

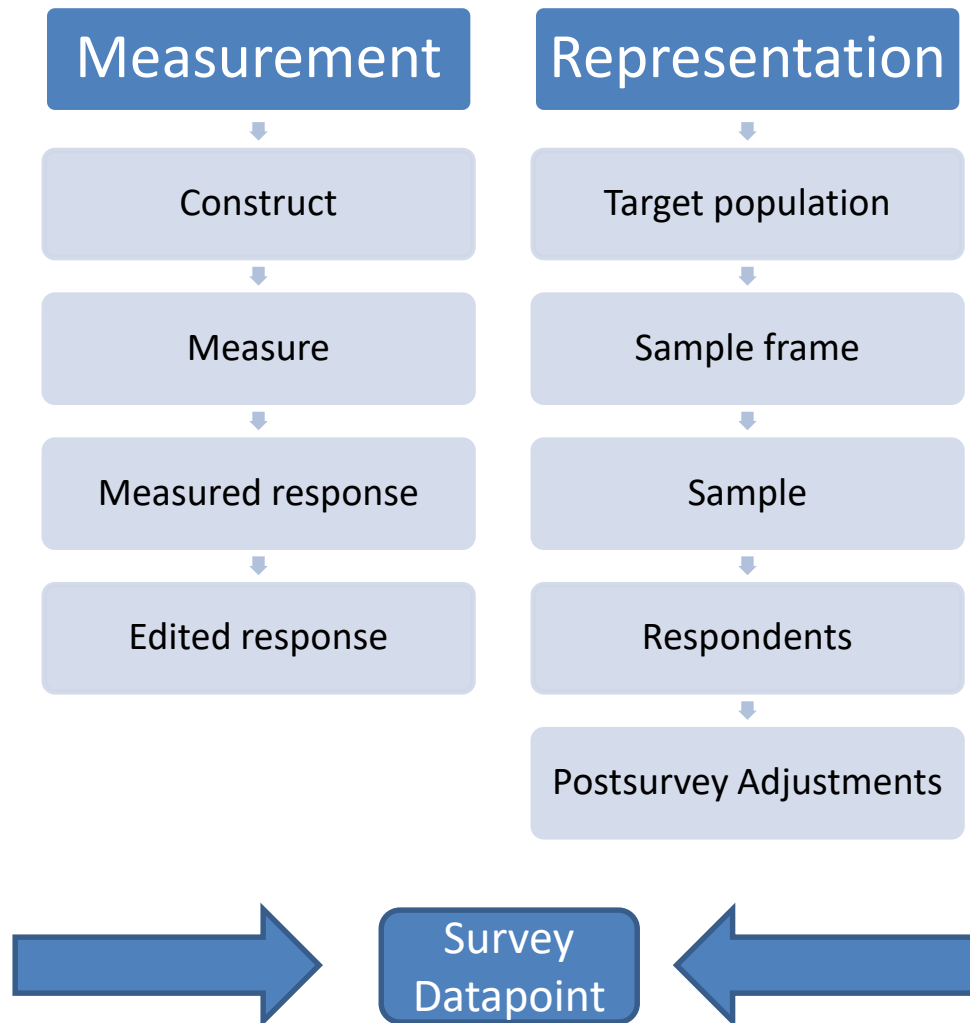
CONSTRUCTS AND MEASURES:

