

# **CONSTRUCTS AND MEASURES:**

## **Writing Survey Questions and Responses**

### **Part 2**

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# Some Broad Principles:

# ***Goal Orientation***

- Are goal oriented:
  - Surveys are designed for specific purposes
  - Questions provide data to be used in support of specific objectives
- Different questions can serve different goals

# ***Good Survey Questions***

- Measure a single thing
- Are understood consistently by all respondents

- Is the food in the Harvard dining halls nutritious and tasty?

## ***Tips for Clear Questions***

- **Use simple, familiar words**
- **Use simple syntax**
- **Avoid ambiguous terms (same interpretation for all respondents)**
- **Be specific and concrete (not general and abstract)**
- **Avoid leading or complex questions**
- **Ask about one thing at a time (avoid double-barreled questions)**
- **Avoid single or double negatives**

## ***Things Good Questions Avoid***

- **Technical Terms and Jargon**
- **Vague or Imprecise Terms**
- **Complex Sentences**
- **Double-Barreled Wording**
- **Leading or Emotional Language**

# Let's think about...

- I have thoroughly read all readings before the start of class and have understood them



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understood them

- Three things
  - Thorough
  - All vs. some
  - Understood
- Is this binary (yes/no) or more of a scale?

Avoid uncommon or confusing grammar or sentences.

- The subject of survey research is not uninteresting

# Define Things Very Specifically

How does:

“What is your income?”

Compare to:

“What was your total household income before taxes in 2018?”

## Emotional or Evocative Language

- “Do you support or oppose the death tax?.”
- “Do you believe that greedy corporations should be taxed more fairly?”

# Leading or faulty premises....

Some people say that the Iran nuclear deal is not perfect and the Iranians are building up their nuclear capability secretly, but we should not rock the boat now and just let it all slide along. Others say if Iranians are not compliant we have to call them out on it and push to renegotiate the deal with real verification.

What would be your preferred course of action?

Push to renegotiate the deal now requesting improved verification mechanisms or

Keep the current deal in place and leave the issue alone for now?

# Thinking about Language

- *Help for the poor* versus *Welfare*
- *Undocumented immigrants* versus *Illegal Aliens*

# Wording Differences

- Aid to the poor (1980s experiments)
  - 20 to 25 percent of the respondents in each year said that too little was being spent on “welfare”
  - but 63 to 65 percent said that too little was being spent on “assistance to the poor”

# GOV 1010 Experiment!



## Question Wording: Forbid or Allow?

- 1970s study on free speech (experiment)
  - 44 to 48 percent of the American public would “not allow” a communist to give a speech
  - but only about 22 percent would “forbid” him or her from doing so

# Eight Guidelines for Making Questions Clear

1. State your unit of measurement
2. Use the vocabulary of respondents
3. Use precise words and phrases
4. When using the word *you*, make sure the respondents know to whom you are referring
5. Make sure the question is really asking only one thing
6. When asking for percentages, make sure the base is clear
7. Make sure the question stem and answer choices match each other
8. Use bold, underlining, italics, and/or capitalization to highlight key phrases

# State Unit of Measurement

How frequently do you eat dinner in your own Harvard house?

- Always
- Sometimes
- Occasionally
- Never

In the past week, how many times did you eat dinner in your own Harvard house?

- Every day
- Five or six times
- Three or four times
- One or two times
- Not at all

# Use the Vocabulary of Responders

Have you ever been diagnosed with a myocardial infarction?

Have you ever been told by a doctor that you had a heart attack?

Do you know what kind of a heart attack it was?

# Use precise words and phrases

Who in your house handles your trash?

Who in your home is the one person most likely to take the trash to some outside place to be taken away?

When using the word *you*, make sure the respondents know to whom you are referring

Do you have a refrigerator in your dorm room?

Is there a refrigerator in your dorm room or suite?

# Make sure the question is only asking one thing?

Was the person you spoke to on the phone courteous and helpful?

Which best describes the person you spoke to on the phone?

# When asking for percentages, make sure the base is clear?

About what percent of your customers leave your site without making a purchase?

Of the customers who have visited your site during the past 30 days, about what percentage made a purchase on the same day?



# Make sure the question stem and answer choices match each other?

To what extent do you agree or disagree with the following statement: I like pizza!

Strongly agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Strongly disagree

Which best describes how much you like pizza?

