M.Ed., Learning & Technology
Capstone
Job Aid for the CPWT Capstone

Description:
The capstone is the culminating assessment of your WGU master's degree program. This Job Aid is your guide to the completion of a successful capstone project. It explains in general what the capstone is and outlines the essential parts of the project. Make sure you understand the expectations and requirements associated with the capstone project in your degree program.

Introduction:
This job aid has been designed to give you an overview of all of the tasks found in the Written Capstone Report, and to help guide you through the submissions process. Please also visit the Graduate Capstone Community. There may interact with the Community Facilitator if you have any questions.

CPWT M.Ed. Learning and Technology Capstone Requirements
- The instructional unit must be 8-10 hours long and will include the presentation of information, practice, feedback and assessment components.
- The instructional unit must not be about TEACHING SOFTWARE to students.
- The instructional unit must be 80% of your own original work – materials from other sources cannot be the primary source of content and exercises.
- Technology should be incorporated as a tool for learning as presented by David Jonassen in his book, Mind Tools in the technology domain.
- Recent brain-based research strategies will be used to support student learning as identified in Judy Willi’s book in the ID domain.

M.Ed. Learning and Technology Capstone Directions
The capstone is a major culminating project for the masters programs in all colleges of the university. In this project the candidate is expected to demonstrate competence in each of the four domains of the Masters of Education program. The focus of the competencies in the M.Ed –Learning and Technology program is the application of the systematic process of instructional design for creating a technology-based effective instructional program.

Candidates will demonstrate competence in designing and developing instruction that incorporates technology as a tool to promote student learning. A formative evaluation will be conducted on the instructional unit in which you apply research principles and analyze the results. Candidates will identify a real life instructional problem, and develop or modify curriculum using technology to address the problem. You will research both the curricular issues and evaluate the effectiveness of the instruction or training through research-based formative evaluation.

Task:
Candidates will identify an instructional problem that they believe instruction/training will help to solve or improve. Through the use of the instructional systematic design process (ISD) the candidate will conduct analyses and then design, develop, and formatively evaluate an
The instructional program is designed to help solve the identified problem. Candidates will incorporate technology as a tool to help students think and learn more effectively than was often the case without the integrated technology. Candidates will formulate questions to be answered through an extensive review of the literature based on best practices, data collection, and the analysis of data. You will design, conduct, collect data, and analyze the data collected for a comprehensive research project in your field. Come back to this part.

The instructional program should meet the following criteria:

- 80% of the work should be the candidates' own original work (lessons, practice, assessment).
- 8-10 hours of instruction, including the presentation of information, practice, feedback, interaction, and assessments.
- Instruction will primarily be delivered through a hypermedia learning environment which consists of text, sound, graphics, animation, video, and images. The most common hypermedia example is a web page.
- Computer-based tools (i.e., mindtools) will be used to engage students in meaningful learning to help them recognize how to solve problems, comprehend new phenomena, and regulate their own learning.
- The instructional product needs to be exportable.

Preparing for Success

Your capstone experience will be more successful if you plan well. This requires in the first place understanding all capstone requirements. Below “Your Capstone Journey” are the requirements and things to keep in mind as you work through the capstone process. The number of Competency Units (CUs) assigned to the capstone assessments means that it constitutes the work of about three quarters of a graduate term. For this reason, the capstone process is equivalent to a period of 16 weeks. However, capstone work does not always allow for such continuous linear progression. In fact, completing a capstone project within this timeframe would require ideal conditions. For example, one thing that may affect such a schedule is the evaluation of each task. If revisions are required after each initial evaluation, this will add more time to the process. Capstone work cannot be, and should not be, rushed.

Your Capstone Journey

You will not be able to access these tasks in Taskstream until such time as the Capstone Project assessments are locked into your term via the AAV call with your mentor. However, in order to allow you to work on the tasks as needed, they are all found in this document. Only once you actually begin to submit your tasks into Taskstream, however, will an evaluator be assigned to grade them. That evaluator will then be responsible for grading all of the tasks you submit for the assessment. That same evaluator will also conduct the Oral Defense of your Capstone Project.

