

Wrap-up: Module 4 & 5

Intro to Module 6: Case study research

2023

4 December 2023

- A researcher finds that two items that are supposed to measure the same construct are *not* correlated. This indicates:

- A. Low convergent validity
- B. High convergent validity
- C. Low discriminant validity
- D. High discriminant validity

- During data analysis, a solution for non-response error is:
 - A. Avoiding bias in questionnaire items
 - B. Weighting**
 - C. Probability sampling
 - D. Using a sampling frame

- Which statement is correct?
- I: Any dichotomous scale is a nominal scale.
- II: Category scales can either be nominal or ordinal
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- A. Only statement I is correct
- B. Only statement II is correct
- ☒ C. Both statements are correct
- D. Both statements are incorrect

Feedback weekly assignment #3

Often made mistakes

- Population is not the same as the sample
If you're going to survey the whole population, there's no sense taking a sample out of the population
- Likert scale
Likert scale is about the level of agreement for a statement, so *not* a question! → You should make statements and ask the respondent what his/her opinion is regarding this statement (e.g. strongly agree)
(Often goes wrong in exams too..)
- Sample frame
Not the same as the population or the sample. . Sample frame is the source material or device from which a sample is drawn. It is a list of those within the population who can be sample
(idem)

Sampling frame vs sampling method

- Probability sampling vs non-probability sampling
- Difference between a sample frame and a sampling method:

So we divide the citizens based on their ages as the following:

People aged 12-17 Minors

People aged 18-25 approx. Young adults

People aged 26-45 approx. Adults

People aged 46-65 approx. Middle-aged

People aged 66-85 approx. Elderly

A sample frame is where you take your sample from.

Stratified sampling

Often made mistakes

- Argumentation about sampling
 - Give argumentation about why are you using this design. Not just how you do it
- Population boundaries
 - Give your population a geographical boundarie and be specific.
 - e.g. Car owners in the Netherlands who are 18 year or older and are registered as so and not just “car owners”
 - Bad example: The Population is the Smart Textile Industry. Because suitable sensor system must be developed using smart textile in order to replace the current sensing technology
 - Good example: High-Tech & Software companies in the region of Eindhoven, Netherlands

Interactive session

- One person presents their questionnaire items
- The others give feedback, using the checklist
 - Avoid double-barreled/twofold questions
 - Avoid ambiguous questions and words
 - Define concepts/terms properly and in advance
 - Avoid abbreviations before you introduce them
 - Use of ordinary words
- Avoid leading or biasing questions ('You are also likely to agree..')
- Social desirability
- Avoid recall-dependent questions
- Avoid emotionally-loaded questions
- Avoid too long questions
- Use words and terms that are culturally acceptable

Q&A

Intro to module 6: Case study research

What are case studies?

- Empirical, in-depth study of **contemporary phenomenon** (“the case”) within its **real-life context**
- **many more variables of interest** than data points
- **multiple sources of evidence**, with data that needs to be **triangulated**

When to do case studies?

- “Contemporary phenomena in their real-life setting, taking into account their rich, qualitative intricacies” (Benbasat et al 1987)
- Why or how questions
 - where researchers cannot manipulate core concepts (Yin, 2018)

Case methods in MOT

- Used in thesis projects
- More to it than students (and researchers) often assume
- On the Research Methods exam, typically the lowest scores on this topic

Assignment

- Consider your research topic: What are possible cases you could work on?
 - What contemporary phenomena could give you insights?
 - What kind of how and why questions could you answer with a case?
 - What data collection methods could be suitable?

Tomorrow's lecture

- Practice with the materials of module 6: case study research
- Work on practical case
- Preparation needed!
 - Watch the learning videos from module 6 *before* the lecture