EDU 738 Research Across the Curriculum

Assignment #4: Research Plan: Review of Research & Methods Sections (Group)
Due: April 17th

The purpose of this assignment is to have you 'back up' a bit so you can design a coherent and defensible research plan based on a review of the research literature and a description of the methods you will be using. You have already provided a summary of your methods in your IRB application but that needs to be expanded.

Review of Research Literature Section:
Typically scientific research, both qualitative and quantitative, builds on the work of others. So the review of research is the place where you tell the reader what has already been done in relation to the problem statement and what still needs to be done that will be addressed, at least in part, by your research study. The phrase "what has been done" does not just refer to research findings and conclusions but also, **and in most cases, to the methods and procedures that have and have not been used.** Thus, a well constructed review of research paints a clear picture for the reader of where your proposed study fits into prior research while also convincing the reader that your study and its methods is a logical next step based on current knowledge.

If you were doing a dissertation, the expectation for the review of the research literature is that it be extensive and semi-exhaustive. The good news is that this is NOT the expectation for our course! I do expect you to prepare a coherent review of the literature that makes the most of the research studies you have read so far. (In a few cases, you may have to do some more reading in order to put something coherent together.)

At its core, the review of the research literature should contain the following components:

1. An opening paragraph that clearly lays out the structure and themes to be covered in the literature review
2. An organized series of paragraphs that are not merely abstracts of individual articles but an interrelated series of statements that elaborate the themes identified in the opening paragraph..
3. One or more closing paragraphs that sum up the literature review and make an explicit connection between the prior research and the proposed research study.

Here is a link to a very good guide about how to prepare a review of the literature. This guide was developed at the University of North Carolina.
http://www.unc.edu/depts/wcweb/handouts/literature_review.html Below, after the rubric, are some examples from students who have taken EDU738 in previous semesters. Finally, here is a link to a student's research review done at San Diego State University. (This is more extensive than I am expecting from you but it should give you an idea about how the parts of a review fits together:
http://edweb.sdsu.edu/courses/ED690DR/Examples/LitRev/Levy.htm

On the EDU738 website there are a few excerpts of EDU738 students' review of the research literature. Here is the link:
http://rockyshwedel.ipage.com/edu738assignments/assignment4/sampleofstudentwork_lit_review/student_work_review_of_lit.html

Methods Section:
You have identified a problem that is calling out to be solved or at least addressed in some way. You have read what some other researchers have done in the past in relation to this topic. Based on your reading and experience, you have generated either a research question(s) ir hypothesis(ses). So now your task is to develop a set procedures that will enable you to gather the data you need to answer your questions or test your hypotheses. The section of the research plan that contains this set of procedures is called the Methods section.

Thus, your task in this section is to describe the methods you would use for your proposed study. As you prepare your methods section keep in mind the fact that the reader will be asking her/himself if the methods will be adequate to address the research question(s)/hypothesis(ses). Thus, for example, if you are interested in determining the impact of a new math series on achievement, your methods section has to very clearly lay out the data you will be colleting and how the data will help you determine if the new math series was useful. Some examples of methods sections are shown below this assignment.

In a quantitative research study, the methods section contains the following elements:
1) Method
    a) Participants
        i)   Sample size and relevant background characteristics;
        ii) Explain how you would 'recruit' or identify participants;
        iii) Include the informed consent letter in the appendix.)
        iv) Indicate that limitations may result from the particular sample you would probably use for your study.
    b) Instruments
        i)   If you use a survey, interview, or test, indicate the content, # of items by item format, any reliability or validity information, and where the items themselves or ideas for the items came from;
        ii) If you are using an observation instrument describe the format and the 'things' you will be looking for;
        iii) Include samples of your instruments in the appendix and, if on the web, e.g., a SurveyMonkey survey, include a viewable link. (Note if you are using SurveyMonkey or some other online survey tool, you will have to actually set it up to 'collect data' in order to create a viewable link.)
    c) Design (e.g., causal comparative, experimental, or descriptive study, etc. If relevant, identify the independent and dependent variables)
    d) Procedure (This will vary depending on the nature of your study)
        i)   Describe the procedure from the participant's perspective, e.g. how long will it take, what will the participant be doing, etc.
        ii) If it is an intervention study and/or an observational study, indicate what the researcher will be doing; over what time frame will the observations take place; if there is any equipment needed for the observation describe it.
    e) Data Analysis
        (Since this is not a statistics course, I am only looking for a general statement, please contact me for guidance on this component of your plan.)
    f) Time Schedule (and budget if relevant, but probably not for your study)

Please keep in mind that preparation of the research plan is in reality an iterative process. As you work on your review of the research literature and methods sections, hopefully your understanding of the methodological issues and the generalizability of results will become deeper. Thus you may find that you want or need to change your draft problem statement, research question(s) and/or hypothesis(ses). And this could mean that your data collection instrument would change too. That's OK but by the time you turn in this assignment you need to be very clear about where your research plan is headed.

