Good Planning, Better Survey Data: An Introduction to Web Survey Design

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Exercise Descriptions

Duration: 6h + breaks
Participants: 10-20 pax
Format: Lecture style with exercises; online or in person

Activity: Introductory Survey

(corresponds to slide 8)

Format: Live poll using Mentimeter or similar tool
Duration: ~8-10 minutes

This short activity helps participants mentally arrive in the session, creates an engaging start, and gives the trainer a quick overview of participants' prior knowledge and expectations.

Preparation:
Set up a short Mentimeter questionnaire (or similar live polling tool) with 3–5 questions, for example:

Question 1 (rating question):
Please indicate the extent to which you agree with the following statements about your prior knowledge of web survey design.

Please use a scale from 1-5 where 1 means "strongly disagree" and 5 "strongly agree"

- *I am familiar with the different sampling methods in web survey design.*
- *I understand how to motivate people to participate in web surveys.*
- *I am aware of common biases and problems that can affect data quality in web surveys.*

Question 2 (single choice):
Where are you currently in your web survey design process?

- *Haven't started (yet), just gathering information*
- *Planning, defining objectives and target audience*
- *Developing sampling, recruiting and incentive strategy*
- *Creating and implementing survey questionnaire*
- *Finalizing and preparing for data collection*

Question 3 (word cloud):
If you have concrete plans already, which survey platform are you planning to use for your web survey?

Question 4 (open question):
What do you hope to gain or learn from this web survey design workshop?

Instruction:

1. Explain the poll and share the Menti code or link in the chat.

2. Give participants a few minutes to respond.
3. Briefly comment on the live results to acknowledge the group's diversity and expectations (e.g., "Looks like we have a mix of newcomers and some with experience — great for shared learning!").

Exercise: **Identifying representation errors**

(corresponds to slide 23)

Format**:** Plenary discussion (interactive, instructor-led)
Duration: 5–8 minutes

Participants learn to distinguish between different types of representation errors (coverage error, sampling error, and nonresponse error) and apply this understanding to realistic survey scenarios.

Preparations:
Prepare a slide with three short scenarios, for example:

Scenario 1: You are conducting a web survey on internet usage habits, but your sampling frame only includes people who subscribe to a high-speed internet provider
➔ Coverage error

Scenario 2: You are surveying a group of university students, but you only randomly select 50 participants from one campus, even though the university has 10 campuses.
➔ Sampling error

Scenario 3: You send out a survey to 1,000 employees at a company, but only 200 respond, and the majority of nonrespondents are from entry-level positions.
➔ Nonresponse error

Instruction:

1. Show Scenario 1 (without the solution) and ask: *"What type of response error is this?"*
2. Let participants react (e.g. via chat, Menti, hand signals, or orally).
3. Reveal the correct answer and briefly explain why it is correct.
4. Repeat the process with Scenario 2 and Scenario 3**.**

Exercise: Matching research scenarios with sampling strategies

(corresponds to slide 42)

Format: Plenary activity using annotation tools
Duration: 8-10 minutes

This exercise helps participants to reflect on the link between different sampling strategies and the research scenarios they serve.

Preparation:
Prepare a poster or slide that shows 5 typical research scenarios.

Next to these, include a list of common sampling strategies (e.g., simple random sampling, stratified sampling, snowball sampling etc.), each with a unique symbol (e.g., ✔, ✖, →, ❤, ★, ?) or different colour.

Research scenarios may include:

- You want to measure student satisfaction across all universities in a country and randomly select 1,000 students from a national database.
- To study voter behaviour, you ensure proportional representation by sampling voters based on age groups
- You're researching opinions about a new social media platform and survey people who respond to a link you post on Instagram
- You are studying cybersecurity practices among freelance developers. Since there is no public list, you start with 10 developers you know and ask them to recommend others.
- To study the effectiveness of a vaccination campaign in urban areas, you randomly select 10 cities and survey all residents in those cities

Sampling strategies may include:

- Simple random sampling
- Stratified sampling
- Convenience sampling
- Snowball sampling
- Cluster sampling

For online workshops, enable annotation in Zoom and familiarize yourself with the process if needed. For workshops in presence, prepare stamps, stickers or differently coloured pens matching the question type.