The Model Capstone Archive

Western Governors University has developed a Model Capstone Archive to display final capstone written work and presentations. When WGU archives your final capstone documents, these will be made available to current students, mentors, and evaluators after you have graduated. You will be able to determine whether you wish to participate in the Capstone Archive by completing a copy of the Capstone Waiver and Release Form (https://web5.wgu.edu/aap/content/model%20capstone%20archive%20release%20state).
at the conclusion of your Capstone Oral Defense Task. By participating, your scholarship and effort at the University will be recognized, and you will have the satisfaction of contributing to the advancement of WGU and its students.

Since your final capstone project is to be shared with the WGU academic community, you will want to make sure that this represents your best work -- rigorous scholarship, research, and pedagogy. WGU has taken great care to ensure that safeguards are in place to guard the academic authenticity and the exposure of sensitive information. When you submit the capstone release statement you agree to voluntarily remove confidential information. This means not only your own personal details and contact information, but also information identifying co-workers, organizations, and their contact information. Here is further information about how your final capstone documents are protected in the Archive (https://web5.wgu.edu/aap/content/model%20capstone%20security%20and%20anonymity%2004-18-11.pdf).

You will want to go to the Model Capstone Archive (https://sites.google.com/a/wgu.edu/model-capstones) to see examples of competent student work in your own program that represents some variety in the way students approach project requirements. Some of the materials housed there are artifacts produced along the way to the final capstone materials so that you can see what is involved during the entire process that you are about to undertake.

**Prospectus Task:**
In this task you will briefly outline the problem that you intend to investigate, describe the participants in your study, and state your research questions. You will then describe the data you intend to collect, and the data analysis you propose to conduct once you have gathered the data. This task will need to be approved prior to your moving forward on the remaining tasks found in the Capstone Project assessment.

A. Provide a brief introduction (*suggested length of 1 paragraph*) that explains the rationale for the proposed project by doing the following:
   1. Present your topic.
   2. Describe the participants in your proposed study, to include demographic information and any additional relevant characteristics of your target population such as cultural factors, learning styles, education levels, prior learning, motivation, etc.

B. Explain the problem and your proposed solution (*suggested length of 3 paragraphs*) by doing the following:
   1. Outline the problem.
   2. Describe possible causes of the problem.
   3. Describe your proposed solution to the problem.

C. Present your research question(s).

D. Describe how you intend to answer your research questions (*suggested length of 3 paragraphs*) by doing the following:
   1. Describe the data you will collect.
   2. Describe the instruments and other methods you will use to collect the data.
3. Describe the data analysis techniques you will use to analyze the data you collect.

Once your Prospectus has been approved, you will need to acquire permission to use human subjects in your project. You will do this by submitting for approval, your proposed “Informed Consent Form,” which outlines that which you propose to do, and which will need to be signed by the participants, or, if they are minors, by their parents or legal guardians. Prior to asking for participant permission, this form must be approved by WGU. You must obtain participants’ permission prior to starting your research.

**IRB Task:**

After your Prospectus has been passed, you will address the issue of Human Subjects in Research. This includes completing an Informed Consent Form that explains how your research will deal with issues concerning human subjects.

**Task:**

A. You will download and complete the [Informed Consent form found here](http://). Then submit it here for review and approval.

   Note: The vast majority of these forms are usually approved, provided they have been filled out completely. However, on occasion, we may require further information from you. In that case, you will be notified, and asked to complete task B, below.

B. Only if the review of the form in task A indicates that further explanation is required, will you be asked to fill out the [IRB worksheet, found here](http://). You do not need to download and complete it now.

