do you like chocolate?
    a. Yes
    b. No
2. How old are you?
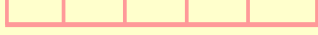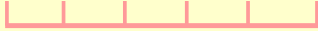   a. 0 – 15
    b. 15 – 20
    c. 22 – 30
    d. 33 – 50

Semantic Differential

Witty							Serious
Dull							Alert
Stingy							Generous

Typical Graphic Rating Scale

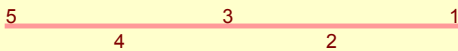| I hate to lose a contest.	Yes ? No
It is harder for me to adapt to	a. Routine b. Constant change.
Which word in each pair appeals to you more?	a. Forgive b. Tolerate
I criticize poor work in my work unit	a. Always b. Often c. Occasionally d. Seldom e. Never

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Behaviorally Anchored Scale

Sartorial Splendor

5   4   3   2   1

Bathes regularly, shaves, wears bow ties and clean shirts.   **Bathes often, wears no tie, clean shirts, sneakers.**   **Bathes occasionally, wears no tie, sweats, shower shoes, has a beard.**

Step 6. How was the survey administered?

- Interview?
  - Face to face?
  - Group?
  - Telephone?
- Questionnaire
  - Controlled group?
  - Pencil & paper vs. computer?

Step 7. How Delivered?

- How was the survey delivered?

- How was the survey recovered?

Step 8. How Was the Survey Evaluated?

- Were the responses be content analyzed?
- Were the responses be statistically analyzed?

Errors and Response Biases

Interviewing Errors

- Confirmation Bias

  An error in which the interviewer unconsciously seeks to gather information to support an established opinion or point of view.

Halo Error

Tendency of a rater to let one positive or negative characteristic of an individual to affect an overall evaluation.

Social Desirability

A characteristic of certain items or responses that causes people to choose that response even if it does not represent their true tendency or opinion.

Do you think that it is OK to hit your spouse?

Acquiescence Response Set

Tendency of respondents to either systematically agree or disagree with items on a scale.

Can be influenced by the way a question is worded.

The problems at the University are caused more by students than the faculty.

The problems at the University are caused more by the faculty than the students.

Extreme Response Bias

Tendency of respondents to endorse extreme responses.