Feedback on paper summaries

• Summarise the paper concisely and then focus on discussing the content
• Be specific, rather than general
  • Make every word count
• Specify “why” where possible
• Avoid passive voice
• Focus your comments on content and of the paper rather than formatting
Qualitative Research

• Associated with constructivism
  • Reality is a social construction
  • Capture multiple perspectives of same phenomenon
  • Context in which data was collected is very important
  • Relationship between researcher and object/subject of research is taken into account
Qualitative Research

• Qualitative data has no variables per se
  • But, you can generate some:
    • e.g. Counting instances of a code / theme
    • e.g. Correlation between code and age group
Interviews

• Conducted with less people than questionnaires
• Can be structured, semi-structured, or unstructured
• Advantages
  • Flexible
  • Rich interactions
  • Generate secondary level data such as body language or tone of voice
• Disadvantages:
  • Standardisation is hard
  • Less reliability
  • Researcher bias
  • Time consuming
  • Only measure attitudes
Focus groups

- Group interviews between 4–12 participants
- Group can be homogeneous or heterogeneous

Advantages
- Participants interact with each other
- Efficient
- Extreme views are kept in check by the group
- Enjoyable to participants

Disadvantages
- Difficult to manage
- Dominating personalities
- Small sample sizes make it difficult to generalise results
- Group dynamic bias
Asch conformity experiment
(Solomon Asch, 1951)
Diary methods

• Participants record their own experiences
• Capture data in natural contexts
• Substitute for observation

Advantages
• Report of experience close in time to actual experience
• Data generated by participant

Disadvantages
• Require lots of training and briefing of participants
• Time consuming for participants
• Participants may want to please researcher (bias)
Data Analysis

• Qualitative and quantitative data require different methods to be analysed
  • e.g. you cannot analyse numerical data using grounded theory
• Method should be appropriate to research question
• Amount of data collected should be enough to test hypothesis
  • If you have few data points you will not achieve statistical significance
Quantitative Data

• Start by looking at the data graphically
  • e.g. frequency distribution

• Look for trends in the data
Quantitative Data

• Fit a statistical model do the data
• Statistical models allow us to make predictions about the phenomenon being studied
• The closer the fit between model and data the more confident we can be in our predictions
• The mean is a very simple statistical model
  • e.g. You could predict that if you ask a random person what their email password length is, it will be 7.7 characters long
Quantitative Data

• Statistical test used depends on:
  • Number of predictor (independent) and outcome (dependent) variables
  • Type of variables: categorical vs. continuous

• If you wanted to the relationship between two categorical variables:
  • Effect of type of online advertisement (image vs. text) on purchases (yes vs. no)
  • You would use Pearson’s chi-square test
Qualitative Data

• Most qualitative data analysis starts with the identification of themes
• Themes are patterns in the data
• Analysis involves:
  • Coding (tagging) interesting passages of text (e.g. interview transcript) consistently
  • Grouping codes into themes
  • Interpret themes and relate them to research questions
    • e.g. You find several quotes in interviews you made about passwords that mention they are “too long”; “too complicated”; “difficult to memorise”; “if I don’t write them down I will forget for sure”
Qualitative Data

• Thematic analysis stops at the identification of themes
• Grounded theory analysis goes further
  • You group codes into categories
  • Identify properties and dimensions of each category
    • e.g. category “surveillance” has the property “frequency” with a range going from “never” to “often”
  • Relate categories to each other
    • e.g. “high peer pressure” links to “soft drugs consumption”
• Find the main category, i.e. the phenomenon, and write theory around it
Qualitative Data

• Seems complex and vague

but

• In the end it boils down to spending time looking at the data and making sense of it
• When in doubt stay close to the data
  • i.e. do not make wild interpretations, instead make the codes match the corresponding passage of text as much as possible
Presenting Results

• What did you find out as a result of your study?

• Use figures in addition to text:
  • Figures condense information
  • Scientific paper have page limits, but more importantly…
  • The reader has attention limits
    • You want to capture and retain their attention and interest, not bore them!
Presenting Results

• There should be a logical structure in the way results are reported
• You are taking the reader on a journey with you
• You are telling a story
• Even if the story is very rigorous and detailed scientifically, it is still a narrative
Presenting Results

• Use descriptive statistics that give an overview of the sample composition

• Present themes identified in qualitative analysis
  • Describe each one
  • Exemplify with quotes from data
Presenting Results

- Describe statistical tests conducted
  - Explain why specific test was chosen?
    - e.g. was data parametric, non-parametric?
  - Describe relationship between variables
  - Were your hypotheses supported?
  - Each statistical test should follow certain conventions for how it is reported
- Leave implications of results for the discussion / conclusions section
Conclusions & Further Work

- May be merged with discussion of results
- Reference to study’s purpose and hypothesis
- Recap of major findings
- Interpretation of the results
  - Why did I get these data/find these relationships?
  - What does it imply?
  - Why was my hypothesis rejected?
  - How do my results compare to similar studies?
  - Why were they similar/different?
Conclusions & Further Work

• Limitations of study
  • What prevents findings from being internally valid or generalisable (externally valid)?
    • Sample size?
    • Sample composition?
    • Lab setting?
    • Researcher bias?
    • Learning /boredom effects?

• Academic honesty
Conclusions & Further Work

• What are the implications of your study?
  • For other researchers?
  • For practitioners?
    • What recommendations can you make to them?
    • In which way would they improve their processes / products?
Conclusions & Further Work

• What is the contribution of your study?
• Substantive
  • New theory?
  • Update to existing theory?
  • New explanation for a phenomenon already identified?
  • Identification of new phenomenon?
• Methodological
  • First to solve new problem?
  • First to solve old problem using existing method?
  • Development of new method?
  • Testing of new method?
Conclusions & Further Work

- Future research
  - Which new research questions did your study reveal?
  - What would be a good follow-up to your study?
  - Which gaps in your research field would it cover?
  - How could you address the limitations of the current study in a new one?