Strengthening Literature Reviews through the use of Concept Maps and Content/Form/Function Outlines

Introduction
The course of interest for my project was the Methods of Research course. This is a small course (around 12 students) with a heavy workload and a significant amount of writing supplemented by regular feedback and review of work by me (See attached syllabus). The purpose of the course is to give students an overview of the various methods they might employ in the practice of social research. I use a variety of techniques to accomplish this task, however, one of the major components of the Methods of Research course is a research proposal.

The research proposal is written over the course of the semester by scaffolding assignments that will ultimately become the final research proposal. It is the most demanding assignment of the semester and accounts for a large percentage of the final grade. While the research proposal is not particularly difficult, various parts of it can be overwhelming for students if they were left alone to finish the proposal. The most difficult section of the proposal is the “literature review” section. Below is a brief description of the course as it is and my own attempt to improve the literature review component of the research proposal.

Goals of the Course
A core goal of the course is that students show they are able to connect their research proposals to a body of work through the literature review. This means they must be able to collect, read, evaluate, and comprehended published research on a their topic and effectively discuss the relevance of this literature to their topic in a literature review. To facilitate them in their writing, I provide them with several models of literature review “styles” and ask them to model their own literature reviews after one of these styles. In short, they are not allowed to simply write “article summaries” for their literature reviews.

Student Expectations
The students write a 5-7 page literature review on their topic using at least 6 academic sources. In the past, this meant that they would submit a draft of their literature reviews in week 5-6 and I would provide ample feedback in the form of written and/or typed comments attached to their papers. The assignment I give them stresses that they model their literature review on one of several types of literature review styles I provide them with in a handout.

I grade the literature reviews based on the following criteria:

- Clarity of writing
- Whether or not they followed one of the strategies in the assignment.
- Appropriateness of literature
- Focus on their topic

I also provide the students with a number of opportunities to improve their literature reviews over the course of the semester. These include:
a. Modeling good examples of a literature review from previous classes  
b. Parsing out commonalities in examples from published literature  
c. Peer review of writing  
d. Sequencing of assignments so they build on the ideas they touch in their literature reviews  
e. Final revision is not turned in until the end of the semester

**Strengths and Weaknesses**
My biggest strengths are that I provide a lot of feedback on their initial literature reviews and because they do not turn in their final revised literature review until the end of the semester they are able to incorporate a lot of other comments from their other assignments. Unfortunately, at times this is a weakness because some students will simply set their literature reviews aside and not revisit them until the final week of class when they are due.

**Intervention**
I began my approach to changing the way students write a literature review by evaluating what students thought was the most challenging part of the process. The most difficult part of the process was not that they lacked the skillset necessary to identify scholarly articles or to locate relevant articles, but instead that they didn’t really know where to begin the writing of the literature review. More importantly, they didn’t know how to organize the actual literature review.

Students were able to identify how other literature reviews were organized and even did a good job identifying different styles of literature reviews. However, when it came time to organize their own literature reviews they were lost. In the end, I decided that what the students needed most was a good outline of their literature reviews in front of them before they began the writing process.

**Content/Form/Function Outlines (CFF)**
The first task I assigned students was a content/form/function outline of their literature. The CFF had to be completed in order to complete the next section. Students simply identified 6 articles relevant to their research questions and answered a series of questions associated with each article based on the CFF (See attached assignment)

**Concept Maps**
The next intervention was the incorporation of a concept map. The goal of a concept map is to create a visual representation of connections between concepts. Because students have already learned about what it means to conceptualize ideas and identify research articles based on the conceptualization of their research questions, and because they had already completed the CFF, I felt a concept map would lend itself to this course. The assignment was simply to place their research question (something they must get approved before continuing with other assignments) in the middle of the paper and then to identify different concepts from the literature that they believe are relevant to their research question, place them in various
locations on the paper and show how they are connected to each other using a concept map (See attached assignment).

**Outcomes**

**Successes**

One of the biggest successes of the intervention was that students who fully completed the CFF and Concept Map did much better on their final literature reviews than those who did not fully complete their CFF and Concept Maps or did not take the assignment seriously (there was no credit for the assignment). Their literature reviews were better organized and were much easier to read than those who did not follow the assignment guidelines closely.

Students who did well reported that they found the CFF and Concept Map to be useful assignments. They were especially appreciative of the CFF as they felt it gave them a guideline for reading literature. There was less appreciation of the CFF but a number of students reported that it did help them visualize the relationships between different concepts and to see how the literature fit together.

**Weaknesses**

There were two weaknesses with the CFF and Concept Map assignment. First, students who did poorly on these assignments typically did a bad job because they were still unsure what a literature review should look like. They were able to identify different components of the literature review in the classroom environment but when it came time to organize their own thoughts they were not able to see the commonalities between their literature and other examples of literature reviews.

Secondly, the CFF was not very useful if they had weak concepts and attempted to plug them in to their concept map. This was primarily because they had limited time to really develop their different concepts in a way that allowed them to fully understand their relationship to each other.

**Possible Changes**

Because the literature review is such an integral part of writing a research proposal, I am committed to improving the literature review portion of the research proposal. One of the changes I would like to make to this assignment has more to do with the preparation for the assignment. Ideally, I would like to model more papers and explore how different concepts are conceptualized in published literature and how literature reviews are organized.

I would also like to make a minor tweak to the assignment in the future whereby we make a concept map and CFF of a current article. I feel this may allow students to see how a research proposal is written by deconstructing it in to its constituent parts.

In the end, I felt this was a useful exercise that will ultimately improve the writing of my students. I hope to incorporate the above changes in to the course assignment in the coming semester.