Proposal, Research and Graduation Checklist

Write research proposal-

I. Determine an area of research interest (MED 6000, MED 6080, or MED 6085)
   A. Formulate a question that will guide your review of literature
   B. Locate research articles and other relevant, scholarly materials related to your research question (find current research within last 5 years)
   C. Arrange your research articles in a logical manner and write your literature review for example:
      1. Arrange by topic (focus of research article found) to create categories of findings
         a. Arrange by instructional method used in research
         b. Arrange by instructional outcomes (findings of research)
      2. Arrange by event in time (historical timeline to establish a trend)

II. Write a summary of what the literature that was reviewed indicates as it related to your initial research interest
   A. What does the literature indicate needs further research?
   B. What does the literature indicate has never been researched?

III. Write the purpose and objectives
   A. Based on what you found in the literature review (refer to summary), write the purpose statement for your intended project. Potential MED research projects may include:
      1. Replication of a study based on recommendations of the initial researchers for further study
      2. A unique research question based on an area identified in the literature review
   B. Based on the purpose of your intended project, write research objectives.
      Research objectives are specific questions derived from your research purpose question that you wish to answer through research. Limit the number of research objectives so that each may be thoroughly investigated in the time range allowed for your research (a trimester, a semester, a term)
C. Determine your research method (don't write your methodology yet)
Select the method based on the nature of the research question(s)/objective(s). There should be alignment between these two parts. The method needs to be designed to answer the research question(s)/objective(s).

1. Quantitative methods are used when you are trying to generalize your findings to a larger population. You must be able to manipulate an independent variable and randomly select or assign your sample who is representative of the type of student population to which you wish to generalize the findings. This generally requires statistical analysis such as measures of central tendency (mean, mode, median) and group mean comparisons such as t-tests or analysis of variance (ANOVA). There are many variations within quantitative methods including true experimental, quasi-experimental, and single subject. Even within these, there are variations.

For example, if you are trying to find out if an intervention (such as an innovative way to teach reading or math) will create statistically significant increases in retention and application for a 4th grade level student, you will need to study groups of 4th grade students.

2. Qualitative research methods are used to understand an area in depth from an individual or specific group perspective. It does not involve statistical analysis. Qualitative research methods are based on observation of phenomenon in a natural environment without manipulation of variables. The goal of qualitative research is to determine why something occurs, when something occurs, what factors are interacting with each other to create a learning event, etc.

3. Curriculum projects address the issue identified in the literature through the development of original curriculum or products including lessons, assessments, information for teachers or parents, study guides, etc. Curriculum projects include review and/or evaluation by experts in the field.

D. Identify an appropriate population to study

1. Thoroughly describe the population to be studied (contextual factors such as race, gender, socioeconomic status, learning styles, IEP targeted areas to be studied, etc.)

2. Frequently, the population to be studied is your students. This immediately creates questions of bias. Identify potential conflicts of interest.

3. Subjects may be reviewers in curriculum projects.

E. Write your methods section to describe exactly how you are going to conduct your research

1. State what kind of methods you are going to use
2. Create a time line of research events

3. Describe each data gathering method you will be using and when you will use it. If using a mixed method research approach, justify the methods you are using and how they interact with each other

IV. Present your proposal to your committee chairman for suggestions and approval

You should talk to your committee chairman frequently through the process of reviewing the literature, determining your research purpose and objectives, and identifying your methodology. (MED 6085) You may be directed to talk to other members of your committee for questions about research content or research methods. Make sure there is a completed Program of Study form in the file and that you and the chair have signed this or will sign it at the proposal meeting. It is located in your file and stored in the MED Office

A. Complete all requested changes in your proposal that were suggested by your committee chair (and members of your committee if you have requested their assistance in writing your proposal)

B. Obtain permission to give your formal proposal to your committee from your committee chairman

You should not give your committee the formal proposal until your chair has authorized you to do this. Your chair is responsible for making sure your proposal is in proper order and ready to be reviewed and accepted for your research. This is a contract between you, your committee, and the MED program.

C. Schedule a date when all of the members of your committee can meet with you to discuss your proposal. Give at least one week lead time before the meeting, more if possible, to allow all members to read your proposal and come prepared to discuss it with you.

Have the committee sign the signature page and student's file. Student needs 2 copies of the signature page and the original is placed in the student's file.

D. Enroll in MED 6091

The signed signature page from the proposal is required by the first meeting of this class.

Complete portfolio and present during this class.

Create a power point, Prezi, or other form of presentation and practice presenting to groups of students during this class.

Make a time line from this point until completion. Have chair sign. Hand in to instructor.

