

**Florida State University College of Criminology and Criminal Justice**  
**Ph.D. Comprehensive Examination in Research Methods and Statistics, Spring 2021**

**DAY 1 OF THE EXAM**

**INSTRUCTIONS**

Answer one question from each of the two sections below. Please notify the proctor when you are finished. Please note: Once a student takes possession of the examination at the start of the exam period, this constitutes an attempt at taking the exam, regardless of whether the student completes the exam, hands in any answers, or remains for the full exam period.

**I. RESEARCH DESIGN**

1. Develop an experimental design to test whether participation in a job training program in prison will reduce an inmate's likelihood of re-offending after release from prison. First, describe the proposed research design. Next, discuss how this research design represents an improvement over a quasi-experimental or correlational research design. Finally, explain any potential limitations/weaknesses of your proposed design.
2. Name and describe as many threats to a study's internal validity as you can. Explain how incorporating elements of the classical experimental design into a non-experimental study can help researchers assess the seriousness of specific threats to internal validity.

**II. DATA GATHERING METHODS**

3. Criminological research often utilizes large-scale survey data, while experimental and qualitative/ethnographic designs are less common. First, discuss some of the advantages and disadvantages associated with large-scale survey data. Next, describe ways in which other types of research (e.g., experimental designs, qualitative/ethnographic work) are most often used in the field. Finally, explain which of these types of research ought to be more or less influential as the field of criminology progresses.
4. The problem of missing data is a common concern when conducting survey research. Describe some of the potential reasons for missing data and the threats that it poses. What techniques can be used to avoid missing data? When analyzing the data, what methods can be used to deal with missing data?

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**DAY 2 OF THE EXAM**

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**III. STATISTICS**

5. Describe the two main ways in which a researcher might test for statistical moderation. How do the two methods differ, and what are their relative advantages? When might one be used over the other?
6. Describe three distinct statistical approaches that might be used to reduce the potential impact of confounding variables when experimental designs are not possible.

**IV. DATA INTERPRETATION**

7. Interpret the findings of the attached article by Cecen-Celik and Keith (2019). This means that you should tell what the results mean with respect to the goals of the researchers and what they were trying to find out, just as if you were writing the Results and Discussion/Conclusion sections of the journal article. Do not merely repeat in words what is already shown in numbers in the tables. What conclusions would follow from the results? What problems with the methods might undermine or weaken these conclusions?
8. Interpret the findings of the attached article by Restivo and Lanier (2015). This means that you should tell what the results mean with respect to the goals of the researchers and what they were trying to find out, just as if you were writing the Results and Discussion/Conclusion sections of the journal article. Do not merely repeat in words what is already shown in numbers in the tables. What conclusions would follow from the results? What problems with the methods might undermine or weaken these conclusions?