Once you have obtained your participants’ consent to be in your study, you will then need to submit the first 3 chapters of your Written Capstone Report. These 3 chapters cover the following topics: 1) an introduction to your topic; 2) an explanation of the problem; and 3) a literature review that summarizes the existing research pertaining to your topic. The idea here is to contextualize that which you intend to study. You need to describe the problem, your intended solution, and cite existing research that supports why you believe that your proposed intervention will be successful. You will also want to detail potential difficulties that others have encountered, and describe ways in which you will avoid similar issues. Your submission will be graded not only for content – that is, have you provided an appropriate level of detail so that reviewers understand what it is you are doing, but also, your submission will be graded against the APA format for formal papers. If you have not already purchased the APA Style Manual, you may wish to do so. Else, here are two useful APA format website you may wish to consult: [http://owl.english.purdue.edu/owl/resource/560/01/](http://owl.english.purdue.edu/owl/resource/560/01/) and [http://www.vanguard.edu/faculty/ddegelman/index.aspx?doc_id=796](http://www.vanguard.edu/faculty/ddegelman/index.aspx?doc_id=796)

**First 3 Chapters (Introduction, Problem Statement, and Lit. Review) Task:**

In this task, you will provide an introduction to the problem that you have identified, and that you intend to research during your Capstone Project. You will also state and provide the context for your research questions, via a review of relevant literature.
A. Provide an introduction (suggested length of 4–6 pages) that explains the rationale for the project by doing the following:
   1. Present your topic.
   2. Explain why you chose the topic.
   3. Discuss why the project is important to your discipline.

B. Explain the problem (suggested length of 3–5 pages) by doing the following:
   1. Outline the problem.
   2. Provide background information of the problem.
   3. Discuss possible causes of the problem.

C. Present your research questions.

D. Create a well-organized literature review of 15–20 professional sources by doing the following:
   1. Outline research for best practices for your topic.
   2. Summarize the professional literature relevant to the topic you have chosen.
   3. Provide a conclusion that interprets how the literature applies to the problem being investigated.

E. Provide your preliminary reference list.

F. Include all in-text citations and references in APA format.

Once this task has passed both the content grading and the APA grading, you may proceed to implement your study and gather your data. Once you have finished doing so, you will need to write up what it is that you did, how you did it, and why you did it that way. After that, you will need to summarize your data, analyze it, and present your results. How does the data you collected allow you to answer your research questions? What additional issues or questions does it raise? You will then reflect upon the project, and make recommendations as to what you might do differently if you were to implement it again in the future. You will then also reflect upon your entire degree program, discuss what you’ve learned, and how you’ll use that in your future endeavors.

Last 2 Chapters (Methodology, Data Analysis, Results, and Conclusion) Task:

A. Discuss the methodology you used for your project by doing the following:
   1. Discuss the evaluation methods and tools you used.
      a. Discuss the reliability and validity of the evaluation methods and tools you used.
   2. Discuss how the integrity of data and data use will be maintained.
   3. Discuss your research design.
   4. Explain your research methods.
      a. Explain why you adopted these research methods.
   5. Describe the participants.
   6. Describe how you obtained any needed permissions.

B. Present the results of your project by doing the following:
   1. Outline how results will be organized and presented.
2. Provide a data-driven general statement of the results.

3. Analyze each set of data.
   a. Create visual aids (e.g., tables, charts, graphics) to display results.

C. Discuss the results of your research project by doing the following:
   1. Provide an overview of the project that restates the general purpose of your research.
   2. Summarize your findings.
      a. Explain how the results of your research were obtained.
   3. Recommend possible solutions to your research problem based on your results.
   4. Discuss implications and limitations of the project by doing the following:
      a. Discuss strengths of the project.
      b. Discuss weaknesses of the project.
      c. Discuss problems you noted with your project.
      d. Discuss any factors that may have skewed your findings.
   5. Discuss how the study could be improved.
      a. Recommend areas of your topic that could be further investigated.
   6. Critique your master’s degree experience by doing the following:
      a. Reflect on your master’s degree experience.
      b. Reflect on how the experience and skills you have gained can apply in your work environment.

D. Develop a reference list of all the references you cited in your capstone report.

E. Create an appendix for your project that includes the following:
   1. Materials and exhibits important to the project that are referenced in the report.
   2. Data-gathering instruments (e.g., surveys, questionnaires).

