

**Florida State University
College of Criminology and Criminal Justice**

PhD Comprehensive Examination in Research Methods & Statistics

Fall 2006

Instructions:

There are four sections to the exam. Answer one question from each section. You have until 4:00pm to finish. If you have problems with the exam, you may consult with faculty proctoring the exam. Return your completed exam to the proctor on duty when you are finished.

Dan Mears (Room 308), 8:00am – 10:00am;
Bill Bales (Room 324), 10:00am – 12:00pm;
Bill Bales (Room 324), 12:00pm – 2:00pm;
Brian Stults (Room 317), 2:00pm – 4:00pm

SECTION I: RESEARCH DESIGN

1. You are writing a grant proposal to evaluate newly implemented sex offender treatment programs in the Florida prison system. Because this is a collaborative research project with the Department of Corrections, your current job is to write for the Secretary of the Department a brief but clear summary of the (1) sampling design, (2) research methodology, including subjects, variables, and analytic plan, and (3) anticipated outcomes to be measured. Include a justification for the design approach (why this is the best one) and indicate what the limitations are as well as how you plan to overcome the anticipated hurdles that you will face in implementing the design. Indicate how you will balance the need to collect data with the time and resource demands facing the department.

2. Experimental designs with a control and experimental group with random assignment is considered the “gold standard” of research designs. However, implementing such a design is very difficult to carry out in the field of criminology. Thus, researchers typically resort to quasi-experimental designs to estimate causal relationships between variables such as poverty, education, etc. and criminal behavior. Explain why the experimental design is considered superior to the quasi-experimental design. Explain what specific approaches are taken and techniques used when conducting a quasi-experimental design that enable researchers to argue that they can make causal inferences similar to an experimental design with a control and experimental group and random assignment.

SECTION II: DATA GATHERING METHODS

3. Gottfredson and Hirschi argued in the early 1990s that longitudinal studies of the causes of crime and delinquency are unnecessary since they add little to what we can learn from cross-sectional studies. Evaluate this argument by discussing the advantages and disadvantages of both longitudinal and cross-sectional research. Give concrete examples of both approaches using existing literature in criminology and criminal justice. Finally, take a side in this debate and support your viewpoint.
4. A central criticism of qualitative methods is that the results are not generalizable. Should you conduct research that relies on in-depth interviews, you will need to defend your approach, emphasizing why it is appropriate to your research question and what its limitations are. Assume here that you have a study that relies solely on in-depth interview. Please respond to the following questions. (1) How many interviews typically are sufficient? (2) Related to that question, when conducting qualitative research involving interviews, what criteria should be used to determine when enough interviews have been conducted? (3) Why exactly are in-depth interviews more appropriate or useful than, say, conducting a paper-and-pencil or telephone survey of a random sample of the population of interest? In responding to these questions, consider dimensions such as theory, hypothesis-testing, the state of knowledge in a given area, and such pragmatic considerations as cost and access to respondents.

SECTION III: STATISTICS

5. Criminologists and criminal justice researchers have a long history of studying the ecological or differential distribution of crime and resources over time and space (i.e., crime rates, juvenile delinquency rates, police employee rates, variations in court sentencing, etc.). Discuss the major statistical issues that typically challenge researchers and discuss the remedial choices that are available.
6. Recidivism research is an important component of criminological research, especially when determining the effectiveness of educational, vocational, and substance abuse programs. Researchers commonly use Logistic Regression or Survival Analysis to build multi-variate models to measure the predictors of recidivism. Explain the concepts, techniques, model testing methods, resulting statistics, and methods of interpretation of a model using one or both of these two methods if you were conducting a program evaluation study with a recidivism outcome variable. Include in your explanation any relevant differences in the two methods in terms of how they inform the research.

SECTION IV: DATA INTERPRETATION

7. Interpret the findings of the attached article by Unever and Cullen. 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 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 Kubrin and Stewart. 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 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?