

Florida State University College of Criminology and Criminal Justice
Ph.D. Comprehensive Examination in Research Methods and Statistics, Fall 2014

Instructions:

There are four sections to the exam. Answer one question from each section. You have until 4:00 PM to finish. If you have problems with the exam, you may consult with faculty proctoring the exam: Sonja Siennick (Room 315B), 8:00-10:00 AM; Brian Stults (Room 302A), 10:00 AM to Noon; Dan Mears (Room 314C), Noon to 2:00 PM; Gary Kleck (Room 314B), 2:00-4:00 PM. Please notify Margarita Frankeberger (Room 216) when you are finished and ready to have your exam answers printed out. 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. You have been asked to propose two different research designs for studying whether playing violent video games affects violent behavior among juveniles. Give a thorough description of each proposed design, including a discussion of its strengths and weaknesses. Which approach do you recommend, and why?
2. Assume you know that variables A and B are statistically associated. Describe as many methods as you can that could help you establish which of the two variables is the cause and which is the effect.

II. DATA GATHERING METHODS

3. Discuss potential drawbacks to using (1) official crime statistics, (2) victimization surveys, and (3) self-report surveys to study the occurrence of crime and to test criminological theories. Describe one area of research where substantive conclusions have varied across two or more of these sources of crime data.
4. For each of the following modes of data collection, describe the method, assess its advantages and disadvantages, and provide an example of when the method might be particularly useful.
 - (a) self-administered questionnaire
 - (b) telephone survey
 - (c) Internet-based survey
 - (d) face-to-face interview

III. STATISTICS

5. Criminologists lay great emphasis in their research reports on the statistical significance of associations. What precisely does statistical significance tell the researcher? Under what circumstances is statistical significance less meaningful or informative? What alternative(s) can be used to judge the importance of empirical associations?
6. Explain the regression approaches that you would use with (a) a continuous outcome, (b) a binary outcome, (c) an ordered categorical outcome, (d) a non-ordered categorical outcome, and (e) a count outcome, respectively. In each instance, describe the approach and provide examples of how you would interpret typical output from analyses.

III. DATA INTERPRETATION

7. Interpret the findings of the attached article by Meldrum. 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 Smith, Makarios, and Alpert. 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?