INTRODUCTIONS, CONCLUSIONS & RESEARCH QUESTIONS

Academic Writing Center – Graduate Writing Workshop
I’m Emily Rose Cole, the Graduate Assistant to the Academic Writing Center (coleer@mail.uc.edu)

I’m a PhD candidate in the English and I’ve taught composition and creative writing for over seven years at the university level.

I’m here to assist you and develop presentations through AWC to meet your needs as grad students.

Don’t hesitate to reach out!
What We’ll Discuss…

- Research questions: what they are, why they matter
- Questions to consider (about your question)
- Real-world examples of research questions from different disciplines
- How introductions vary based on discipline
- Common structures in introductions and how to use them
- Common structures in conclusions
- Tips on how to connect your research to the wider world
Clarity of Intention

• Understanding your **audience** and your **tone** allows a writer to communicate more clearly.

• Clarity of writing also comes from **clarity of intention**. That means that your audience understands what you’re writing about, what context is necessary, and what questions your research is asking and answering. You can express clarity of intention through:

  • A clear research question (or thesis, depending on the discipline)
  • Organization of ideas
  • Citation of credible sources
<table>
<thead>
<tr>
<th>Thesis Statements vs. Research Questions: What’s the Difference?</th>
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</thead>
<tbody>
<tr>
<td><strong>A Thesis Statement:</strong></td>
</tr>
<tr>
<td>• <strong>Summarizes</strong> the main point of an essay or research paper</td>
</tr>
<tr>
<td>• Involves a <strong>specific claim or assertion</strong> about a topic that can be debated or challenged</td>
</tr>
<tr>
<td>• Shows the reader that this claim will be <strong>developed with examples and evidence</strong></td>
</tr>
<tr>
<td>• Is often used in the humanities</td>
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<tr>
<td><strong>A Research Question:</strong></td>
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<tr>
<td>• Makes an <strong>open-ended query</strong>, not a final claim or conclusion</td>
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<tr>
<td>• <strong>Focuses</strong> a study, leading to focusing the paper overall (just like thesis statement does)</td>
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<tr>
<td>• Helps <strong>determine methodology</strong> of experiments and may guide all subsequent stages of inquiry, analysis, and reporting</td>
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<tr>
<td>• Is often used in the sciences</td>
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</table>
Why have a research question?

- Central question (or series of related questions) that guides your research
- Stated early in the process (but can revised)
- Helps keep you focused
- Leads into your hypotheses
Getting to Your Question

“Right from the beginning, reading very widely and deeply is key because that helps you see exactly who else has researched that area already, which is something that you need to know.”

- Dr. Victoria Perselli

• **Read!** Illuminates key players, important vocabulary, state of the research.

• **Discuss!** Talk with you adviser, colleagues, peers, pets. Explain what you’re thinking about to both experts and nonexperts.

• **Write!**
  - “Free write” your thoughts, concerns, interests, questions
  - What you’re interested in → preliminary hunches, idea, questions
Questions to Consider

• What are the important research questions in your field?

• What is missing in the research in your field?

• Will your research fill a gap in the research?

• Has there already been a lot of research in this area?

• If your study has already been done – is there a way you can improve it?

• Is the research relevant to current issues in the field?

• Will your research have an impact on your field? On the world outside of academia?
General Tips

• Develop more than one question, if necessary

• The question should not have a “yes” or “no” answer

• Utilize the jargon of your field to be specific/accurate

• The answer to your research question shouldn’t be intuitive; the answer should require further research. That’s why you’re studying it!

• Be as specific as possible

• The type of question you ask and the way you ask it will vary depending on your discipline
REAL WORLD EXAMPLES
Real examples: Theatre

“How can a gestic feminist dramaturgy be applied to these particular feminist playtexts as a method of expanding and extending traditional text- and performance-based criticism into an embodied, historicized praxis?”

- Shannon Baley, Theatre
Real examples, Geography

1. In what ways did prominent nineteenth-century geographical discourses regarding Mars’ surface features and inhabitants reflect the specific social contexts of astronomical societies, sponsored observatories, and the larger Western scientific communities?

2. How were scientific representations of Mars as an inhabited, irrigated planet contested and, ultimately, widely accepted as true in Europe and the United States?

3. To what extent did geographies of Mars challenge dominant discourses of modern Western superiority by representing the planet as a landscape inhabited by beings with superior engineering and organizational skills?

-Maria Lane, Geography
How does the water balance of a region, including surface runoff, change as a result of climate alterations, and to what extent do these changes influence vegetation dynamics or species’ migration? What role does vegetation structure and function play in mediating those changes, and what are the potential feedbacks between the vegetation and hydrology? Do the interactions between ecological and hydrological processes vary across temperature, moisture, and topo-edaphic gradients? Can we attribute climate-induced changes in hydrology and the water balance to specific formulations of either the dynamic global vegetation or biogeochemistry models?

