2024 AP Capstone Research Summer Assignment

Dr. Barton, Steinbrenner High School

NAME: _____

Welcome to AP Capstone Research. This assignment is designed for you to start the course off strong with topics in mind before we start class in August. Selecting a topic takes time and your topic will gradually become more specific over the first semester. I will guide you every step of the way when we meet individually and in class activities.

<mark>SUPPLIES FOR THIS COURSE:</mark> 100-page spiral notebook, highlighters, USB drive or cloud storage.

PART I

<mark>PRINT AND KEEP YOUR WORK. IT WILL BE THE FIRST ITEMS IN YOUR SPIRAL NOTEBOOK</mark>

<mark>Read Chapter 1</mark> "Practical Research: Planning and Design" by Leedy & Ormrod.11th Edition available digitally here:

https://pce-fet.com/common/library/books/51/2590_%5BPaul_D._Leedy,_Jeanne_Ellis_Ormrod%5D_Practical_Res(b-ok.org).pdf

1) Up to this point in your schooling experience, what types of paper/schoolwork have you done that you or teachers have called "research?"

2) Read 19-20 and complete the chart below in a bulleted list.

RESEARCH IS NOT….

3) Read Pages 20 and define the following terms as you read "RESEARCH IS…. "

Define Research –

Define Formal Research –

4) Read pages 20-25 and explain the following steps in the formal research cycle:

Step 1 Research Problem –

Step 2 Goal of Research –

Step 3 Sub Problems –

Step 4 Hypothesis and assumptions –

Step 5 Research Plan –

Step 6 – Collect, Organize and Analyze Data. Explain and define ….

Quantitative Research -

Qualitative Research -

Mixed-Method -

Step 7 – Explain this process after reading.

5) Define Research Methodology –

6) List Research Tools –

7) Define Descriptive Statistics –

Define Inferential Statistics –

8) Read pages 35-37

Define Critical Thinking –

List and describe the forms of critical thinking:

9) Define Deductive Reasoning –

Define Inductive Reasoning –

10) Think about your writing based on your stimulus packet in seminar. Was your writing deductive reasoning or inductive reasoning? Explain/justify your answer in 2-3 sentences.

PART 2

- Consider topics related to your possible college major or for a future career.
- Pick a topic you are passionate about. Do not select a broad topic from Seminar work.
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1) Consider **three** broad topic ideas that interest you. List three broad topics.

    _____

    _____

    _____

2) In ChatGPT or Bing's AI "Copilot," enter the following prompt. Do this once for each broad topic.

    What topics have been thoroughly researched in the area of _____?

    PRINT THE RESULTS FROM EACH AI SEARCH AND BRING TO CLASS – Copy and paste into a word document. Save doc on your cloud or thumb drive for this course. We continually keep track of our work, searches, and ideas in this course so saving things is mandatory.

3) In ChatGPT or Bing's AI "Copilot," enter the following prompt. Do this once for each broad topic.

    What topics have NOT been thoroughly researched on _____?

    PRINT THE RESULTS FROM EACH AI SEARCH AND BRING TO CLASS – Copy and paste into a word document. Save doc on your cloud or thumb drive for this course. We continually keep track of our work, searches, and ideas in this course so saving things is mandatory.

4) After considering your AI feedback from items 2 and 2 above: Pull 2 PEER REVIEWED RESEARCH ARTICLE ON THE TOPIC THAT INTERESTS YOU THE MOST. PRINT THESE OR SAVE THE PDF FILE ON YOUR cloud or thumb drive for this course.

5) Complete the following chart for one of the articles you selected. As you do this, highlight in your Research Article the exact place you find these items.

Required Element	Description	Page numbers where this element is found in the sample paper
Introduction and Literature Review	Introduces research question/project goal and reviews previous work in the field. Synthesizes the varying perspectives in the scholarly literature to situate the research question/project goal within a gap in the current field of knowledge.	What is the project goal or research question?
Method, Process, or Approach	Explains and provides justification for the chosen method, process, or approach and its alignment with the research question.	What is the research method or process for collecting data? What explanation do they give for using this method of method for collection data?
Results, Product, or Findings	Presents the findings, evidence, results, or performance/exhibit/product generated by the research method.	What do they include as evidence of their data results? What was their major result/finding?
Discussion, Analysis, and/or Evaluation	Interprets the significance of the results, performance/exhibit/product, or findings; explores connections to original research question/project goal.	How do they directly connect their research to prior research? How do they directly connect their findings to their own research question?

Required Element	Description	Page numbers where this element is found in the sample paper
Conclusion and Future Directions	Articulates the new understanding generated through the research process and the limitations of the conclusion or creative work. Discusses the implications to the community of practice. Identifies areas for future research.	What are the limitations to this study? What do they suggest as future research topics?
Bibliography	Provides a complete list of sources cited and consulted in the appropriate disciplinary style.	How many references did this author(s) have?