

# Writing Chapter 5: Discussion



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# Objectives of Workshop

- To gain a better understanding of the contents of a well-developed Chapter 5
- To introduce students to the subsections of the chapter
- To discuss ideas related to the presentation, interpretation, and implications of dissertation findings
- To present an outline of Chapter 5

# Overview of Chapter 5

- A well-written Chapter 5 should include information about the following:
  - Summary of findings
  - Interpretation of findings
  - Context of findings
  - Implications of findings
  - Discussion on limitations of study
  - Discussion on future directions of research/field

# Summary of Findings

- Begin with a summary of your results using little or no statistical jargon.
- Use “the layperson test”: How would you explain your findings to a relative?
- One way to organize this section is around whether findings did or did not support the study’s hypotheses or research questions.
- Make sure to include unusual findings as well (e.g., results that you did not expect to be significant but were, and vice versa).

# Interpretation of Findings

- This section addresses the meaning of your findings.
- In some cases, when your results are in the direction you predicted, this meaning was anticipated when the study was designed.
- In cases where the results are not all in the desired direction, researchers must explain why this was not the case.
  - Address sampling, measurement, and procedural issues as well as confounding variables
- Keep in mind that the absence of significant findings does not necessarily mean the *confirmation* of the null hypothesis; explore alternative explanations.

# Context of Findings

- Remember that your study, as important as it is, was not the only one in the area, and, as such, it must fit the existing literature.
  - Consider how the findings fit the Literature Review in terms of population characteristics, assessment instruments, independent variables, research design, and procedures.
  - Are your findings in agreement with existing literature? Do they contradict it? Do the findings extend previous research? Do they solve or clarify contradictions in the literature?

# Implications of Findings

- This section addresses the issue of whether research findings improve (or change) the field's understanding of the phenomenon under investigation.
- Consider the implication of findings in at least three areas: theory, research, and practice.
  - Are findings consistent with current theories in the field? Are they consistent with selected theoretical framework?
  - Does the study help advance research methodology? (e.g., understanding of new confounding variables, issues of measurement, issues of design)
  - Who may be interested in using these findings in a professional field? Why should they pay attention to the findings? Could the findings lead to changes in the way professionals “do” things?

# Limitations

- Think of it as a “humility subsection.”
- In your proposal, you would have addressed potential limitations of the study as the final subsection of Chapter 3.
- Look at potential limitations as you initially proposed and then discuss those that may have affected—one way or another—your findings.



## Limitations (cont.)

- Limitations typically originate in one of two sources: the study's design and the study's problems during implementation.
- Issues of design involve decisions about sampling, assessment, procedures, and choice of research design (poor match).
- Issues of implementation must be addressed (e.g., low sample, measurement issues, heterogeneous groups).

# Limitations (cont.)

- Think of limitations in four major areas (but all four need to be present):
  - Internal Validity: unless the study is a “true experiment” one cannot claim that the IV “caused” changes in the DV
  - External Validity: issues of the extent to which findings can be generalized must be discussed
  - Measurement: discuss issues of reliability and validity of assessment instruments
  - Statistical analysis: discuss issues of power, effect size, conservative or liberal statistics and statistical test chosen

# Future Directions

- Discuss findings in light of questions or issues that suggest future research directions.
- Extend the study to other populations.
- Think of other IVs and DVs that ought to be explored in the field, also, think of how to assess those additional variables.
- This is the section of the paper where most researchers are allowed to dream; think of extending your study to other questions that may add to the understanding of the issues.

# Tips to Write Chapter 5

- Be a critical thinker; as you write your concluding remarks, play the devil's advocate and put yourself in the shoes of your future readers.
- Avoid common mistakes:
  - If the numbers seem to suggest a direction but are not statistically significant, then don't treat them as if they were significant
  - Do not use cause-effect language to refer to correlations
  - Do not think of statistical significance as effect size
  - Do not present new analyses in the discussion section
  - Do not make Chapter 5 a repetition of Chapter 4

# ARC Guidelines

- Templates may be found in the *Applied Dissertation Procedures Manual* and at the ARC website.
- Chapter 5 is only submitted as part of the final dissertation report (i.e., not in the proposal)
- Additional headings, based on the student's topic, may be included.

# ARC Guidelines (cont.)

- Introductory paragraphs provide an overview of the study
- Results are elaborated and interpreted in sequence and relative to each research question
- Conclusions and summaries regarding the findings are offered
- Findings are linked to existing research
- Implications of findings are discussed
- Limitations are indicated
- Recommendations for future research are offered

# Chapter 5 Outline

- Summary of Findings
  - Avoid technical detail
  - Use clear language
- Interpretation of Findings
- Context of Findings
  - Consider if there is convergent or divergent findings as compared to existing literature
- Implications of Findings
  - Theoretical implications
  - Methodological implications
  - Applied implications

# Chapter 5 Outline (cont.)

- Limitations of Study
  - Internal and external validity issues
  - Measurement and statistical issues
- Future Directions
- Remember:
  - Be a critical thinker
  - Avoid common problems
  - Use an outline to write the chapter



# Reference

Cone, J. D., & Foster, S. F. (2006). *Dissertations and theses from start to finish: Psychology and related fields*. Washington, DC: American Psychological Association.