Operationalization: developing indicators

Operationalization:
- process of developing operational indicators (actual measurement)

Responses to questions:
- must be exhaustive (exhaust every possible response)
- must be mutually exclusive (responses must not overlap)

Range of variation:
- yes/no or degree of response

Levels of measurement (n=4)

- Nominal: categorical responses
- Ordinal: rank-ordered responses
- Interval: standard interval between responses
- Ratio: interval responses with true zero point
Guidelines for developing questions

- Exhaustive & mutually exclusive
- Open- vs. closed-ended
- Brief and clear
- No double-barrelled
- Relevance
- No negative items
- No biased items
- No socially desirable questions

Reliability and validity
(evaluating the adequacy of indicators)

Reliability:
✓ how consistent is the indicator?

Validity:
✓ does indicator measure concept?
Polling example

Modes of data collection

- Classical experiment
- Field research
- Content analysis
- Analysis of existing data
- Survey research
- In-depth interviewing