Survey Research

What is a survey?

- Any measurement procedure that involves asking questions of respondents.
  - Can be anything from a short paper-and-pencil feedback form to an intensive one-on-one, in-depth interview

Types of survey…

- Questionnaire
  - Mail
  - Group-administered
  - Drop-off or Street
- Interview
  - Personal
  - Telephone

Selecting the method

- Population Issues
  - Accessibility
  - Literacy
  - Language
  - Cooperation
  - Geography

Selecting the method

- Sampling Issues
  - What information do you have on your sample?
  - Can you find the respondents?
  - Who are your respondents?
  - Can the entire population be sampled?
  - Will response rate be a problem?

Selecting the method

- Question Issues
  - What types of questions
    - personal/detailed/closed- or open-ended
  - How complex? (branched or not)
  - Screening?
  - Can sequence be controlled…or is it exploratory?
  - Length?
  - # options on closed-ended?

Selecting the method

- Content Issues
  - Can respondents know about the issue?
  - Will they manage easily this knowledge, or must they consult records?

Selecting the method

- Bias Issues
  - Social desirability?
  - Interviewer distortion/subversion?
  - False respondents?

Selecting the method

- Administrative Issues
  - Cost
  - Facilities
  - Time
  - Personnel

Constructing the survey

- Types of questions
  - Dichotomous response formats

Do you believe that the death penalty is ever justified?

___Yes

___No

Please enter your gender:

☐ Male ☐ Female

Constructing the survey

- Types of questions
  - Formats following particular measurement scales

Nominal

Occupational Class:
1 = truck driver
2 = lawyer
3 = etc.

Ordinal

Rank the candidates in order of preference from best to worst...
___Bob Dole
___Bill Clinton
___Newt Gingrich
___Al Gore

Constructing the survey

- Types of questions
  - Formats following particular measurement scales

Interval (Likert Scaling)

The death penalty is justifiable under some circumstances.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Constructing the survey

- Types of questions
  - Formats following particular measurement scales

Interval (semantic differential)

Please state your opinions on national health insurance on the scale below

	very much	some-what	neither	some-what	very much	
interesting	☐	☐	☐	☐	☐	boring
simple	☐	☐	☐	☐	☐	complex
uncaring	☐	☐	☐	☐	☐	caring
useful	☐	☐	☐	☐	☐	useless

Constructing the survey

- Types of questions
  - Formats following particular measurement scales

Interval (cumulative or Guttman scaling)

Please check each statement that you agree with:

___Are you willing to permit immigrants to live in your country?

___Are you willing to permit immigrants to live in your community?

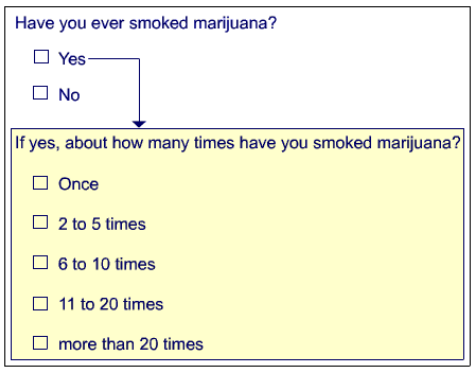
___Are you willing to permit immigrants to live in your neighborhood?

___Would you be willing to have an immigrant live next door to you?

___Would you let your child marry an immigrant?

Constructing the survey

- Types of questions
  - Filter or contingency



Constructing the survey

- Question Content
  - Necessary?
  - Is one question enough?
    - "What do you think of time required for study and exercitation at home?"
  - Do respondents have the information?
  - Is it specific enough?

Google exercitation

- Try to build up some items on *Google forms* or *Google consumersurveys* on whatever you want topic
- Send an invitation to your class mates for answering

Constructing the survey

- Question Content
  - Is it general enough?
  - Is it biased/loaded?
  - Can you be sure of truthfulness?

Constructing the survey

- Response Format
  - Structured response formats
    - Fill in the blank

Please enter your gender:
_____Male
_____Female

Please enter your preference for the following candidates where '1' = your first choice, '2' = your second choice, and so on.