Writing Survey Questions and Responses

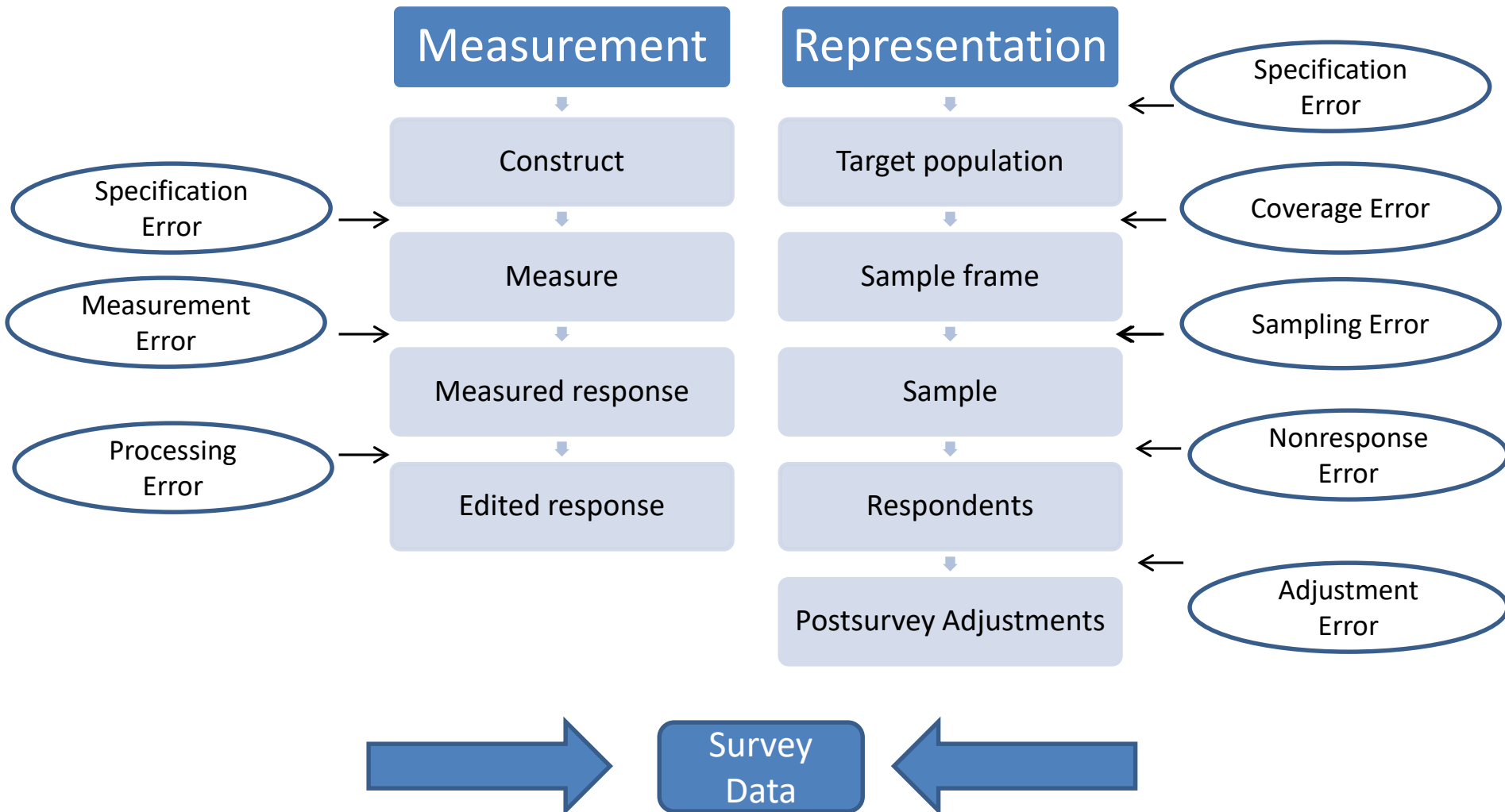
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What is survey data.....



Total Survey Error.....



Theories and Surveys

- Concepts/Constructs (Theoretical Ideas)
- Measures (Questions or Scales)
- Responses (i.e. Data)

Constructs

- Underlying attribute we want to measure
 - An element of information
 - Sometimes composed of multiple discrete elements of information
- Can end up referring to either a single survey question or a set of questions
 - Questionnaires or batteries attempt to cover all aspects of a topic or concept
 - Individual items have to consistently measure the discrete thing they are intended to measure

Conceptual Error in Questions

- We have an intended concept
- We administer survey questions

Questions

- Think of as *Instruments*
 - Can end up referring to either a single survey question or a set of questions
 - Questionnaires or batteries attempt to cover all aspects of a topic or concept

Another way of thinking about a
survey.....

I'd like to ask
you a question

Are you a Student?

SURVEY

Are you a
Statistician?

Are you a
Researcher?

How a survey methodologist thinks of a survey question....

- Respondent receives some *stimulus* during the interaction
- Respondent reacts to *stimulus*
 - *This is data*

