

Chem 360 lecture 7a

Discussion Section

Admin matters & impt dates

- Today: Pick up :Quiz3; Methods draft; Methods; Results draft
- Turn in HW: Ex. 5.1
- Important coming days:
- Wed (5/12): revised Results Section due
- Friday(5/14): Discussion draft due
- Mon (5/17): Quiz #4
- Wed (5/19): Discussion section due
- Fri (5/21): University-wide furlough*

Comments on Methods Section

- Title. Draft ≠ a summary; should not be late.
- For Methods Section:
 - 1)Omit or avoid: a) solution preps; b) common equipment; c) washing of glassware or surfaces; d) non parallel subheadings.
 - 2) Include: a) vendor info; b) subheadings;c) concentrations of standards & internal stds

Comments for Results Section

- When appropriate, consider a graph or a bar diagram to “set the stage” early in move #1
- But not too many graphs if possible especially raw “data” graphs (e.g GC chromatograms).

for Revised Results Section

- Title of Topic
- Your name
- “Revised Results Section”
- type written double space
- Don’t do integrated or iterative (so we get to do discussion separately)

Today’s topic: Discussion (as a separate section)

- Considered “Heart of the paper”
- Merits several rewrites
- Include other relevant issues
- Answers questions posed in introduction

Discussion: Purpose

- 2 main purposes
- a) To interpret (explain) results
- b) To propose broader implications of findings –

Discussion: 2 main audiences

- Audience levels correspond to purposes:
- a) Interpretation – expert audience
- b) Implications – broader scientific audience

Discussion focus

- Focus corresponds to purpose
- a) Interpretation – expert audience- specific
- b) Implications – scientific audience – more general

Discussion organizational moves

- 2 moves
- Move #1: Discuss specific results
 - 1.1 Remind reader of results
 - 1.2 interpret the results
- Move#2: Conclude the paper
 - 2.1 Summarize the work
 - 2.2 Suggest overall implications

Submove #1.2: Interpreting results

- Heart of discussion section
- Findings are proposed and elaborated
- References corroborate findings with evidence
- New insights
- Implications
- Deeper understanding
- Practical applications

What to avoid

- Overinterpretation of Results
- “Handwaving Arguments”
- Unwarranted Speculation
- Inflating Importance of Findings
- Tangential Issues
- Conclusions Not Supported by the Data

Characteristics of discussion section

- Use “Hedging” words
Example: These results prove that a high cholesterol diet leads to atherosclerosis.
(acknowledge study’s limitations)
- Corroboration of findings
Example: Studies¹⁻⁶ show a high correlation between diet and plasma cholesterol levels.
(Relate your work to other similar studies)

Move #2

- Submove 2.1: (summary/conclusion)
“In summary...”
give conclusion – the “take home message”
“These data suggest that smoking is the most important risk-factor in atherogenesis.”
- Submove 2.2 (implicat’ns/applic’ns/future work)
“Using aerosol-based fertilizers may readily increase crop yield in drought-stricken areas.”

Comments on HW. Exer 5.1

- “Discussion section” of Excerpt 4A
- Submoves:
- Hedging examples and why
- Purpose of concluding paragraph
- Why study conducted?
- Look at scope of paragraphs: narrow?broad?
- Audience: scientific or expert?
- Take home message? The audience?

Group exercise

- Do exercises:
- 5-14 (sentence #1 only)
- 5-16 (do a. - f. but not Excerpts 5A-5E)
- 5-17 (3 examples)
- *** write these down!!!