Analysis of Data and Development of a Conceptual Schema

1. The analysis is the heart of the essay. This is the unique part—the part that enables you to make an original contribution.

2. The focus in these guidelines is on qualitative coding.
   A. Data treated quantitatively tend to have specific procedures already developed for processing them.
   B. This coding can be applied to videotaped observations, interviews, written texts, works of art, visual images—anything an artifact (artifact = anything that someone can interpret).

3. Go through the data looking for things pertinent to answering the research question.
   A. The specificity and concreteness of the research question tell you what you are looking for. They suggest what pieces need to be coded and what to leave by the wayside for another question.
   B. Write a paraphrase, a phrase, a heading, or a label that describes what you are seeing in that passage or chunk or quote that is most important.
   C. The label does not have to be very precise at this time—it is just a general indicator—and you probably will not use it later.
   D. There might be interesting data that do not have any bearing on your study. Put those in a “promise file”—a file where you keep ideas for projects you want to do later.
   E. Do not bring in other theories at this point. Stay tied to your data.
   F. Passages of text are coded either because of intensity or frequency.
   G. You might tend to code according to what you want to find. Remember that you will have to explain how you came to your claims and conclusions from the data—they have to make sense to someone else.
      1. Code the data as a complete novice—someone with no extra knowledge, assumptions, or values besides what is in the data.
      2. Code with skepticism: Does it really say this? Could I explain this to someone else using only this text?
   H. Label the coded material with labels that do not come only from the literature review or the research question. New observations and insights should produce new labels.
   I. There is no one right story you should get out of the data. Analysis is co-creating a story with the data, not discovering a story.
Writing the Literature Review

There are two problems scholars tend to encounter when surveying the literature for a new research project: One is that the literature review seems overwhelming because there is so much literature to cover that you have no idea how to begin. A second problem is keeping track of everything you have read so that you can synthesize it all. You may find that you have highlighted passages or post-it notes on virtually every page of your books and articles with no system for bringing it all together. The following system will make writing the literature review efficient, manageable, and concrete. It can be used either before or after you have developed the research question for your project.

Step 1: Coding the Literature

You have at least a vague sense of the literature you want to review, and you've gathered it—you have your books and articles. Sit at your computer. Take each book or article in turn. Read it, looking for the following:

- Ideas that will help your thinking about your project
- Ideas that have a direct bearing on your project
- Claims and findings that support or disagree with your ideas
- Definitions of terms
- Calls for follow-up studies relevant to your study
- Ideas for working out or refining your method
- Gaps you notice in the literature.

When you find such an idea, take notes about it on the computer. Type in single space either a direct quote or a summary of the useful idea. Include the source and page number for each passage or each note. Double or triple space between notes.

If you are not a fast typist, an alternative method is to mark the relevant passages with a pencil and then photocopy them. In the margin of each photocopied passage, write the page number and source.

Using this system, a book might take 45 minutes to read and code. How is this possible? Do not read every word. Use all the clues the book or article provides to discover what is relevant for you—table of contents, chapter-titles and headings, and the index. For each chapter that seems relevant to your project, ask: "Is this chapter relevant for my study?" If it is not, skip it.

When you come upon a relevant chapter or article, go heading by heading and subheading by subheading and ask: "Is this section relevant for my study?" If it is not, skip it. When you find something relevant, type it into the computer.

Do not read or type in the complete essay of someone or the entire history of a theory or all of the critiques of a theory—type only those ideas that are relevant to the project you have conceptualized.

This is what you do your first time through a book or an article. Do not read it first and then do this kind of reading and coding.

Step 2: Creating Piles

Print out two copies of the notes you took during the coding of the literature. Keep one as it is (for future reference). Cut the
notes on the other copy apart. Each note will be on a separate slip of paper. If you are using photocopies, cut out each relevant passage so that it is one slip of paper.

Sort the slips of paper into piles according to topic. Put everything that is about the same topic in the same pile. For example, you might put slips of paper in one pile that have to do with power and those that have to do with gender in another. If a slip (or photocopied passage) contains information that might fit into more than one pile, make a duplicate slip and put it in both piles. Do not make a judgment at this point about what is going to happen to these piles and topics. Just sort.

After everything is sorted into piles, check to see if all the slips of paper in each pile are relevant to the topic of that pile. Throw out the tiny piles. Combine piles that need to be combined because they are about the same topic. When you are convinced that what you have in front of you are, in fact, the piles, give them names or labels that express what all the things in that one pile are about.

Step 3: Creating a conceptual schema for the literature review

Make a list of the pile names or labels on a separate piece of paper. Cut the items in that list apart. Play around with the items to see how they might be organized into a conceptual schema for the literature review. This is easy to do because you can physically rearrange the items in many different ways.

Each literature review is different, but you might find that your conceptual schema is organized around principles such as:

- Factors that contribute to a particular phenomenon.
- The substance of the literature review isn’t your idea, but how the literature review is presented and the connections among the pieces of the literature review are your ideas. The purpose here is for you to discover those connections. The conceptual schema is an explanation for what you see in the piles.
- Creating the conceptual schema for the literature review this way insures that you do not organize the literature in the way in which you may be inclined—chronologically. It forces you to organize according to how the pieces of the literature are talking to one another, which helps make a more accessible, more readable presentation.

Step 4: Writing the Literature Review

Write your way through the piles. Take each pile in the order in which it occurs in your conceptual schema and sort the notes/stripes of paper within that pile. Take each slip of paper in turn and write about it, filling in with transitions and connections.

You will not use everything in every pile. You will throw some things out. You will move some things from one pile to another. You might even decide that you need to refine the schema. That is easy to do—you simply move the slips of paper from one pile to another.