Things Questions Measure

- Objective

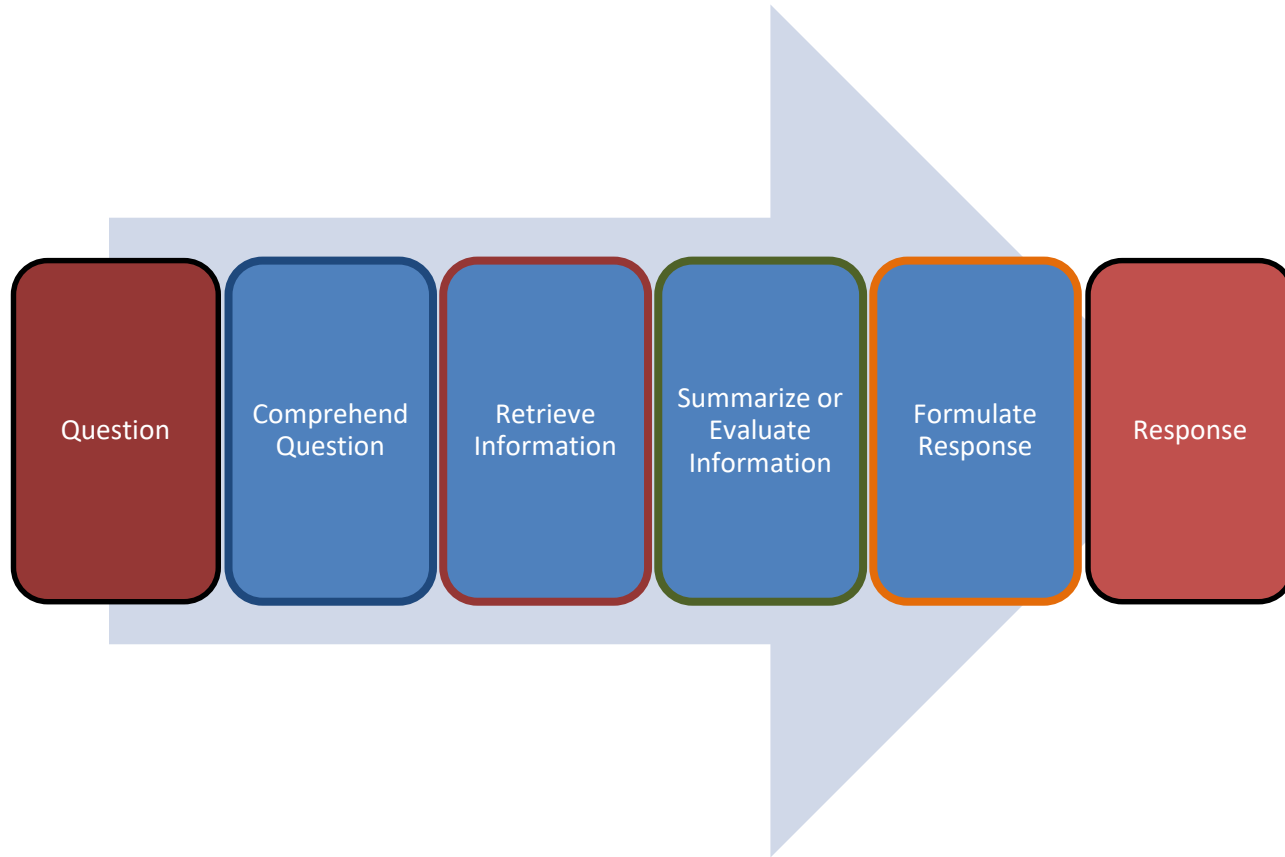
- Behavior
- Dates and Duration
- Demographic

- Subjective

- Attitudes
- Values
- Judgments
- Opinions

Answering Questions

What Respondents Do to Answer a Question



How Respondents Comprehend

- Attend to questions and instructions
- Represent logical form of question
- Identify question focus (information sought)
- Link key terms and relevant concepts



Problems in Answering Survey Questions

- Failure to comprehend
 - If respondents don't understand question, they cannot answer it
 - If different respondents understand question differently, they end up answering different questions



- When was the last time you spoke to your parents?



“Are you a member of a
social organization?”

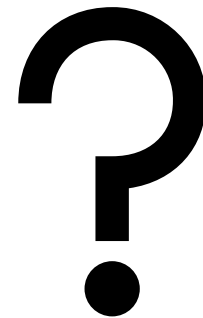


How Respondents Retrieve and Recollect

- Generate Retrieval Strategy and Clues
- Retrieve specific, generic memories
- Fill in missing information



“How many times in the last month did you drink an alcoholic beverage?”



Failure to Recall



- Failure to recall
 - Questions assume respondents have information
 - If respondents never learned something, they cannot provide information about it
 - Problems with researcher putting more emphasis on subject than respondent

Please answer the following:?

- “By the age of three months, had you been received a diphtheria vaccination?”

How Respondents Summarize and Evaluate Information

- Assess completeness and relevance of memories
- Draw inferences based on accessibility
- Integrate material retrieved
- Make estimate based on partial retrieval



Problems in Answering Survey Questions

- Problems Summarizing
 - If respondents are thinking about a lot of things, they can inconsistently summarize
 - If the way the respondent remembers something doesn't readily correspond to the question, they may be inconsistent



“During the last 12 months, since January 1, 2019, how many times have you seen or talked to a doctor or assistant about your health? Do not count times you might have been seen by a doctor while you were a patient in a hospital, but count all other times you actually saw or talked to a medical doctor of any kind?”