Instruction

1. Explain the logic: Participants are to match each scenario with the sampling strategy that they think fits best.
2. If online: Show participants how to use the **Zoom Annotate** tool → **Stamp** feature.
3. Participants read the scenarios and choose a symbol that represents the sampling strategy they'd use and stamp it next to the scenario it matches (2-3 minutes).
4. Give participants 2–3 minutes to work.
5. Once done, debrief by reviewing the annotations together. Discuss the most commonly chosen matches. Highlight where multiple sampling strategies might be valid, and when one is preferable.

Exercise: Matching recruitment strategies to target groups

(corresponds to slide 55)

Format**:** Plenary discussion (interactive, instructor-led)
Duration: 5–8 minutes

This exercise helps participants reflect on the suitability of different recruitment strategies for specific target groups, raising awareness of accessibility, communication channels, and ethical considerations in participant recruitment.

Preparation:
Prepare a slide with of 4–6 target groups, for example:

Target group 1: You are conducting a survey on the professional experiences of early-career researchers in academia.
➔ Researching contact details from institutional websites and sending personalized emails or postal invitations.

Target group 2: You want to understand customer satisfaction with a nationwide telecommunications company. You have access to a database of 50,000 email addresses from registered users
➔ Mass email

Target group 3: You are gathering feedback on the usability of a mobile app
➔ Live pop-up during app usage

Target group 4: You quickly need a nationally representative sample for a study on public opinion about climate change policies.
➔ Online panel

Instruction:

1. Show target group 1 (without the solution) and ask: *"What recruitment strategy suits best?"*
2. Let participants react (e.g. via chat, Menti, hand signals, or orally).
3. Reveal the suggested answer, briefly explain why and discuss other possible strategies.
4. Repeat the process with the following scenarios**.**

Activity: Guess the number

(corresponds to slide 60)

Format: Live poll using Mentimeter or similar tool
Duration: ~5 minutes

This activity raises awareness of the challenges in achieving high response rates in online surveys. By estimating typical response rates and reflecting on response behaviour, participants learn to critically assess the importance of participant motivation and its impact on data quality.

Preparation:
Set up a short Mentimeter questionnaire (or similar live polling tool) with 3–5 questions, for example:

Question 1 (Guess the number):
What do you estimate is the average response rate in web surveys (in percent)?
➔ *44 % (Wu et al., 2022)*

Question 2 (Single choice):
Compared to other survey modes, are the response rates in web surveys on average higher, about the same, or lower?
➔ Lower

Question 3 (Guess the number):

What would you estimate—how much lower are response rates in web surveys compared to other survey modes (in percent)?

➔ 12 % lower compared to other survey modes *(Daikeler et al. 2020)*

Daikeler, J., Bošnjak, M., Lozar Manfreda, K. (2020). Web Versus Other Survey Modes: An Updated and Extended Meta-Analysis Comparing Response Rates, *Journal of Survey Statistics and Methodology*, 8(3):513–539. https://doi.org/10.1093/jssam/smz008

Wu, M., Zhao, K., Fils-Aime, F. (2022). Response rate of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports,* 7: 100206. https://doi.org/10.1016/j.chbr.2022.100206.

Instruction:

1. Explain the poll and share the Menti code or link in the chat.
2. Give participants a few minutes to respond.
3. Use this as a basis to briefly discuss the role of participant motivation and its implications for survey design and data quality.

Exercise: Matching incentivization strategies to target groups

(corresponds to slide 95)

Format**:** Plenary discussion (interactive, instructor-led)
Duration: 5–8 minutes

This exercise encourages participants to reflect on different incentivization strategies and select an appropriate approach based on the specific characteristics of the target group and the available resources.

Preparation:
Prepare a slide with 3-4 scenarios, for example:

Scenario 1: A graduate student is conducting a survey for their thesis on study habits and time management among university students. They want to recruit as many students as possible across multiple universities and have a limited budget.

➔ Raffle of small gift cards/vouchers

Scenario 2: A team of researchers is studying interdisciplinary teaching practices and wants to survey faculty members from various disciplines. The survey is detailed and requires about 15 minutes to complete.

➔ Survey results

Scenario 3: A research team is conducting a survey to study attitudes toward vaccinations in a local community. The target audience includes parents of school-age children, and the survey is distributed online through schools and local health organizations. The survey takes approximately 10 minutes to complete.

➔ Small toys or vouchers for toy stores; charitable donation to child welfare organization

Instruction:

1. Show scenario 1 (without the solution) and ask: *"What incentivization strategy suits best?"*

2. Let participants react (e.g. via chat, Menti, hand signals, or orally).
3. Reveal the suggested answer, briefly explain why and discuss other possible strategies.
4. Repeat the process with the following scenarios**.**