# Designing Surveys and Survey Implementation

# Loyola Brown Bag Series on Research and Assessment

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# Agenda

What is a Survey

Writing Good Questions

Structuring Surveys

Implementing Surveys

## What is a Survey?

 A standardized set of questions asked of a group of people

Questionnaires (written) or Interviews (oral)

# Writing Good Questions

Define objectives

 Make sure that all respondents have a shared understanding of the meaning of the question

## Define Objectives

 Need to know both what you want to measure and why

 Need to know how the information will be used/analyzed

## What and Why: Making The Data

 The way a question and response options are worded effects the distribution of responses that we get

 In many cases we don't know the extent to which our data is noisy but know in which <u>direction</u> it is noisy

# How The Information Will Be Used: Types of Data

#### Nominal

• ex: Gender

#### Ordinal

• ex: Rank the following activities in order of usefulness from most to least

#### Interval

• ex: Rate your satisfaction with the following experiences at Loyola on a scale of 1 to 5 . . .

#### Ratio

ex: on average how many hours a day do you study?

# If You Want To Say. . .: Types of Data

- 60% of undergraduates are women. Nominal
- Students indicate that internships are the number one most useful activity in helping them apply what they have learned. – Ordinal
- On a scale of 1 to 5, students rate their overall satisfaction with Loyola a 3.78. – Interval
- Students study for an average of 22 hours a week.
  - Ratio

#### On a Scale of One to Five . . .

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

#### On a Scale of Zero to Ten

0 1 2 3 4 5 6 7 8 9 10
Strongly
Disagree
Agree

# Types of Questions and Responses

Close-ended vs. Open-ended

Ranking vs. Rating

Forced Choice vs. Agree Scales

#### Close-ended vs. Open-ended

#### Close-ended

In which first-year academic program are you enrolled this semester? (Select only one.)

- a. Alpha
- b. Collegium and First Year Experience (FE100)
- c. First Year Experience (FE100)
- d. Honors
- e. None

#### Close-ended vs. Open-ended

#### Open-ended

In which first-year academic program are you enrolled this semester?

### Close-ended Questions

Allows to place answers on a continuum

Data is less noisy in close-ends

Analysis is easier

## Open-ended Questions

- When don't know enough about the topic/potential responses to make a response list
- When asking about sensitive info
- When ask knowledge questions
- When need a transition

### Rankings (Ordinal) vs. Ratings (Interval)

 Rank the following activities in order of usefulness from most to least

VS.

• Rate the following activities in order of usefulness from using a scale of 1 to 5 with 1 meaning . . .

## Rankings (Ordinal) vs. Ratings (Interval)

Ratings are generally better than rankings

Can't reliably rank more than 5 items

 Rankings don't provide information about where items lie in a continuum

## Forced Choice vs. Agree Scales

• Agree-disagree questions are subject to acquiescence response set (tendency of people to just "agree" with things)

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

• If possible use a forced choice item instead

### Wording Effects

#### Avoid double negatives

- "Do you favor not including athletics on lists of co-curricular programs?"
- Avoid double-barreled questions
  - "Should Loyola offer domestic partner and long-term care benefits?"

#### Response Options

- Respondents consider the whole scale (not just the words) when interpreting meaning of categories
  - "How would you rate your health?"

Good

Fair

Poor

Excellent Very Good Go

Good

Fair Po

Poor

#### No Opinion / Don't Know

- If it is there, people will use it
  - Does it make sense (can you have "no opinion?")

#### Getting Negative Information

- Invite people to say negative things by introducing it in the question
  - "What challenges, if any, have you had with . . ."
- Put negative response options first
  - · Poor, Fair, Good, Very Good, Excellent

## Shared Understanding

#### Provide definitions

• "When you drink, how many drinks do you usually have? (A "drink" is a 12-ounce beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.)"

#### Use common terms

## Shared Understanding?

"Overall, on a scale of 0 to 10 rate the success of this course in helping you 'explore how genre shapes reading and writing' as you wrote 'contemporary American essays' (e.g., literary, scholarly, & narrative essays)."