F. Include all in-text citations and references in APA format.

Once the above task has been passed you are asked to compile the entire Capstone Written Report into a single document, and to provide an abstract that succinctly describes your project in 150 words or less. You will also include, in the Appendices, all of the materials you used in the completion of your project. This includes any curricular materials you developed, any assessments used, survey or interview protocols, etc. You will then be asked to submit a release form that authorizes WGU to use your project as an example for others to reference and as sample student work for accreditation purposes.

**Final, Complete Written Report Task:**
In this task you will create a single document that contains your entire Written Capstone Report, including appendices to contain any curricular materials you designed; any assessments; all data collection instruments and other materials used.

A. Provide an introduction that explains the rational for the project by doing the following:
   1. Present your topic.
   2. Explain why you chose the topic.
   3. Discuss why the project is important to your discipline.

B. Explain the problem by doing the following:
   1. Outline the problem.
   2. Provide background information of the problem.
3. Discuss possible causes of the problem.

C. Present your research questions.

D. Create a well-organized literature review of at least 25 scholarly sources by doing the following:
   1. Outline research for best practices for your topic.
   2. Summarize the professional literature relevant to the topic you have chosen.
   3. Provide a conclusion that interprets how the literature applies to the problem being investigated.

E. Discuss the methodology you used for your project by doing the following:
   1. Discuss the evaluation methods and tools you used.
      a. Discuss the reliability and validity of the evaluation methods and tools you used.
   2. Discuss how the integrity of data and data use will be maintained.
   3. Discuss your research design.
   4. Explain your research methods.
      a. Explain why you adopted these research methods.
   5. Describe the participants.
   6. Describe how you obtained any needed permissions.

F. Present the results of your project by doing the following:
   1. Outline how results will be organized and presented.
   2. Provide a data-driven general statement of the results.
   3. Analyze each set of data.
      a. Create visual aids (e.g., tables, charts, graphics) to display results.

G. Discuss the results of your research project by doing the following:
   1. Provide an overview of the project that restates the general purpose of your research.
   2. Summarize your findings.
      a. Explain how the results of your research were obtained.
   3. Recommend possible solutions to your research problem based on your results.
   4. Discuss implications and limitations of the project by doing the following:
      a. Discuss strengths of the project.
      b. Discuss weaknesses of the project.
      c. Discuss problems you noted with your project.
      d. Discuss any factors that may have skewed your findings.
   5. Discuss how the study could be improved.
      a. Recommend areas of your topic that could be further investigated.
   6. Critique your master’s degree experience by doing the following:
      a. Reflect on your master’s degree experience.
      b. Reflect on how the experience and skills you have gained can apply in your work environment.

H. Develop a reference list of all the references you cited in your capstone report.

I. Create an appendix for your project that includes the following:
   1. Appendices and exhibits important to the project that are referenced in the report.
   2. Data-gathering instruments (e.g., surveys, questionnaires).

J. Create an abstract *(suggested length 120–150 words)* that is self-contained, concise, and
coherent by doing the following:
1. Discuss the problem that led to your research question.
2. Describe the participants.
3. Discuss methodologies for data gathering and analysis.
4. Summarize the results.
5. Propose next steps in relation to the problem.

K. Submit the release form.

Note: Please save word-processing documents as *.rtf (Rich Text Format) files.

Congratulations! Once this final task has been passed, you will be able to prepare for and then schedule the Oral Defense of your Capstone Project. The Oral Defense will consist of your creation of a slide show presentation that outlines your project. The slide show will provide an overview such topics as: the problem you investigated; your research questions; a brief summary of the literature you reviewed; the participants in your study; your methodology; the data you collected; the results of your data analysis; and your conclusion. You will then present your slide show to an evaluator via teleconference. Further details can be found in the Capstone Oral Defense COS, found under link that is the code for that assessment in your AAP.

Feedback
If you wish to provide feedback on this Job Aid, please contact Dr. Jose A. Rodriguez at jrodriguez@wgu.edu.