- Wendy Gordon, Integrative Biology
1. Did social parasitism evolve once in the *Megalomyrex* genus? If so, the parasites will form a monophyletic group. Alternatively, if social parasitism evolved multiple times, the parasites will form a polyphyletic group.

2. Did social parasitism arise from behaviors related to a primary predatory lifestyle, following the Predation Hypothesis? Behaviors involved in interspecific interaction, including chemical communication and host suppression, will be investigated.

- Rachelle Adams, Evolution, Ecology, and Behavior
INTRODUCTIONS
"The aim of this study is to describe the direct or instrumental use of policy-relevant information in the policy-making process of the Chilean secondary education reform carried out between 1995 and 2000. This is a very peculiar setting because of the strong background in social research of the policy-makers who were in charge of the design and implementation of the reform policy. The result of this study provides a better understanding..."
Background

- Expands introduction
- Gives overview
- Builds to problem statement
- Cites antecedents/related research
- Highlights theoretical constructs

**Societal:** Relevant developments/changes in society

**Theoretical:** Relevant theoretical/philosophical movements

**Professional:** Relevant developments in the field

**Research:** New methodology that needs testing; methodology that needs improvement
Problem Statement

- Shows that study is necessary
- Gives reason for examining problem with new lens
- Includes: context, rationale for claiming there is a problem, definition of problem

“Little empirical research exists that measures the effects of training on adult peer tutors, and none exists which investigates the effects of experience on adult peer tutors in post-secondary institutions. The question posed then is: Do tutors’ responses to tutoring situations change as a result of training or experience?”
<table>
<thead>
<tr>
<th>Purpose of the Study</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Answers:</strong> Why did you spend years of your life doing this study?</td>
<td><strong>Intrinsically Important:</strong> The study affects people</td>
</tr>
<tr>
<td><strong>Avoid claiming too much (e.g. “It is the most important issue...”)</strong></td>
<td><strong>Conflicting Evidence:</strong> The study finds the right answer</td>
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<tr>
<td><strong>Can include subsections (research questions, limitations, etc.)</strong></td>
<td><strong>Examines Theory:</strong> The study tests what has only been theory until now</td>
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<td></td>
<td><strong>Impactful Results:</strong> Findings affect practitioners</td>
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<td></td>
<td><strong>Unique:</strong> Study explores previously overlooked area</td>
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<td><strong>Methods:</strong> New methodology</td>
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Significance of the Study

- Elaborates on the outside significance to field, literature, profession including:
  - Why topic is worth exploration
  - How it impacts policy
  - How to helps understand theory

“The IT use literature has largely considered use of IT as the one-on-one interaction of the individual with technology, exploring the factors and conditions driving such use (e.g. Venkatesh, et al., 2003). My study contributes to the literature by considering such human-computer interaction as one aspect of the broader changes in work processes that this system is enabling.

In addition to the IS literature, the study also contributes to two areas of research commonly studied within the domain of management: technology-induced change and social networks.

From a practice standpoint, this study is relevant and timely for the healthcare sector, which is currently in the midst of significant changes in the way patient-care is delivered.”
Methodology

- Just an overview – can say it will be expanded upon in Chapter X.
- What methods you used and why
- Consider: design, subjects, assessment, procedures

“The basic design of this study was an experimental, pretest-posttest control group design. Participants were randomly assigned to one of two groups. Each group was given the same pretest measurements, intervention was given to one group, and then posttest measurements were taken on each group. The study was also a combined quantitative and qualitative design. The differing methods of data collection and analysis utilized in this study necessitated a combined study design.”
<table>
<thead>
<tr>
<th>LIMITATIONS</th>
<th>DELIMITATIONS</th>
<th>ASSUMPTIONS</th>
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</thead>
<tbody>
<tr>
<td>Potential weaknesses (design, methodology) that limit scope</td>
<td>Self-imposed boundaries of the study/How you intentionally narrowed study</td>
<td>Accepted to be true</td>
</tr>
<tr>
<td>Anticipate limitations and explain how you’ve tried to minimize them</td>
<td>Findings cannot be generalized</td>
<td>Explain why assumptions are probably true</td>
</tr>
<tr>
<td>Example: This study is limited to first-year University of Cincinnati students.</td>
<td>Example: The decision to use only University of Cincinnati students limits the ability to generalize findings outside the institution.</td>
<td>Example: Subjects will be truthful because interviews are anonymous and confidentiality is ensured.</td>
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<tr>
<td>Definition of Key Terms</td>
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<td>-------------------------</td>
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<tr>
<td><strong>Specific terms central to study</strong></td>
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<tr>
<td>Often terms related to independent, dependent, and control variables</td>
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<td></td>
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<tr>
<td>Define terms that are: new, have ambiguous usage, are general but you are using in a specific way</td>
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<tr>
<td>List alphabetically with appropriate citations</td>
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“Alternative School: a public (not private or independent) school whose program is considered to be substantially different from standard educational programs, which students choose to attend rather than attending the school to which they would ordinarily be assigned.”
Objectives and Outcomes