How Respondents Respond to Survey Questions

- Map judgement onto response category
- Edit response



Problems in Answering Survey Questions

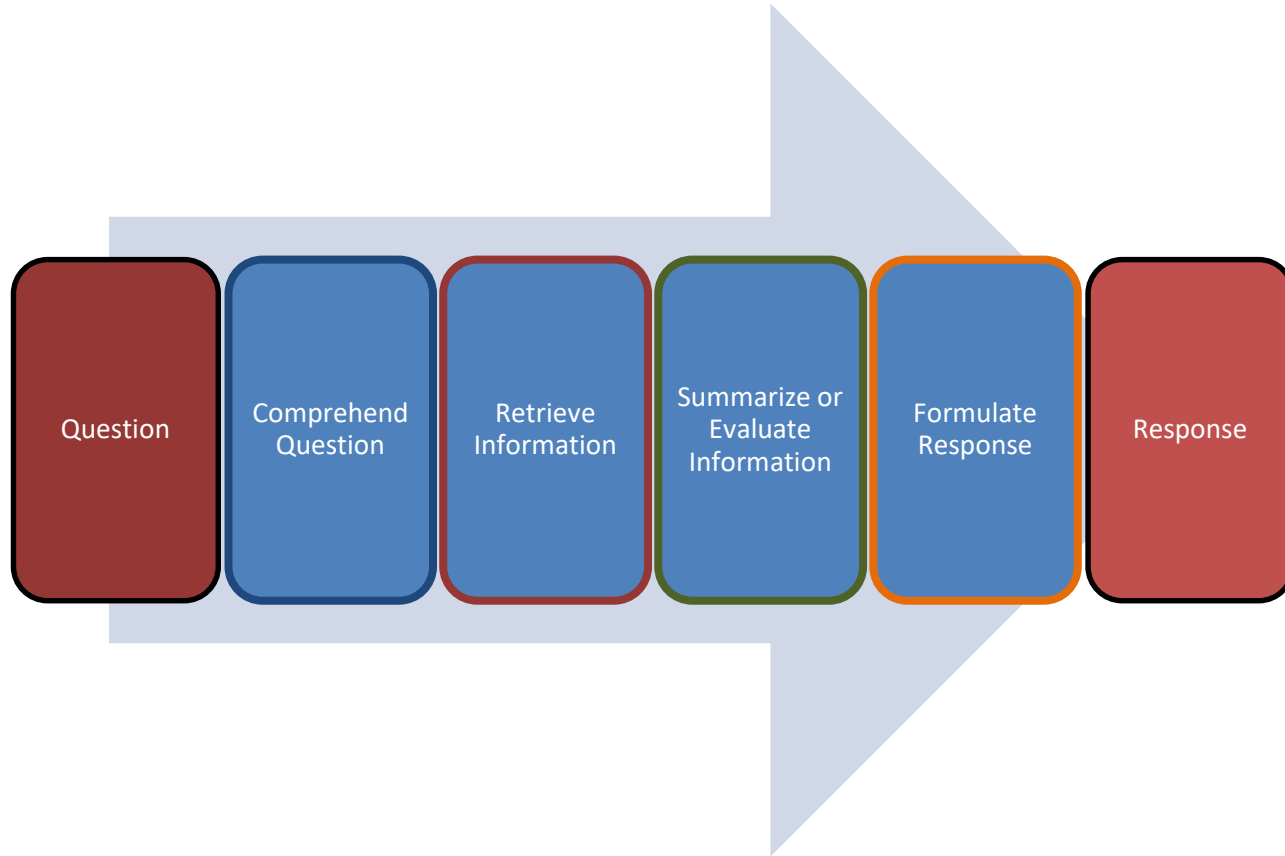


- Problems Reporting Answers
- Confusing or vague answer formats lead to variability
- Interactions with interviewers or technology can lead to problems (sensitive or embarrassing responses)

Please answer the following:?

- “How many ounces of water did you drink yesterday?”

What Respondents Do to Answer a Question



Activity

How many times respondent checks their e-mail
each day

Groups 11, 14, 16

How much time does the respondent work in a typical week

Groups 1 & 15

Does the respondent like veggies?

Groups 2, 7, 13

What the most important quality the respondent looks for in a person to date

Groups 3, 9, 12

Whether the respondent supports free trade

Groups 4, 5, 6, 8, 17