Research Psychology

Summer Assignment

Your summer assignment has 3 components and should take anywhere from 6 – 10 hours to complete. To help you plan your time, the third part of this assignment will be where you spend the bulk of your time!

Part I. Myths about psychology. The goal of this part of your assignment is to help eliminate project ideas that students have proposed over the years that are linked to common misconceptions about the field.

1.) Watch the TED talk: The top 10 myths of psychology | Ben Ambridge | TEDxYouth@Manchester
2.) Create a Word document and write out your answers to the following prompts. Save your Word document and upload it to the Dropbox for Part I of your summer assignment.
    a. List each of the myths discussed
    b. Which of these did you find most surprising or interesting? Have you heard of these ideas before? Explain your answer.
    c. What are some of the reasons these myths were widely believed?

Part II. Watch the following video (Research Methods and Design (AP Psychology Review: Unit 0 Topic 2)) and complete the guided notes packet linked on Canvas (and attached with this handout). Bring your completed notes to our first class meeting in the fall.

Part III. Developing a project idea. The goal of this part of your project is to walk you through a process of brainstorming an experiment idea. While you will not likely end up using this particular idea, it could serve as a model of how to generate further ideas.

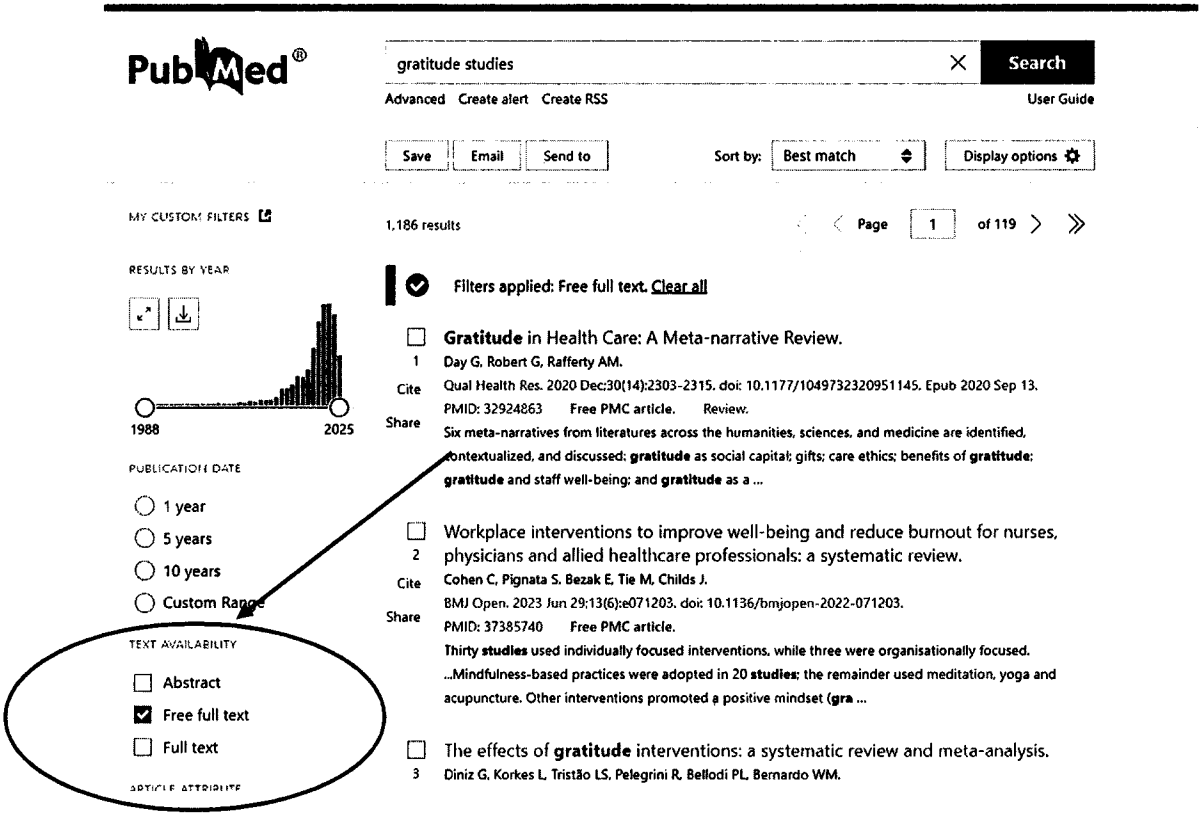
1.) Watch the TED Talk: Christina Costa: How gratitude rewires your brain | TED Talk
2.) Create a Word document and write out your answers to the following prompts. Save your Word document and upload it to the Dropbox for Part III of your summer assignment.