I like pizza very much

I like pizza a little bit

I neither like nor dislike pizza

I dislike pizza a little bit

I dislike pizza very much

# Use bold, underlining, italics, and/or capitalization to highlight key phrases

Please rate how satisfied you were with the following services during your last stay at a Sheraton hotel? If you didn't use the service, please mark NA.

***Please rate how **SATISFIED** you were with the following services during your last stay at a **Sheraton hotel**?*** If you didn't use the service, please mark NA.

# Asking and Answering

# Understanding Mode

- Aural vs. Visual
  - (i.e. interviewer) vs. Visual (web; self-administered)
- Human Interaction
  - Interviewer vs. Self-administered

# Answering Questions: Response

- Social desirability
  - Tendency varies across cultures
  - Topic Sensitivity varies across cultures
- Acquiescence
  - Tendency to always say “yes”
- Use of scale extremes
  - Giving extremely high or low answers
- Use of “no opinion” options

# Response Effects

- Primacy effect
  - Respondents focusing on initial items or response choices
  - Typical in self-administered surveys
- Recency Effect
  - Respondents focusing on most recent thing they heard
  - More common in interviewer-administered surveys.

# Question Order Effects

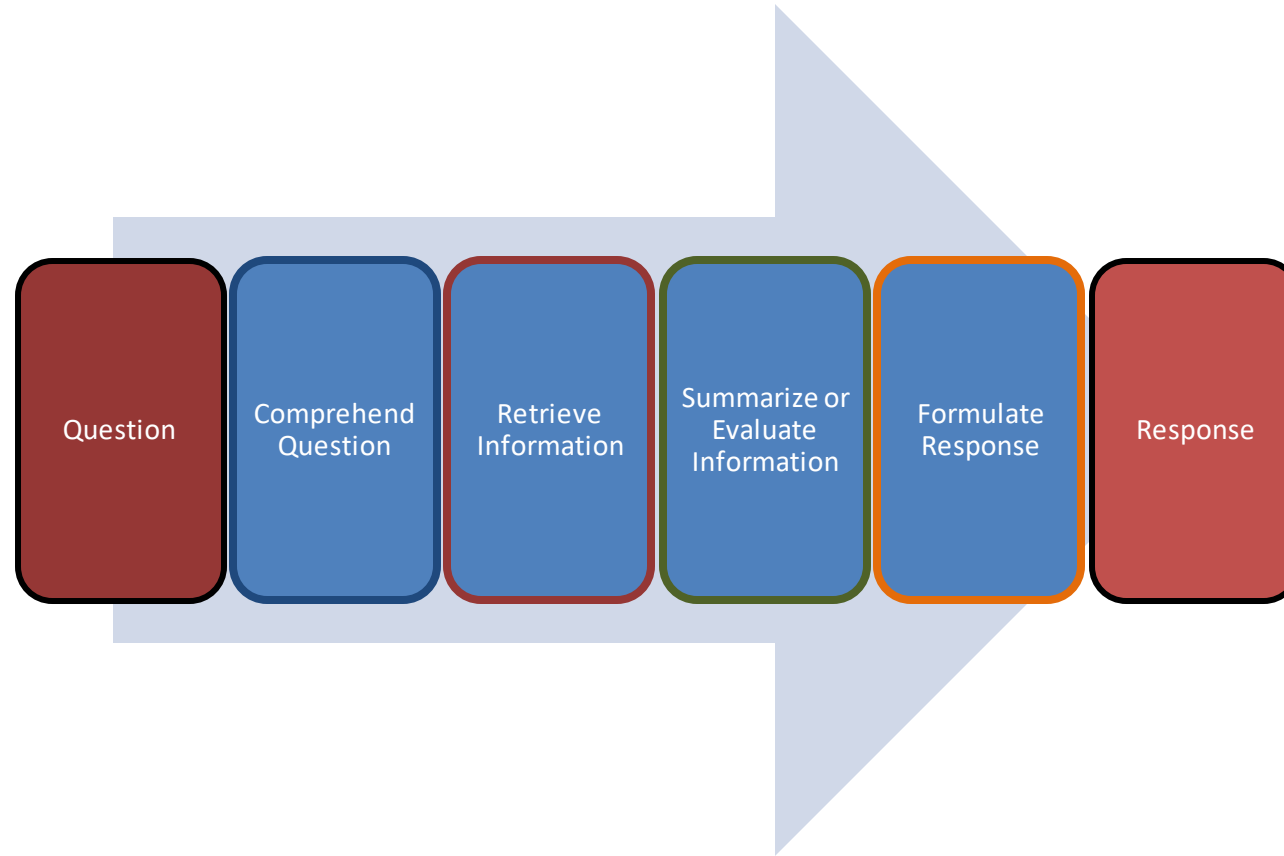
- Earlier questions can condition or prime later questions
  - Context effects
  - Contrasts effects