- Connect research objectives and outcomes to theoretical and conceptual framework
- Connect overarching question to research questions or hypothesis

“The specific objective of this dissertation is to study the control of the hydrodynamics and heat transfer in networks by means of theoretical, numerical and experimental methods.”
The End

CONCLUSIONS
Conclusions

In a scientific paper, the conclusive part of the study can sometimes be called:

• Interpretation and Recommendations
• Summary and Discussion

• These headings vary by field

• Look up examples in your field or ask your advisors to make sure your headings are accurate
Beginning a Conclusion

- Check department norms

- Some conclusions include a restatement of: problem statement, theory, methodology, results + outline of conclusion chapter
  
  - Copy problem statement from Introduction
  
  - General review of methodology, enough specificity for someone who didn’t read methodology chapter

- Some require a restatement of: purpose, research questions, hypotheses, conceptual framework, literature review
Summary of the Results

• List results as group and separately discuss or list separately

• As much as possible, save interpretation for the next section. Try to describe results as objectively as possible in the summary

• Go from general to specific

“No support emerged from the current study of any of our four hypotheses. First, the study provided no support for the hypothesis that overly positive self perceptions and aggressive behavior would be positively associated cross-sectionally. Second…Third…Finally…”
Discussion of the Results

Relationship of the Current Study to Prior Research

- May be own section
- “Previous research says this…but I say…”

Explanation of Unanticipated Findings

- Consider: “problems with the research design, the use of an exceptional population, sampling errors, mistakes in the control of variables, defects in the instrument, or poor implementation of the treatment”
- Note the problem; don’t blame/apologize
- Remember, the point is to express limitations in your study so other researchers can build on your research and potentially address these limitations
Limitations

- Consider: “validity, reliability, credibility, trustworthiness, methodological issues
- Connect to limitations that may occur in future studies

Summary & Conclusions

- Look to department norms for title (summary or conclusions)
- “Comprehensive summative statement
- Highlight the most important aspects of your dissertation
- Can suggest ideas for future research
- Give your perspective
Implications

Theoretical Implications of the Study

- Does it confirm a theory? Disrupt a theory?

Implications for Practical Uses of Research

- Avoid implications beyond scope of your study

Recommendations for Further Research

- Clearly state ways future researchers can apply your theory or research design
- Suggest possible improvements that could be used in future research
- Suggest whether there should be additional research and what the design should be
- Connect your research to other research in the field, suggest further areas of research
Summary

Research questions focus your research, help determine methodology, and give readers a good idea of where the study is going.

A good introduction should give the reader enough background information, define key terms, include the central research question(s) and make clear why the study is important.

The structure of an introduction, conclusion, and research question will change based on the field of study.

A thorough conclusion may restate the research question and will discuss the results of a study, examine the study’s limitations, and suggest avenues for further research.

Be careful not to discuss results beyond the limits of your study.
The Academic Writing Center

• The Academic Writing Center is here to help you! We have tutors available, helpful handouts, other resources available from our website. Visit our website at uc.edu/awc. All our resources are online this year.

• Individual tutoring isn’t just for undergrads! There are graduate tutors who are excited to help you work through any of your writing assignments. Sign up using the “schedule an appointment” tab on the website.

• We thank you for attending our first AWC Graduate Workshop. The schedule for the seven other workshops this semester is posted at: www.uc.edu/learningcommons/writingcenter/grad.html
Questions?

• Are there any questions that you have that weren’t covered by this presentation so far? Ask now!

• Please unmute to ask your questions aloud, since chat can be hard to follow 😊
Sources

- “Dissertations” – The Writing Center at UNC Chapel Hill

- “How to Choose Your Research Question” – PhD Talk

- “Tips for Developing PhD Research Questions” – Times Higher Education

- “Developing Research Questions” – Dissertation Recipes

- “Developing Your Research Questions” – Nova Southeastern University

- American Psychological Association - “Discussing your findings”


- Thesis Statements, Research Questions, and Problem Statements – Royal Roads University Library