

# Survey Methodology

A guide to good data collection

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# Scope

This is a simple guide to good data collection when surveying customers.

This isn't intended to be a self-contained guide, but an overview of themes to be aware of.

Why Survey?

# Aim of a survey

The aim of a survey is to answer specific questions about a **population**.

It is often not practical to ask the entire population the question so we need to survey a **sample** of the wider population.

Steps to completing a survey:

1. Decide what *population* you want to target
2. Decide exactly what you want to measure
3. Pick a representative sample
4. Craft good questions

How do you do it?

# Phases of Survey Design

## Design

- Wording
- Bias
- Scales

## Data Collection

- Sampling
- Automated Collection

## Analysis

- Repeated Measures
- Control Groups
- Text Analysis

Design

# Wording

Simple changes to wording can have dramatic impacts to your results.

## Create Balanced Wording:

**Bad:** "How awesome do you think our staff are?"

Disagreeing to this question may mean the staff are good, just not awesome. Or it may mean staff are unhelpful. Also it pressures respondents into thinking your staff are awesome to begin with.

**Good:** "How helpful are our staff?"

## Think about order:

1. "How happy are you with your life in general?"
2. "How many dates have you had last month?"

Studies have shown in this order, there is no correlation between results. But reverse the order, and respondents start to associate happiness with their success in their love life, this completely changes the correlation.

# Bias

Be aware of bias that may creep into the questions and survey design.

- Social Desirability Bias - asking questions where it would be social undesirable to disagree.
- Acquiescence Bias - some vulnerable / elderly respondents may feel subjected to a culture of eagerness to please.
- Present a balanced amount of positive and negative statements.



# Scales

- Use a five point (likert) scale if possible. (or 3 or 9)
- Always make 5 positive, 1 negative, 3 neutral
- Propose statements and ask agreement, don't ask closed form questions.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

1

2

3

4

5

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# Data Collection

# Sampling

The point of picking a sample is to survey a manageable group that is *representative* of the wider population.

## Bad Sampling

- Convenience Sampling: e.g. Walking into a shopping centre to conduct a survey on unemployment. This sample is convenient but likely to over-represent middle class and retired people.
- Voluntary Response Sampling: e.g. Inviting respondents to complete a survey. These are biased because people with strong opinions are most likely to participate.

## Good Sampling

- Simple Random Sampling: e.g. Use a blind method such as picking names randomly out of a hat.
- Stratified Sampling: e.g. Sometimes we know there are differences across sites in terms of demographics. We can choose a good cross-section of sites first, then randomly sample residents from each location.

# Picking a Sample Size

Everyone's results will differ a little. This is called *variance*.

To get a true picture of survey results you need to average results over a large sample size, otherwise its hard to separate the noise from the results.

- Usually you need > 15 respondents in a survey
- Always consult a statistician / researcher / online calculator to calculate sample size.

# Automated Collection

Often the way we find it intuitive to record data is not ideal for future analysis.

Always use an electronic survey tool (e.g. SurveyMonkey) where possible.

Benefits:

- Enforces good survey design
- Enforces good completion and compliance
- Eliminates manually re-keying
- Reduces chance of error
- Spits out data in a good format
- Automated reporting and charts for simple analysis

**Analysis**

# Analysing Results

For best results, start thinking about your survey **before** your project, not at the end. Often a survey is interesting, but useless if done only once at the end of a project.

- Take control groups and give the survey to people who didn't take part in your project to test for true differences.
- Do before and after surveys to measure improvements.
- Collect some free text responses, for further analysis