Submit your group's Review of Research and Methods as a GoogleDoc and send me a note to clearly indicate that you have shared a version that you want me to review and grade. Remember to name your file with the assignment and the last names of each member of your group, e.g. "*Assignment_#4_Smith_Jones_&_Brown_final*" or "*Research_Plan_ Smith_Jones_&_Brown_final*".

Grading Procedures:
   (1) This 4th assignment will be worth 20% of your final grade for this course. The review and methods sections will be evaluated on the basis of the attached rubric.
   (2) You may be wondering about the expected length of the review of research. Given the limited scope of reading you have probably done on your particular topic, a 2 to 4 page review is probably adequate. However, I don't look at length but rather I focus on the elements that are described in the attached rubric!
   (3) You may be wondering about the expected length of the methods section. Each element should take no more than one or two paragraphs.
   (4) If you have any questions, please contact me.

EDU738:
Review of the Research Literature & Methods Sections Rubric

	Unacceptable/Needs Improvement B-/C+ or Below	Proficient B+/B	Exemplary A/A-	Comments
Introductory Paragraph	• The purpose of the review is hazy or not given • There is no clear indication of the structure or flow of the review. • The logic of the review is either unclear or unlikely to provide the reader with an understanding of prior research.	• Identifies the purpose of the review • Provides an advanced organizer as to the content and sequence of the review. • The logic of the review may not be the optimal way to cover the prior research	• Identifies the purpose of the review • Provides an explicit advanced organizer as to the content and sequence of the review. • The logic of the review sounds like an appropriate way to cover the prior research	
Body: Flow of the review	• The review appears to have no direction, with subtopics appearing disjointed.	• There is a basic flow from one section to the next, but not all sections or paragraphs follow in a natural or logical order as presented in the introductory paragraph.	• The review goes from general ideas to specific conclusions. Transitions tie sections together, as well as adjacent paragraphs. • The review follows a logical order as presented in the introductory paragraph.	
Coverage of content	• Major sections of pertinent content have been omitted or greatly run-on. • The review focuses almost exclusively on results with little or no mention of methods. • The topic is of little significance to the educational/training field.	• All major sections of the pertinent content are included, but not covered in as much depth, or as explicit, as expected. • The review covers both results and methods but there is no substantive discussion of the pattern of methods	• The appropriate content in consideration is covered in depth without being redundant. • The review covers both results and methods substantive discussions of the patterns both findings and methods across	

	Unacceptable/Needs Improvement B-/C+ or Below	Proficient B+/B	Exemplary A/A-	Comments
		across research studies. • Significance to educational/training field is evident.	research studies. • Sources are cited when specific statements are made. The significance of the cited studies is unquestionable.	
Clarity of writing and writing technique	• It is hard to know what the writer is trying to express. Writing is convoluted. • Misspelled words, incorrect grammar, and improper punctuation are evident.	• Writing is generally clear, but unnecessary words are occasionally used. • Meaning is sometimes hidden. • Paragraph or sentence structure is too repetitive.	• Writing is crisp, clear, and succinct. The writer incorporates the active voice when appropriate. • The use of pronouns, modifiers, parallel construction, and non-sexist language are appropriate.	
Conclusion: A synthesis of ideas and hypothesis or research question	• There is no indication the author tried to synthesize the information or make a conclusion based on the literature under review. • The conclusion does not connect the review to the proposed research.	• The author provides concluding remarks that show an analysis and synthesis of ideas occurred. • Some of the conclusions, however, were not supported in the body of the review. A connection between the review and the proposed research is provided.	• The author was able to make succinct and precise conclusions based on the review. Insights into the problem are appropriate. • Conclusions and the connection to the proposed research are strongly supported in the review.	
Citations: Proper APA format	• One or more citations for statements included in the review were not present.	• All appropriate citations within the body of the review were presented. Some formatting problems exist, or components were	• All needed citations were included in the review and all were encoded in APA format.	

	Unacceptable/Needs Improvement B-/C+ or Below	Proficient B+/B	Exemplary A/A-	Comments
		missing.		
Sample	• The description of the target sample is vague or incomplete. Thus a researcher would be unable to decide if the target sample was appropriate to address the research questions/ hypothesis generated for this proposed study.	• Description includes all <u>relevant</u> information about the sample including size & background characteristics • Procedures for identifying and 'recruiting' participants is clearly explained and follows appropriate ethical guidelines. • The characteristics of the target sample are appropriate for the research plan.	• Description includes all <u>relevant</u> information about the sample including size & background characteristics • Procedures for identifying and 'recruiting' participants is clearly explained and follows appropriate ethical guidelines. • The characteristics of the target sample are appropriate for the research plan. • Limitations of the potential sample or potential difficulties enrolling or keeping participants involved are described	
Instrument s	• Information about the instruments is incomplete or incorrect. • Either the instruments are not of sufficient quality to use for data collection or this can not be determined from the description provided.	• The instruments are clearly described. • Rationale for the instrument design is clearly explained. • If available, reliability and validity information are provided. • Samples or links to the instruments are	• The instruments are clearly described. • Rationale for the instrument design is clearly explained. • If available, reliability and validity information are provided. • Samples or links to the instruments are	