#### Structuring Surveys

Start with easy, non-threatening questions

- Never start a questionnaire with an openended question
  - Okay to do this on an interview

- Ask about one topic at a time
  - When switching topics, use a transition

# Structuring Surveys



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### Implementing Surveys

- Interview
- Paper-and-Pencil
  - In class/event
  - Mail
- Online
  - SurveyMonkey
  - Zoomerang

## Sampling

population

sampling frame

#### Population

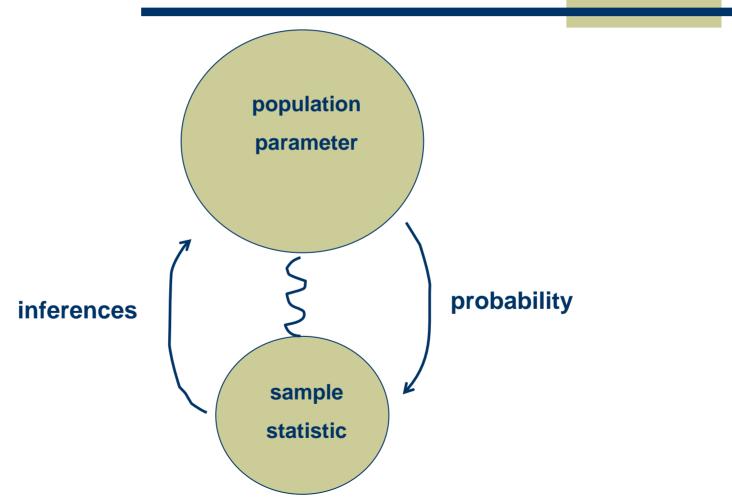
■ The group we are interested in for a particular study

#### Sampling Frame

 Enumeration of the population from which the sample is drawn

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# Sampling



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## Types of Sampling

#### Probability sampling

- Probability of any element being included in the sample is known
  - Is the basis for inferring parameters from statistics

#### Non-probability sampling

- Probability of any element being included in the sample is not known
  - Can not generalize from this data

### Methods of Sampling

- Non-probability sampling
  - Intercept sample
  - Snowball sample
  - Quota sample
- Probability sampling
  - Simple random sample
  - Stratified sample
  - Cluster sample

