THESIS/DISSERTATION 101:

- Research Question
- Working with a Committee
- Proposal
- Planning a Dissertation/Thesis
THE RESEARCH QUESTION
The first thing to know is what is and is not a research question.
A research question is not data.
A research question is not statistical analysis.
THE RESEARCH QUESTION

A research question is not knowing the literature of your field.
THE RESEARCH QUESTION

- The **argument** is the answer you will promote for the **research question**.
- The **argument** is your **thesis**.
THE RESEARCH QUESTION

- Parts of a #winning research question:
  - Does it address outstanding theoretical issues in your field?
  - Does it have significance?
  - Can it be solved?
THE RESEARCH QUESTION

- Is your question too broad? Too narrow?
  - A question that is too broad will not be answerable.
  - A question that is too narrow will not be compelling or generalizable.
WORKING WITH A COMMITTEE
WORKING WITH A COMMITTEE

• Pick people who can support your project
  • Don’t be afraid to have informational interviews.
  • Take professors/faculty for a test drive.
  • Read up on them.
  • Are they retiring or currently searching for another position?
WORKING WITH A COMMITTEE

• Relationship to Committee
  • Wholly different from undergraduates and professors
  • You will be working closely with these folks for a while (for some it will be longer than others).
  • Personal and professional lines can blur.
  • Don’t be afraid to offer structure to the working relationship.
WORKING WITH A COMMITTEE

• Structure the Relationship
  • Figure out how each committee member prefers to communicate/work.
  • Come up with a plan of how you will communicate.
    • Emails? Phone calls? Regular appointments? How often?
  • Meeting agendas
  • Calendars/Deadlines
  • Information sharing:
    • “To CC or not to CC? That is the question…”
THE PROPOSAL
PROPOSAL DEVELOPMENT

• The proposal varies with department, program, and specialty.
• Some require formal public defenses.
• Others don’t require a proposal at all.
PROPOSAL DEVELOPMENT

• Two important things to always consider on every paragraph in the proposal:
  • Are you staying *focused* on your research question?
  • Do you have the concerns of *your committee* in mind?


PROPOSAL MECHANICS

• What’s in a proposal?
  • Introduction
  • Problem Statement
  • Conceptual/Theoretical Framework
  • Data Collection & Analytical Methods
  • Significance
  • Timeline
PROPOSAL EXAMPLES

• Ask dept administrator/faculty if they have examples of past proposals on file.

• Ask friends and past students who have passed the proposal stage to share theirs with you.

• The best way to learn how to write a proposal is to read one.
PLANNING THE THESIS/DISSERTATION
PLANNING THE DISSERTATION/THESIS

- Keep the matrix in mind.
- The Research Questions and the Proposal will be the building blocks for your plan of attack.
HOW LONG IS IT?

• “A dissertation should be just as long as it takes to defend the research, but no longer.”
HOW LONG IS IT?

• Mathematical Dissertations: 50-80 pages
• Biology: 4-5 papers
• Anthropology: ~400 pages or 3 papers + intro, conclusion
HOW LONG IS IT?

• As long as your committee decides it should be.
WHAT DOES IT LOOK LIKE?

• The best way to understand what a dissertation looks like is to read one/a few.

• Check out past dissertations from your program on LoboVault.
  • repository.unm.edu
  • Ask faculty for suggestions… their opinions are the ones that matter the most.
STRATEGIES FOR WRITING

• The Outline
  • Powerful tool
  • Include citations, page lengths/word counts, other details.
  • Include deadlines if you like.
  • The more detailed the outline, the easier it can be to write.
Forchammer’s forest transition argument coupled with midden deposits

- Johan Forchhammer (1794 - 1865), considered the father of Danish Geology, oversaw a commission on shell middens with Steenstrup and Worsae. They studied the middens on Sjaelland and identified that the middens had formed in a mixed fir, pine, and oak forest. (600 words)

Development of Palynology: (5000 words)

- The first significant pollen classifications originate in John Lindley’s 1830 work on orchidaceous plants. Trybom (1888) identified pine and spruce pollen in a Swedish Quaternary lake deposit, arguing that they could be used as index fossils for the period. C.A. Weber (1893) developed the first quantitative presentations of pollen. His were also the first figures to use relative frequencies. (600 words)
- Blytte (1876) and Sernander (1908; 1910) identified alternating warm and dry periods following the retreat of glacial ice - developing a model for forest succession that could be easily recognized in pollen assemblages across Europe. (400 words)
- Lennart von Post developed the first pollen diagrams (1916) that displayed frequencies of pollen per sample over time, a method of analysis that continues to dominate palynology today. (700 words)
- Rudolph (1931) developed the first forest transition model for Holocene Europe, identifying four key phases, including 1) Betula-Pinus, 2) Corylus, 3) Quercetum mixtum, 4) Fagus. (200 words)
- Iversen (1946) revised von Prost’s original pollen diagrams to hold arboreal pollen equal with anemophilous herbs and Ericales. These combined totals became the percentage. This helped demonstrate changes in forest density. (800 words)
- Fagerlind (1952) identified problems with non-linearity as pollen abundance data is expressed as relative relationships.
- Sugita (1995) developed a model to estimate pollen contributions to lakes, establishing a model of source area productivity. She identified 50m as an important threshold for distance. (100 words)

Dendroclimatology: (2000 words)

- A.E. Douglass (1867 - 1962) developed the science of dendroclimatology in 1894 while working for the Lowell Observatory. (1000 words)
- Clark Wissler (1870 - 1947) suggested to Douglass in 1918 that by counting the tree rings in Aztec Ruin and Pueblo Bonito, he could determine when they were built. The resulting analysis revealed that the last timbers of Pueblo Bonito predate Aztec Ruin by 40-50 years. (1000 words)
STRATEGIES FOR WRITING

- Writing Groups or Circles
  - You are not alone!
  - Keep tabs on each other’s progress.
  - Review each other’s work - content or editing.
  - pPE
    - Peers
    - Professors/Professionals
    - Experts
STRATEGIES FOR WRITING

• Calendar
  • Develop a calendar for each stage of the project.
  • Figure out a writing schedule.
    • Not only for long term but daily goals
  • Specific goals are the best.
• Keep in mind the rule of threes:
  • Tell ‘em what you’re gonna tell ‘em.
  • Tell ‘em.
  • Tell ‘em what you told ‘em.
RULE OF THREES

• Whole Thesis/Dissertation:
  • Intro – What it will say
  • Body – Details of the work
  • Conclusion – Summary and Concluding Points
RULE OF THREES

• Each Chapter:
  • Intro – What it will say
  • Body – Details of the work
  • Conclusion – Summary and Concluding Points
RULE OF THREES

• Each Paragraph:
  • Link to previous paragraph
  • Details
  • Conclude and link to next paragraph
**REFERENCES**

- Make a system and get organized.
  - Bibliographic Software: Endnote, Zotero, Refworks, etc
  - Workshops
  - Librarians
  - The better organized your notes and references are, the easier the writing process can be.
Just get out that first “crappy” draft.

- Nothing throws off the writing process like a blank page.
- Get your words onto paper first and then worry about refining the argument.
EDITING AND REVISING

• Writing Groups and Circles
  • Just like in the writing stages, these folks are going to be a valuable tool to give you fresh eyes on your work.
  • Trade writing with a peer and be ruthless with your red pen.

• Step away and come back to it later
  • …but not too much later.
KEY POINTS

• Keep the matrix in mind.

• Communication and the Committee are Key.

• Structure is your new best friend (outlines and calendars).

• You’re not alone!
THANK YOU

QUESTIONS?