# Question Order (Framing)

- “Do you think the United States should let Communist newspaper reporters from other countries come in here and send back to their papers the news as they see it?”
  - 36 percent said yes.
- Same question, but preceded by a question asking whether “a Communist country like Russia should let American newspaper reporters come in and send back to America the news as they see it?”
  - 90 percent agreed that American reporters should be allowed in Russia
  - 73 percent said that communist reporters should be allowed to work in the U.S.



# What Respondents Do to Answer a Question



# Recollection of Past Events

Feature	Observation	Strategy
Time of occurrence	Things that happened long ago are more difficult to recall	Measure things that are closer
Distinctiveness	Distinctive events are easier to recall	Tailor reference period to distinctive event
Importance and Emotion	Important and emotional events are easier to recall	Use to target reference period
Proximity to Temporal Boundaries	Events near significant boundaries are easier to recall	Use personal calendars or life diaries to promote recall

# Other Strategies

- Backward recollection generally better
- Multiple strategies better than single strategies
- More time on task

# Calendriers and Diaries

- Strategy takes time
- Best approach for accurate self-reports of past events
- Construct personalized life diary
- Rich items in diary
- Place items in diary

# Examples

- Birth
- Moves
- Graduations
- Jobs
- Marriage
- Children
- Etc.

# ***General Considerations***

- Keep the Questionnaire SHORT
- Keep Questions SIMPLE
- Keep Question Order in Mind
  - Earlier Questions Can Influence Later Questions
  - Sensitive Questions Are Best at Back
- Provide Clear Instructions
- Filter and Branch

# How to Design a Questionnaire

- Analysis Plan
  - Hypotheses
  - Variables
    - Dependent
    - Independent
    - Control

# Types of Questions

- Screening
  - Establish eligibility
  - Substantive
    - Your research question, including controls
  - Methodological
    - Ensure reliability and validity of sample and measures
  - Sample
    - If unequal or differential probabilities of selection
  - Demographic
    - Variables to match or compare to available or relevant population statistics





# Response Formats

# Response Formats

- Open End
- Closed End
- Scale

# ***Open Ended Questions***

- Answered in respondent's own terms
  - Avoid pre-judgment of researcher
  - Excellent in idea generation
- But
  - Respondents don't always interpret question identically

## ***Open Ended Questions***

- Quality of information varies with amount of space provided for answer (self-administered)
- Quality of information varies with level of probing (interviewer administered)

## ***Pre-Coded Open Ended Questions***

- Questions with definite answers:
  - “What house at Harvard do you live in?”
  - “What is your major?”
- If list is long for self-administered questionnaire, burden is high
- Using interviewers to code can be complicated and lead to errors

## ***Closed Ended Questions***

- Responses are forced into pre-determined categories
- Insures respondents provide answers in consistent scale
- Response choices often aid in respondent memory
- Can be used both for factual and subjective questions

## ***Closed Ended Questions***

- Answer categories must be mutually exclusive and collectively exhaustive
- Use of “Don’t know” category needs to be considered
- Use of an “other-specify” response can assist if done well



# Closed Ended Question

What is your current student classification?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior

# Closed Ended Question with Other Category

Which best describes the device you are using to take this survey?

- ☐ A desktop computer
- ☐ A laptop computer
- ☐ A tablet computer
- ☐ A smartphone (iPhone, Android, etc.)
- ☐ Other

# Intended career field (closed-ended)

What is your intended career field:

- ☐ Business
- ☐ Government
- ☐ Science
- ☐ Academic research or teaching
- ☐ Law
- ☐ Medicine
- ☐ Consulting
- ☐ Finance
- ☐ Other