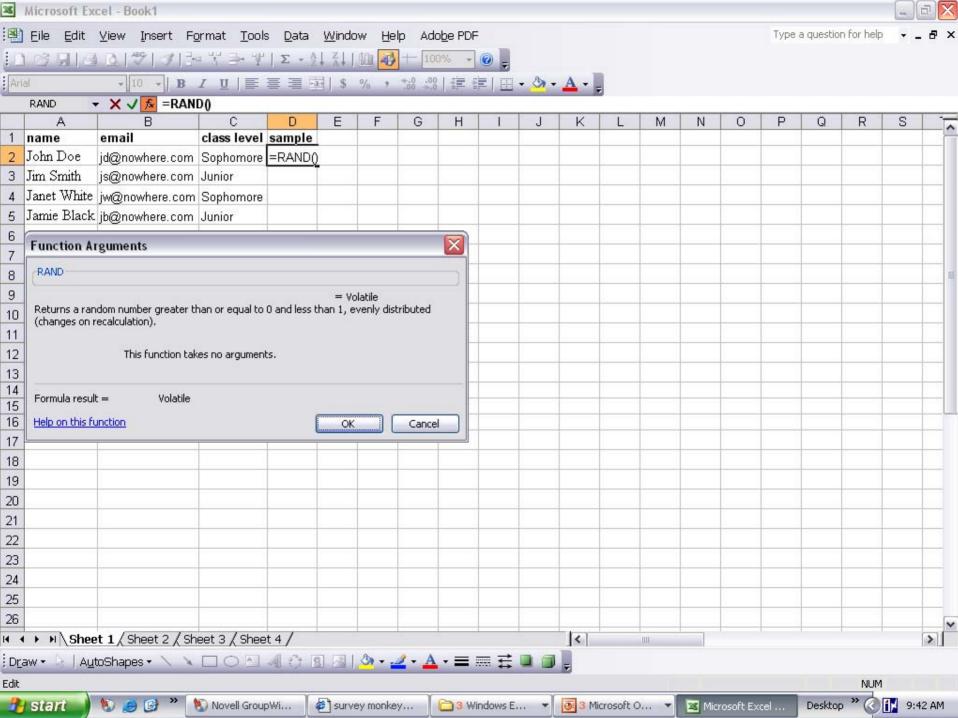
#### Intercept Sample

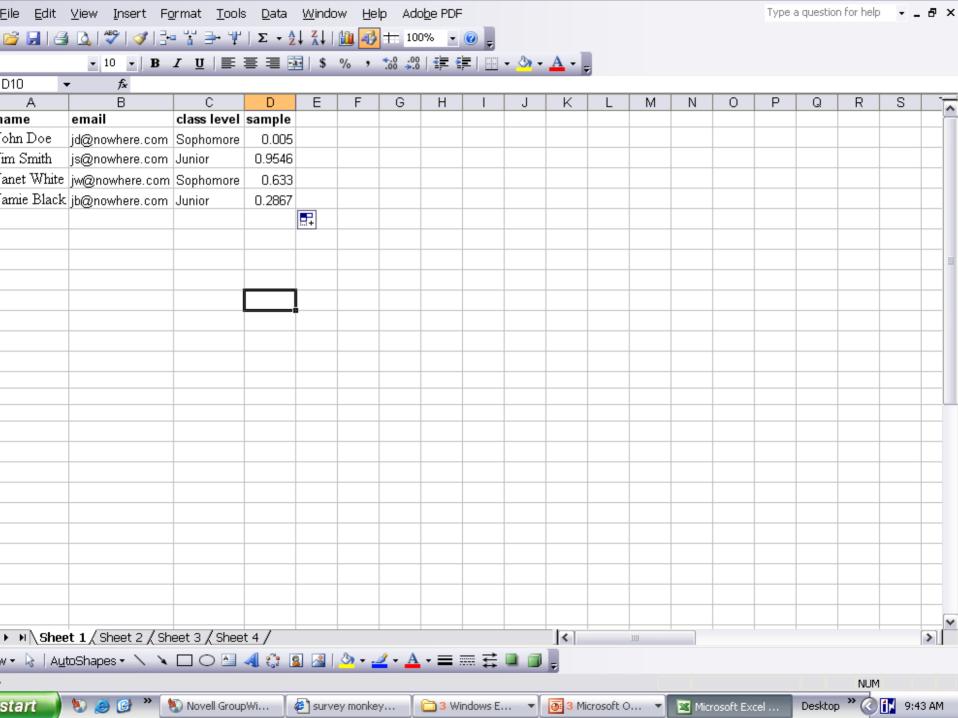
- Stopping people who are at a specific location and asking them to participate in the survey
  - Useful for site-specific studies
  - High refusal and attrition rates

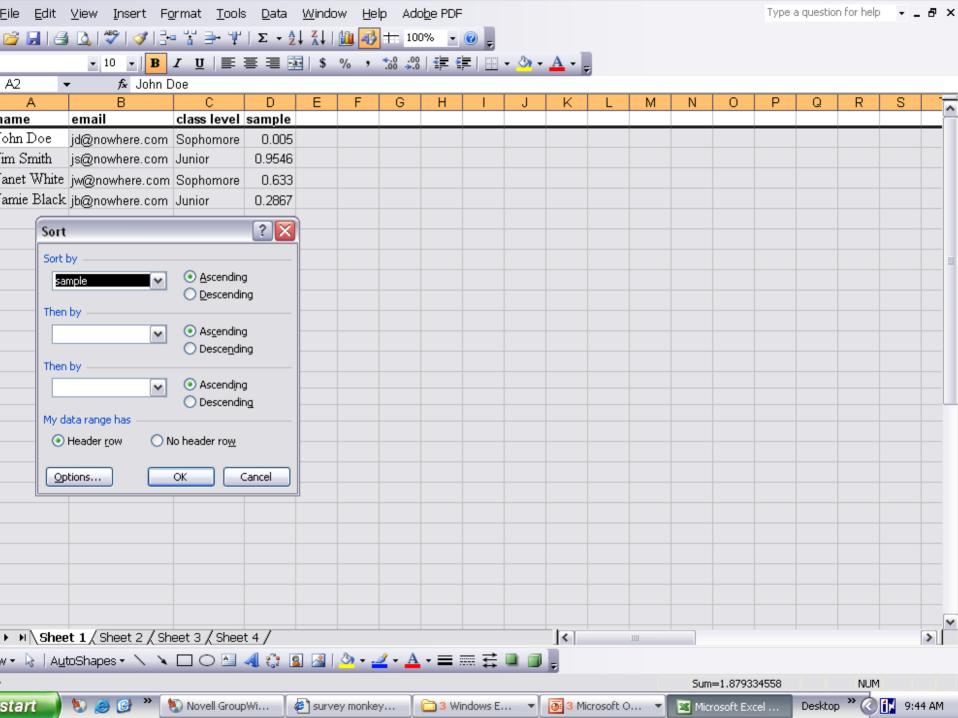
#### Simple Random Sample

• Each element in the population has an equal and known probability of being selected into the sample

- Selection of every k th person from a list is systematic sampling
  - Beware of periodicity in the list







# Number of Invites - Size of Sample

- Number of invitations to the survey >
   Number of survey respondents (N) desired
  - Some invitations will not be received
  - Some invitations will not be responded to
  - Some people will not qualify
  - Some people will not complete the survey

#### Human Subjects Review

#### Objectives:

- Assess the scientific merit of the research and its methods,
- Promote fully informed and voluntary participation by prospective subjects
- Maximize the safety of subjects once they are enrolled in the project

## Human Subjects Review

• Return of a completed survey is implied voluntary participation/consent

## Human Subjects Review

#### Most surveys are "exempt"

- B) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
  - (1) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects;

#### and

(2) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

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