Evaluate the MED program.

E. Apply for graduation at the Graduation Office or through Weber State University homepage (Click on graduation).

V. Complete IRB approval
A. IRB approval is necessary and includes both obtaining the CITI approval from the CITI web site as well as completing the IRB protocol proposal found on the IRB web site (www.weber.edu/IRB/) BOTH must be completed before you submit your IRB request to Dr. Gowans/Williams.

Paperwork required for IRB: 1. Completed IRB proposal; 2. Signature page with signatures of PI (MED student researcher) and chair (signs where department chair line is located); 3. All instruments; 4. CITI certificates for the PI and chair; 5. Informed consent document adjusted to the study; 6. Mentor document signed by PI and chair; 7. Copy of the signature page from the proposal with signatures. Submit through www.weber.edu/IRB/ under Dr. Gowans/Williams' name or directly to lgowans@weber.edu/nataliewilliams@weber.edu

B. Write any letters to obtain permission for doing research in a District or other site where you will be conducting research. Permission must be obtained from the IRB application submitted and from the District research supervisor before you may proceed with your research. If you are uncertain who to contact at the District office, ask your Principal or call the District office and inquire as to who you need to contract to gain research permission.

The District may request a copy of the IRB approval letter you will receive from the IRB that states you have permission from Weber State University to proceed with your research.

VI. After you have received written permission from Weber State University and any other sources where you are conducting research, you may proceed with your research. Do not begin your research until this step is completed because any data gathered before this point is not usable for your research data collection.

Conducting Research

I. After receiving approval to conduct research from your committee and IRB approval from WSU and any site where you are conducting research (District, business, etc), begin your research. If you haven't already, enroll in MED 6091

A. Proceed with your research according to what you have proposed to do in your methodology (timeline).

If you encounter problems with your research design or issues arise related to conducting your research that may derail your research efforts or seriously deviate from your proposed, contact your committee chairman to discuss potential solutions.

B. Gather your data and analyze it
II. Write your research defense document
   A. Rewrite the methodology section to change it to past tense (i.e., "I will ..." should be reworded to "I did ...")
   B. Write your Results/Findings section
      1. Format your findings to clearly answer the proposed research objective/questions.
         a. Use tables to show your data results/findings if you did statistical analysis
         b. Use text tables or other formatting techniques to show what you discovered. If you use text to show your findings, organize your findings by research objective and specific questions you are investigating for each research objective
   C. Write your Discussion section
      Do not restate your findings, discuss your findings
      1. Discuss your findings by research objective. Add references from the Literature Review where appropriate to validate your study’s findings or discuss how your findings are different from the literature review.
      2. Discuss weaknesses of your research. These are listed in Limitations
   D. Write your recommendations for future research

III. Submit your research defense document to your committee chairman. MEET THE DEADLINE YOU SET FOR COMPLETING YOUR RESEARCH. DON'T ASSUME YOU CAN WAIT UNTIL THE LAST MINUTE TO DEFEND YOUR PROJECT.
   A. Revise your defense document based on recommended changes from your committee chairman. Do not schedule your research defense until you have received permission from your committee chair
      Revisions may consume considerable time. Don't assume you can present your research with an incomplete defense document.

IV. Schedule your defense
   Allow at least one week between when you give your defense document to your committee and the actual defense date
   A. Contact the members of your committee to schedule a time for the defense
      1. After you find a time, contact the Administrative Assistant (Melinda Bowers- melindabowers@weber.edu) for the graduate office to schedule a room for your defense
B. Edit and add to the presentation or demonstration you created in MED 6091; the results, discussion, limitations and recommendations.

V. Defend your research

A. Present your power point, Prezi, or other demonstration of your project to the committee.
   Be prepared to answer questions.
   The committee signs the final project's signature pages (original signatures for each book) and the student's file.

B. After your defense, make any needed changes to your defense document and resubmit it to your chairman for final signature

VI. Submit your completed defense document to the MED office for binding

A. Pay for binding your copies
   Make copies (3 required plus committee members and personal copies) of the final document. You will need to make copies of the entire defense document onto acid free paper. Each bound copy will need to have an original signature page that is signed by each member of your committee.

B. Pay for binding at the Main Library Circulation desk. Take copies and receipt to MED secretary. She will clear you for graduation and drop you into 6090 if not already enrolled.

C. If you don't want/need to give a bound copy of your defense document to your committee members or others, submit the electronic version of the completed document to each member of your committee.

VII. Notify MED office that you will/will not attend graduation ceremonies (December 1st for December graduation; April 1st for May graduation)

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