Prompt #1: In relation to the TED talk...

a. Dig a little deeper, how is the prefrontal cortex responsible for emotional regulation? This should be at least a couple paragraphs of a response *with citations.*
b. What were the two tasks she did to exercise gratitude? (a couple sentences should easily answer this question)

Prompt #2:

a. Go to PubMed: PubMed, a database of publicly funded medically related research, and search for an article using the phrase "gratitude studies". Your search results may look like the following. Check the box where it says *FREE FULL TEXT*! This will revise the results to only include links to articles where you can access the full text and not just the abstract. Read through some articles and select one you find most interesting.



b. Provide a link to the article:
c. In a couple paragraphs, describe the article (see below for the scenarios)
    i. If the article is a research study:
        1. Identify the objective of the study
        2. Identify what and how things were measured
        3. Describe who was in the study (participants)
        4. Describe what the researchers did and what the participants did.
        5. Summarize the key findings.

ii. If the article is a meta-analysis (a meta analysis synthesizes information from multiple studies to look at overall themes in research):
    1. Describe the focus of the meta-analysis.
    2. What were the inclusion criteria for articles they reviewed? (there should be a section that describes the databases they searched, the number of articles considered, and how they narrowed their scope).
        a. Identify the key findings from the meta-analysis.

d. Go to "Google" and search for "ways to measure gratitude." List three ways that gratitude can be measured.
e. Propose two studies that you could do involving gratitude. Describe the type of study (correlational, experimental, quasi-experimental), what your participants would do, and what data you would collect (i.e. what you would measure).

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Summer Assignment Part II

Research Methods and Design Notes

Directions: Watch the following video Research Methods and Design (AP Psychology Review: Unit 0 Topic 2) and answer the questions as you go. Bring a hard copy of these completed notes with you to our first class meeting.

I. Types of experiments.

1.) **Experimental methodology** is a _____ approach that is designed to be carried out under _____ conditions, with the goal to being able to _____ a hypothesis and establish a _____ relationship between _____ and _____ variables.

2.) **Nonexperimental methodologies** are used in research where a _____ experiment is _____ _____ or _____.

3.) What are the limitations of nonexperimental studies (there are 3):

4.) What are the four types of nonexperimental studies? List and describe each.

5.) What is the third variable problem? Which type of study is this most associated with?

II. Designing an experiment.

6.) What is the difference between a hypothesis and a theory?

7.) What are operational definitions?

8.) What are independent, dependent, and confounding variables? Define each.

9.) What is a way to reduce the number of confounding variables?

10.) What is the difference between a population and sample? Give an example of each in the context of an experiment.

11.) What is random sampling versus random stratified sampling?

12.) What is a representative sample?

13.). What is sampling bias?

14.) What is convenience sampling and what is its limitation?

15.) What is a control group also called?

16.) What are the benefits of random assignment?

17.) What makes a quasi-experiment and how is it different from an experiment?

18.) What is the difference between a single-blind and double-blind procedure?

III. Measurement.

19.) What are qualitative measures? Give examples in addition to a definition.

20.) A _____ scale is when participants answer questions on a scale from strongly disagree to strongly agree.

21.) What is informed consent versus informed assent?

22.) What is an Institutional Review Board and what is their responsibility?

IV. Conclusions

23.) Explain the role of peer review and replication in research.