When all the piles are gone, you have finished the literature review.

Sonja.Voss@adlener.edu
WWaters@mail.norwescoti.edu
Formula for Writing Qualitative Articles

1. Introduction (between 1 and 5 pages):
   - Begin by stating your theoretical research question.
   - Very briefly refer to the literature that leads to your research question.
   - Show why this is an important question.

2. Introduction of data (1 paragraph):
   - Flow into the data you will use to answer the research question.
   - Explain why these data are appropriate for answering the question.

3. Overview of data (1 paragraph to a couple of pages):
   - Give an overview of the data so people who are unfamiliar with it will have a sense of it (this might include historical context).

4. Overview of analysis (1 paragraph):
   - Provide a brief overview of your analysis or your analytical categories.
   - Preview findings that will answer your research question.

5. Presentation of analysis (the bulk of the article—15–20 pages):
   - Present your analysis, using as a structure the major findings or the major categories that emerged (i.e., conceptual schema).

6. Conclusion (3 to 5 pages):
   - Provide the theoretical answer to your research question.
   - Tell the contribution you are making to the field.
   - Do not simply summarize your findings.
   - Transcend your data and answer the research question theoretically.

7. General tips:
   - Use a flowing writing style. Think of the article as a story you are telling.
   - Suggest confidence in your ideas by how you present them.

Sanja K. Foss
May, 2003
Sanja.Foss@endicott.edu
Eleven Steps of the Dissertation Process

Step 1: Conceptualizing the Project
This is the heart of the process. This is where you and your advisor map out an overview of the entire process.

Step 2: Engaging the Literature
Collect the relevant literature in the areas you identified with your advisor in the conceptual conversation.

Step 3: Writing the Literature Review
Review the piles of notes taken during the coding of the literature to create a conceptual schema for the literature review.

Step 4: Writing the Rest of the Proposal
Build the rest of the proposal using the research question and the method that already have been identified in the conceptual conversation. The literature review, a section on limitations, and a section on significance are added at this point.

Step 5: Revising the Proposal
Revise according to your advisor’s feedback. The revisions should not be major because the proposal follows the conceptual plan worked out earlier.

Step 6: Defending the Proposal
Your advisor distributes the revised proposal to the rest of your committee with a cover letter endorsing the proposal as “ready to defend.”

Step 7: Collecting Data
Collect data according to the plan mapped out in the conceptual conversation. After the data are collected, code them based on the research question.

Step 8: Analyzing the Data
Analyze the coded data to develop a conceptual schema. This analysis is the heart of the dissertation. This is the unique part—the part that is most representative of the writer of the dissertation.

Step 9: Writing Up the Analysis
In a process similar to writing up the literature review, write through the piles of the sorted data to write the analysis chapter or chapters.

Step 10: Distributing the Dissertation to the Committee
After your advisor has approved it, distribute clean copies of the entire dissertation to the committee for review.

Step 11: Defending the Dissertation
Ask your advisor what to expect in a defense—what will happen, what will be expected of you, and strategies to use in answering questions.

Sonja K. Foss and William Waters, 2003
Sonja.Foss@cudenver.edu
wwaters@missouri.edu
An Outline for Dissertation Proposals

A dissertation proposal includes the following, though not necessarily in this order:

1. **Introduction: An invitation into the dissertation**
   - Focus on the theoretical debate to which the dissertation will contribute.
   - Do not deal with the data that will be collected and analyzed in the dissertation—stay focused on the theoretical discussion.
   - Explain your interest in the topic.
   - 3-5 pages

2. **Research Question or Statement of the Problem: The guiding question or purpose of the project**
   - The question should identify a theoretical construct and the contribution you are making to an understanding of the theoretical construct.
   - The theoretical construct should be specific enough so that it is concrete, specific, and not too large—it can be identified and recognized easily.
   - One good question is better than a multitude of unconnected sub-questions.
   - 1 page

3. **Literature Review**
   - Use the key terms of the research question to create the areas of the literature review.
   - Organize the literature around a conceptual schema derived from the literature itself.
   - Do not give all the details about each study discussed; focus only on those ideas from each study relevant to thinking on the current project.
   - Do not include literature related to the method to be used in the dissertation (put that into the discussion of the method).
   - There may be areas of literature that need to be acknowledged but that are not directly relevant to the study. Dispense with these areas of literature with one- or two-paragraph summaries of this literature and give a sample study or two of each.
   - 10-30 pages, depending on amount of literature to cover

4. **Method**
   - The method section often is divided into two sections: “Data” and “Procedures.”
   - In the data section, discuss what the data are and justify their selection for the study.
   - In the procedures section, discuss how the data will be collected and analyzed.
   - The method section may include a discussion of the theoretical and/or ideological assumptions informing the study.
   - 5-10 pages

5. **Limitations: Discussion of the restrictions or qualifications the writer acknowledges concerning the study**
   - Discussion of limitations should not be so extensive that the entire study becomes seen as suspect.
6. **Significance of the Study: Discussion of the importance of the study and the contributions it will make**
   - Aim for 3 or 4 contributions.
   - 1-2 pages

7. **Outline of the Study: Summary of the chapters of the dissertation**
   - Lay out what the chapters in the study will be.
   - 1/2 page

For quantitative dissertations, the proposal becomes the first three chapters of the dissertation (Chapter 1: Introduction, Chapter 2: Literature Review, and Chapter 3: Method), and the other two chapters are Discussion and Conclusion.

For qualitative dissertations, the entire proposal becomes the first chapter of the dissertation, and the number of chapters depends on the kind of analysis being done and the findings.

*Sonja K. Foss and William Waters, 2003*

Sonja.Foss@udsdenver.edu

wwestern@mail.nvmissouri.edu