_____ Robert Dole
_____ Colin Powell
_____ Bill Clinton
_____ Al Gore

Name: _____

One of President Lincoln's most famous speeches, the _____ Address, only lasted a few minutes when delivered.

Constructing the survey

- Response Format
  - Structured response formats
    - Check the answer

Please check if you have the following item on the computer you use most:
☐ modem
☐ printer
☐ CD-ROM drive
☐ joystick
☐ scanner

Constructing the survey

- Response Format
  - Structured response formats
    - Circle the answer

Capital punishment is the best way to deal with convicted murderers.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Or, with a computer…

Capital punishment is the best way to deal with convicted murderers.

○	○	○	○	○
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Constructing the survey

- Response Format
  - Unstructured response formats

Please add any other comments:

Constructing the survey

- Question Wording
  - Can it be misunderstood?
  - What assumptions does it make?
  - Is the time frame specified?
  - How personal is it?
  - Is it too direct?
  - Other
    - Terminology clear; alternatives explicit; inoffensive; not loaded

Constructing the survey

- Question Placement
  - Answers may be influenced by prior questions
  - Question may come too early or too late to arouse interest
  - May not receive sufficient attention

Constructing the survey

- Question Placement
  - Opening Questions
    - Set the tone
    - Easy to answer
    - NOT threatening
  - Sensitive Questions
    - Transition sentence
    - After easy opening

Constructing the survey

- Question Placement
  - Checklist:
    - Start with easy, non-threatening questions.
    - Put more difficult, threatening questions near the end.
    - Never start a mail survey with an open-ended question.
    - For historical demographics, follow chronological order.
    - Ask about one topic at a time.
    - When switching topics, use a transition.
    - Reduce response set (the tendency of respondent to just keep checking the same response).
    - For filter or contingency questions, make a flowchart.

Golden rule

- Do unto others…
  - Thank the respondent at the beginning for allowing you to conduct your study.
  - Keep your survey as short as possible-only include what is absolutely necessary.
  - Be sensitive to the needs of the respondent.
  - Be alert for any sign that the respondent is uncomfortable.
  - Thank the respondent at the end for participating.
  - Assure the respondent that you will send a copy of the final results

Interviews

- See
  - http://trochim.human.cornell.edu/kb/intrview.htm
    - It's very readable and an excellent overall guide
    - The emphasis is on professionalism and preparedness…here, it makes a big difference

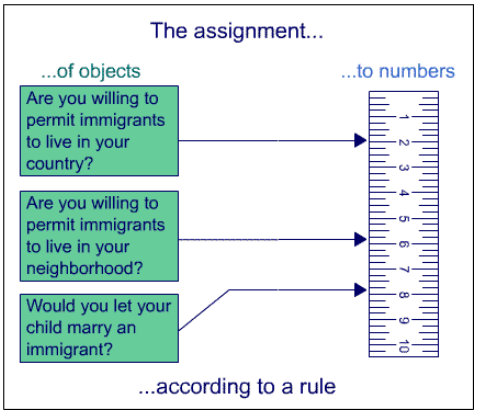
Advantages/disadvantages…

http://trochim.human.cornell.edu/kb/survaddi.htm

Issue	Questionnaire			Interview	
	Group	Mail	Drop-off	Personal	Phone
Are visual presentations possible?	Yes	Yes	Yes	Yes	No
Are long response categories possible?	Yes	Yes	Yes	???	No
Is privacy a feature?	No	Yes	No	Yes	???
Is the method flexible?	No	No	No	Yes	Yes
Are open-ended questions feasible?	No	No	No	Yes	Yes
Are reading and writing needed?	???	Yes	Yes	No	No
Can you judge quality of response?	Yes	No	???	Yes	???
Are high response rates likely?	Yes	No	Yes	Yes	No
Can you explain study in person?	Yes	No	Yes	Yes	???
Is it low cost?	Yes	Yes	No	No	No
Are staff and facilities needs low?	Yes	Yes	No	No	No
Does it give access to dispersed samples?	No	Yes	No	No	No
Does respondent have time to form answers?	No	Yes	Yes	No	No
Is there personal contact?	Yes	No	Yes	Yes	No
Is a long survey feasible?	No	No	No	Yes	No
Is there quick turnaround?	No	Yes	No	No	Yes

