* Survey model:

In person

Mail

Phone

Online

* Types of response formats

Categorial

Ordinal

Likert(a special form of ordinal)

Continuous

* Types of sampling

Simple random sampling

Stratified sampling

Cluster sampling

Multistage sampling

* Decline in response rate

Incentives

Human interviewers

Repeated contact

* Measurement error

Introduced by questions

Introduced by respondents

Problems with self-reported characteristics

How do we reduce? Better question wording, multiple questions on same topic

* Sources of respondent misreporting

Social desirability bias: tendency to present a positive version of self

Complier effects: giving answers that R thinks will please or satisfy the interviewer/researchers

Acquiescence: tendency to agree rather than disagree

Recall: question asks about events long ago

* What makes a good survey

Keep it simple, try to keep lead-in text to a minimum

Avoid technical jargon, big words

What is it that you trying to measure? Unipolar or bipolar?

Make response options match the question

Do not be too cute; response option should be mutually exclusive and exhaustive

Do not encourage acquiescence

* Types of latent traint models

In factor analysis, variables are represented as a linear combination of factors. In principal component analysis, the principal component is represented as a linear combination of variables.

1. Principal component analysis (a linear combination of variables, calculates principle components in a dataset).

Creates one or more index variables from a larger set of measured variables using a linear combination of variables

Aim is to estimate optimal way to decompose data, choice of measured variables for each component, and weights

Eigenvalues: a special set of scalars associated with a linear system of equations, can be used to track decomposition of parameters onto components

1. Factor analysis (similar to PCA, but approaches data reduction in a fundamentally different way).