

How to Analyse and Make Sense of your Research Data



What is Data Analysis?

- you have collected your **data** now you need to see
 - what it is telling you?
 - does it answer your research question?
- data analysis is the process of 'making sense' of the data you have collected to understand its significance
- To find this out you need to organize, process and analyse it.



1. Organize & Prepare your Data

Organize and prepare all your data so it is ready for analysis.

- ✓ Enter your data (for example, entering data from your surveys into an Excel file or into a Word file using text and charts).
- ✓ Save all your data (charts or surveys or interview or research notes) in properly labeled folders or organized with paper clips and post its



2. Confidentiality

- Please remove any identifying names or details as needed
- Don't leave your research lying around

CONFIDENTIAL



3. Connecting the Dots & Making Sense of the Data

Quantitative Surveys, Content Analysis, Some types of Observation & Experiments

- **Crunch the numbers:** look at the most frequent and infrequent responses. This may include answers to **how many, how long, how much**, etc.
- What are the majority of participants saying? What is the second most frequent response?
 - **Example:** 50% of participants identified bullying as a significant barrier to their learning



Qualitative Observations & Interviews

What perspectives are represented in the data?

- These are often represented as participants' **opinions**.
- What experiences are represented in the data?
 - These are often **descriptions of what happened**.
- What are impacts are represented in the data?
 - These are **descriptions of how an experience affected the participant or their community**.
- What responses are represented in the data?
 - Responses include **how a participant reacts or responds to an event or experience**.



Grouping the data

Look for common groupings within or across data sets.

Subgroups could include

gender

age

grade level

aptitude level

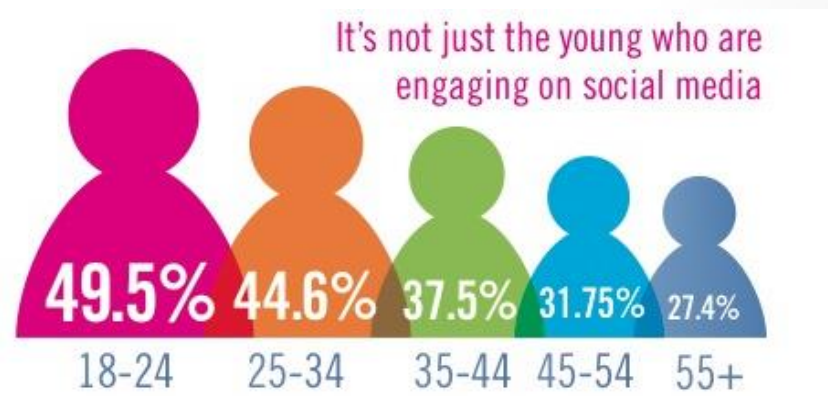
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any other type of group



Comparing & Contrasting the data Look at comparisons between two or more groups.

- What are the differences and/or similarities in responses between groups of participants?
 - **Example:** While the majority of the academic level boys texted in class, the majority of girls at the same level did not.
 - Sometimes this includes complex issues where more than one issue is connected for instance looking at gender and aptitude or gender and age or all three.



4. Building your Analysis

- **Descriptive analysis:** involves creating a list of findings based on the data **without** examining the significance, meanings or relationships in and between these. **Describes what you saw or found.**
- **Interpretive analysis:** you give significance, hierarchical order, or meaning to the findings. **Decide if one factor was more important than another.**
- **Critical analysis:** This step takes interpretive analysis a step further and assigns political significance to the findings. Critical analysis looks at participants' actions/experiences and places them in a wider context (the 'so what?' question). **Explain how the findings are important to life or school or family or relationships.**

Let's practice crunching the numbers

Simple Quantitative Analysis

Data calculation example : Current Health Status. **Calculate what percentage** of participants said that their current health status is **less** than 'good.' Calculate both actual percentage and 'adjusted percentage' (adjusted percentage is based on total number of participants that answered the question).

Q. Would you say your current health is:

ratings	frequency
Excellent	9
Very good	13
Good	23
Fair	20
Poor	10
Adjusted Total	75
Missing	3
Actual Total	78