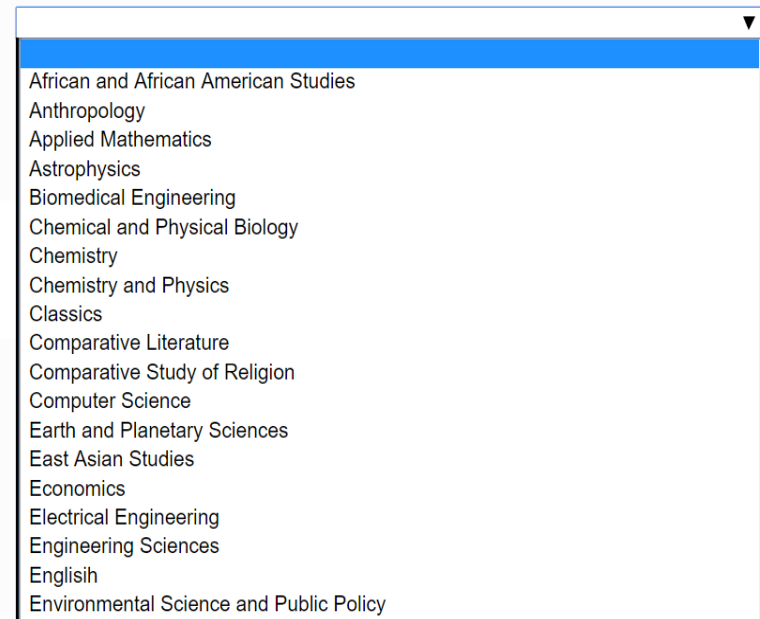
# Student Concentration

## Short Open Ended

What is your concentration or intended concentration?

## Drop Down

What is your concentration or intended concentration?



- African and African American Studies
- Anthropology
- Applied Mathematics
- Astrophysics
- Biomedical Engineering
- Chemical and Physical Biology
- Chemistry
- Chemistry and Physics
- Classics
- Comparative Literature
- Comparative Study of Religion
- Computer Science
- Earth and Planetary Sciences
- East Asian Studies
- Economics
- Electrical Engineering
- Engineering Sciences
- English
- Environmental Science and Public Policy

## ***Lists:***

- Respondents more likely to provide answers to early answer choices than late
- One option is to rework lists into items of single closed-ended questions
- If single questions, specific yes/no options help identify respondent attention

# Open-Ended vs. Multiple Choice

# *Scales*

- Used for all types of questions
- Essential for attitudes or subjective measures
- Provide consistent stimulus to respondents
- Provide tools to help process of answering

# *Scales*

- Can be used to summarize quantities (numbers, e.g. age, income, time spent on activity)
- Can be used to estimate magnitude
  - How often do you..... Frequently, occasionally



# SurveyEverywhere Poll

## ***Good Practices for Answer Scales***

- Categories are Usually Ordinal
- Categories Are Mutually Exclusive
- Categories Anticipate All Answers

# Ordinal Scales

- Each point is clearly higher or lower than the other for all people.
  - For example, don't ask "How many jobs are available in your town: Many, a lot, some, or a few. "

## ***Rating Scales***

- Five to Seven Categories Is Usually Best
- Middle Category May Improve Reliability
- Label Scale With Clear Unambiguous Words
- Agree/Disagree Scales Can be Problematic

# ***Rating Scales***

- Unipolar Categories
- Bipolar categories
- Forced choice categories
- Semantic differential

# Examples of Five Point Scales

<b>This lecture is Interesting</b>	<b>This lecture is Interesting</b>	<b>Which best describes this lecture</b>
Strongly agree	Strongly agree	Very interesting
Slightly Agree	Somewhat agree	Somewhat interesting
Neither agree nor disagree	Slightly agree	Neither interesting nor uninteresting
Slightly disagree	Don't agree very much	Somewhat uninteresting
Strongly disagree	Don't agree at all	Very uninteresting

## ***Scales for Attitudes***

- Numeric scales are usually unreliable (unless measuring a quantity)
- Numeric scales are best if anchored with words
- Respondents drawn to anchors
- Negative numbers can impact responses
- For self administered surveys, color or spacing can be used, but may lead to problems with consistency