	Unacceptable/Needs Improvement B-/C+ or Below	Proficient B+/B	Exemplary A/A-	Comments
		provided. • The data collection instruments are capable of capturing the data needed to address the research questions/ hypothesis generated for this proposed study.	provided. • The data collection instruments are capable of capturing the data needed to address the research questions/ hypothesis generated for this proposed study. • The instruments are feasible to administer and analyze.	
Design	• The design is not in line with the proposed research study.	• The design is appropriate for the proposed research study. • If relevant, the independent and dependent variables are identified.	• The design provides a new way to examine the issue and has the potential to new insights into addressing the issue. • If relevant, the independent and dependent variables are identified.	
Procedure	• Data collection and, if relevant, implementation procedures are not clearly described and/or key details are omitted.	• Data collection and, if relevant, implementation procedures are clearly described so that the study could be replicated by other researchers. • The procedures are logistically feasible and do not place an unreasonable burden on participants. • Successful	• Data collection and, if relevant, implementation procedures are clearly described so that the study could be replicated by other researchers. • The procedures are logistically feasible and do not place an unreasonable burden on participants. • Successful	

	Unacceptable/Needs Improvement B-/C+ or Below	Proficient B+/B	Exemplary A/A-	Comments
		implementation of the procedures is likely to enable the researcher to gather the necessary data.	implementation of the procedures is likely to enable the researcher to gather the necessary data. • The procedure involves a new way to capture data that is likely to be applicable to future research studies or is uniquely tailored to the constraints imposed but this particular research plan.	
Data Analysis	• The proposed data analyses are unclear or not relevant to the proposed research study.	• The proposed data analysis procedures are appropriate for the data that are to be collected and the research question(s)/ hypothesis(ses) to be examined in this study.	• The proposed data analysis procedures are appropriate for the data that are to be collected and the research question(s)/ hypothesis(ses) to be examined in this study. • The analytical procedures are feasible and well within the expertise of the researcher. *(This is not applicable for your research proposal)*	
Time Schedule	• No timeline provided or the tasks and events are not organized appropriately.	• The time allocated for various tasks is appropriate and the sequence of the tasks makes sense. • The project is likely to be	• The time allocated for various tasks is appropriate and the sequence of the tasks makes sense. • The timeline is efficient while still	

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		finished within the proposed timeline.	providing a cushion in case a particular phase takes longer than expected.	
Overall:				

Note: This rubric is based almost entirely on a rubric developed by Donn Ritchie for a Masters level course, Education 690, at San Diego State University
The original rubric can be found at:
http://edweb.sdsu.edu/Courses/Ed690DR/grading/literaturereviewrubrique.html , retrieved January 9, 2008.

EXAMPLES OF EDU738 STUDENT WORK: REVIEW OF THE RESEARCH

Here is an example of one group's introductory paragraph that points out the two types of research studies that are going to be examined in the literature review:

 "Significant research in the field of education has been devoted to factors that are positively correlated to academic success. With the current focus on standardized testing and academic achievement for all students, recent research has focused on variables that are predictors of academic success. Two factors in particular that have been extensively researched are level of physical fitness and short-term memory abilities…."

Here is an example from the body of the literature review where the group makes a connection with a previously discussed research study but indicates how this one examines the topic from another angle:

"Another study looked at similar variables, but from a pre-entry perspective in relation to online learning. Dupin-Bryant (2004) sought to determine a correlation between online retention and 6 pre-entry variables: cumulative GPA, class rank, number of previous courses completed online, searching the Internet training, operating systems/file management training and Internet applications training. The results of this research study suggest that…"

Here is an example from one group's closing paragraph where they quickly sum up the findings and limitations of prior research and then go on to indicate where their study fits in:

"…With documented changes in how people can choose to read and possible changes in how they prefer to read, the topic of reading preferences is an area that requires more research. The data shows [*sic*] people are using a greater variety of media options, but what is absent from the research is data that reveals what media people are using for what type of reading activity (pleasure, research, education assignments, etc.). Furthermore, the concept of literacy has yet to be redefined in response to media changes over the past twenty years. Data revealing a decline in reading is questionable considering the omission of digital media in the definition of reading for the study. For this research study, we include digital media in the definition of reading literacy as we seek to identify whether participants prefer print resources or another form of media to gather information."