Scaling

- Measuring/Analyzing Surveys

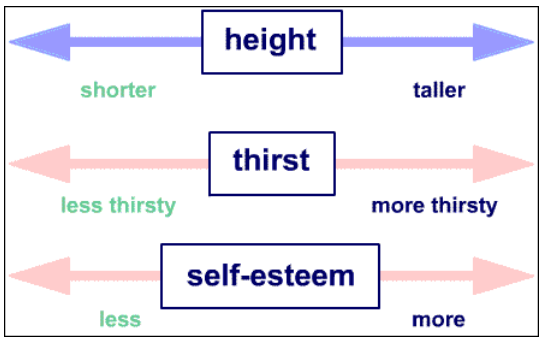


Scaling

- There's more to scaling than just assigning numbers willy-nilly
  - Allocation of questions to concepts
  - Estimate of how well questions attach to each other

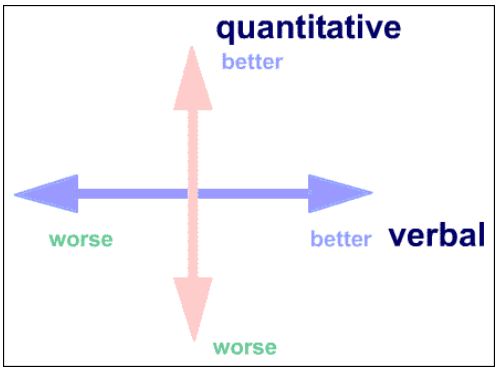
Scaling

- Dimensionality
  - One-dimensional



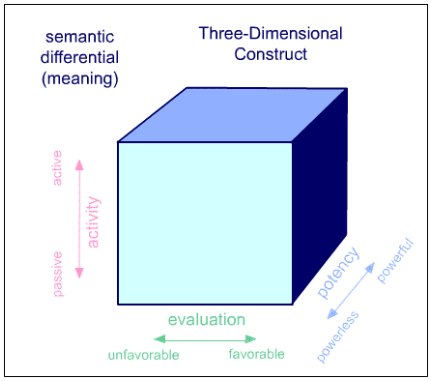
Scaling

- Dimensionality
  - 2-dimensional



Scaling

- Dimensionality
  - 3-dimensional



Scaling

- Dimensionality
  - Ideally, the one you choose should be determined by the reality of the variable you are assessing

Scaling

- One – Dimensional Scale Types
  - Thurstone
    - Start with focus of project (what's the concept?)
    - Develop items that load on the scale
    - Rank the items on the scale
    - Compute the scale score for each item
    - Choose representative items from across the scale
    - Insert into survey form

Scaling

- One – Dimensional Scale Types
  - Thurstone
    - See
      http://trochim.human.cornell.edu/kb/scalthur.htm
  - Likert & Guttman methods…
    - Just as easy (they really are…just a bit time consuming)…and equally essential to having a well constructed survey

Before doing the survey…

- Do you have a clear hypothesis?
- Do your questions focus on that hypothesis?
- Will participants provide accurate answers?
  - People don't know the causes of their own behavior
  - People's memories are inaccurate
  - People are not good at predicting their future behavior
  - People might not tell you what they know…
    - Social desirability bias
    - Demand characteristics
    - Response sets

Advantages/Disadvantages Again…

- Pro: Easy way to get a lot of information
- Con: However, that information:
  - May lack conclusion validity because of capitalization on type I error
  - Will not have internal validity
  - May lack construct validity because of self-report problems; poorly constructed scales
  - May not have external validity because of poor sampling or because of non-response bias
  - May not even answer research question because survey questions weren't focused on hypotheses

Concluding Remarks

- Survey research is the most used research method
- Survey research is the most misused research method
- Learn how to use rather than abuse survey research