# Attitudes about Course

Please think about this course, including both the classes so far and what you would like to get out of it, and rate how much you agree or disagree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The lectures have been interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The class discussions have been interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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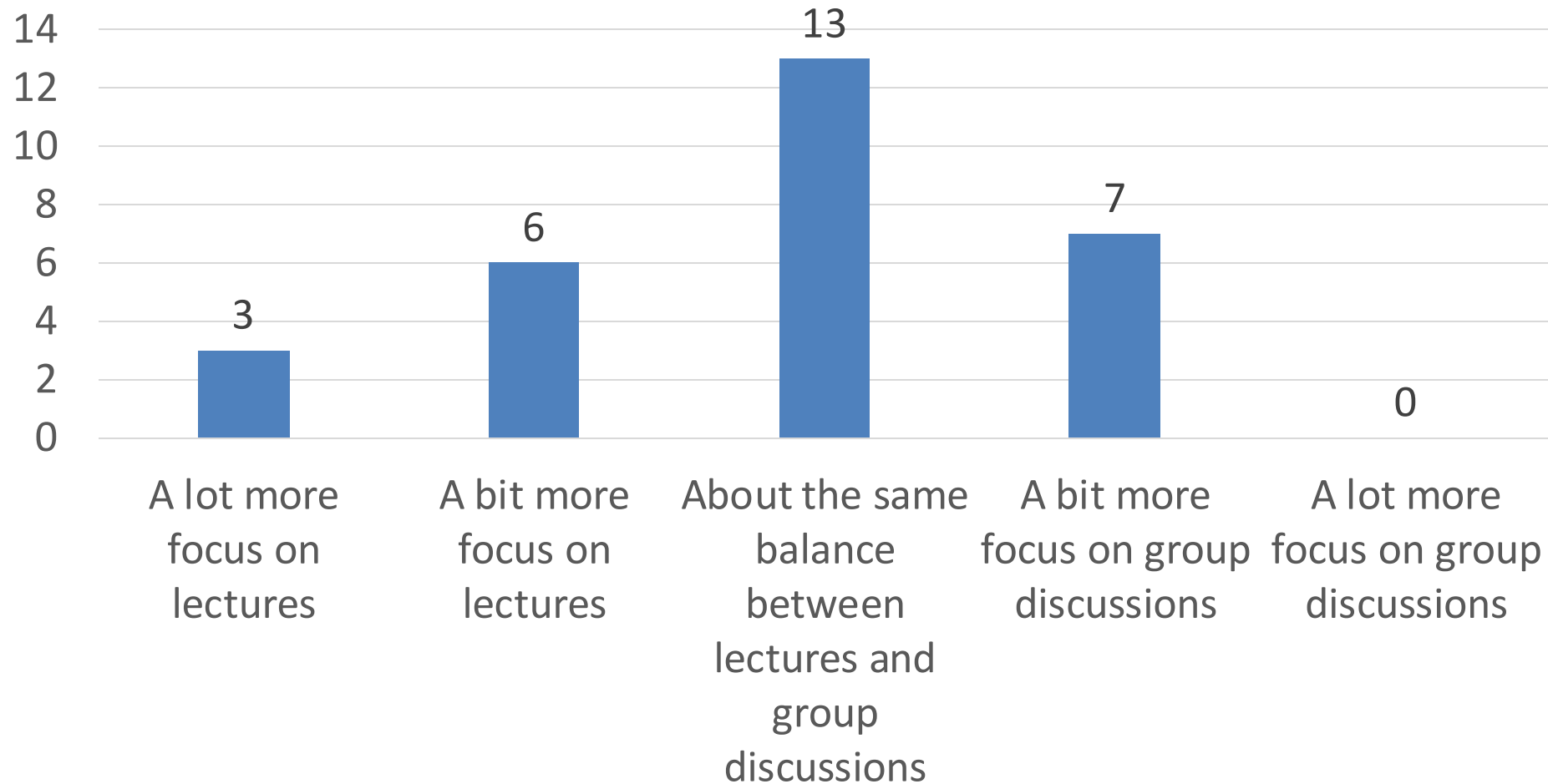


# Lecture vs Discussion Preferences

As you know, this course includes both a lecture component and discussion of group projects. Compared to the course so far, do you think future classes should have:

- ☐ A lot more focus on lectures
- ☐ A bit more focus on lectures
- ☐ About the same balance between lectures and group discussions
- ☐ A bit more focus on group discussions
- ☐ A lot more focus on group discussions

As you know, this course includes both a lecture component and discussion of group projects. Compared to the course so far, do you think future classes should have:



# Languages Surveys Use to Communicate

- Verbal
- Numeric
- Symbolic Elements

# Principals of Graphic Design

- Pragmanz: Similarity, regularity, simplicity
- Proximity:
- Similarity
- Elemental Connectedness
- Continuity
- Closure
- Common Fate

# Heuristics for Interpreting Scales

- Middle means typical or central
- Left and top means first
- Near means related
- Like (in appearance) means close (in meaning)
- Up means good

-Tourangeau, Couper, and Conrad (2004; 2007)

**Q15. Please rate how satisfied you were with each of the following facilities or services during your LAST STAY at the Friendly Inn. If you didn't use a service, please mark Did Not Use in the column on left.**

[illegible]