COMPREHENSIVE EXAM - RESEARCH DESIGN AND METHODS
Criminal Justice Ph.D. Program
August 2016

Directions
You will have 3.5 hours to answer both questions below.
Answers should be typed, double-spaced, 1" margins. Be sure to save your answer often. Your answer should be written as if you were writing a paper. It should be in essay form and should read well. Use headings and make connections between the sections as best you can in an exam setting. Your answers will be blindly assessed by members of the faculty.
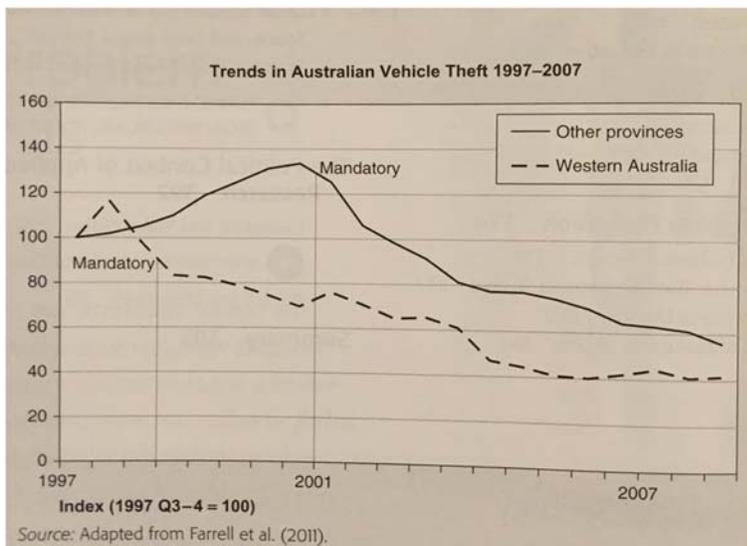
Question 1: Design a Study
Please **choose one of the two scenarios** and prepare a concise and yet well-argued research proposal.

Scenario 1:

During the last decade, upward trends in motor vehicle theft across the world have led to significant advances in vehicle security. Features such as alarms, locks and vehicle identification systems that are difficult to reproduce are now common Original Equipment Manufacturer (OEM) products in new vehicles. In addition to these and other security features is the development of the engine immobilizer. An engine immobilizer is an electronic device that will not allow the vehicle to be started without first receiving the correct signal from the person starting the vehicle. This signal can be communicated with Electronic Key - a coded key, which enables the engine to start. The argument is that hardening targets will reduce vehicle theft overall.

Looking at trends in Australian Vehicle Theft (1997-2007), it appears that mandatory engine immobilizers lead to drop in vehicle theft.

Trends in Australian Vehicle Theft 1997–2007
Index (1997 Q3–4 = 100)
Source: Adapted from Farrell et al. (2011).

The state of New York wants to know if this is indeed an effective crime reduction policy for both opportunistic and professional theft and whether it is cost-beneficial to invest money in Electronic Key Codes in order to reduce crime. Thus policy makers are asking you for a proper evaluation of the long-term effectiveness and unwanted consequences of electronic engine immobilizers on crime.

Policy makers are interested in some of the following questions:
- Do immobilizers reduce only opportunistic theft or do they also have an impact on professional theft?
- Do immobilizers lead to increased victimization and rise in violent crime?
- Will the mandatory use of immobilizers (and hardening of targets) lead to crime displacement?
- Do professional thieves respond to increased perceived effort and risk of crime?
- What other major factors affect the decision-making processes of vehicle thieves?

Using mixed methods approach please conduct an Impact Evaluation of this new policy designed to answer two of the questions listed above. Develop an appropriate design for Program Evaluation that combines quantitative and qualitative methods.

Given the case description and research questions, you should be able to choose, describe and justify how you would approach the study, including the specific methods you will employ. The kinds of material you will collect (or construct), and the object, sample, population, and/or site of study should also be sensibly chosen and argued for.

Make sure your proposal addresses:

1. Which research design is most appropriate for this study? Why?

2. State the specific quantitative and qualitative research questions/hypotheses for your study.

3. Sample:
a. Discuss your sampling technique. Be specific and provide justification for the selection.
b. Discuss what an appropriate comparison group would look like and why you need one.

4. Data collection:
a. Discuss the data and methods you are using. Be specific and discuss both qualitative and quantitative methods.
b. Think realistically about how you will gain access.
c. Think if the study could benefit from a cross-national comparison.

5. Measurement issues:
a. Discuss what you are measuring and how you are measuring it. There should be a fit between the research question, the data, and measurement.

6. Variables and social mechanisms:
a. Describe the variables you are using (independent variables and dependent variable).
b. Explain the contexts, processes, and/or meanings you will explore in your study.

7. Data issues
a. Discuss potential issues with, and the trustworthiness, of your data.
b. Discuss the strategies you will use to ensure your quantitative data are "accurate" or credible, and the techniques will you use to ensure that your qualitative data are consistent.

8. Ethical issues:
a. Discuss the ethical issues your study raises, and any special concerns that the study might raise for an IRB.

9. Implications:
a. Finally, discuss what the implications are of your study for both future research and policy.

Reduced Probation Caseload in Evidence-Based Setting (RPC) is a community corrections model that aims to reduce recidivism of high-risk probationers by assigning them to intensive supervision by an officer with a reduced caseload and through the use of evidence-based practices. The three key components of RPC are: (1) The assignment of high-risk probationers to supervision officers with reduced caseloads to facilitate more rigorous and frequent contacts; (2) the separation of specialized caseloads for domestic violence, sex offenses, mental health, and the like to improve managerial efficiency; and (3) the provision of cognitive-behavioral interventions to foster prosocial changes. The model has been found to be effective in reducing rearrests in multi-site evaluations.

The state of New Jersey plans to introduce this supervision model, but given its budget constraints, only a simplified, and thus less expensive, RPC program can be realistically and faithfully implemented. Policymakers are interested in knowing which of the three components (i.e., reduced caseloads, specialized caseloads, and cognitive-behavioral interventions) is less effective in reducing recidivism to recidivism reduction that can be dropped. They also want to know about the differential effects of the programmatic options on the morale of probation officers. The new RPC program must not be one that yields the lowest job satisfaction among participating supervision officers.

You are hired to help the legislature of New Jersey to design and conduct an evaluation study that can address their concerns described above and provide useful information for their decision-making. Given the urgency and importance of this policy issue, correctional authorities are willing to make any adjustments to accommodate to your sampling needs.

Make sure your proposal addresses:

1. What are your research questions and/or hypotheses?

2. Which research design is most appropriate for this study? Why?

3. Sample:
a. Discuss your sampling technique.
b. Discuss what group comparisons you would make and why.

4. Data collection:
a. Discuss the data and methods you are using.
b. Think realistically about how you will gain access.

5. Measurement issues:
a. Discuss what you are measuring and how you are measuring it.

6. Variables and social mechanisms:
a. Describe the variables you are using (independent variables and dependent variable).
b. Explain the contexts, processes, and/or meanings, if any, that you will explore in your study.

7. Data issues:

a. Discuss potential issues with, and the trustworthiness, of your data.

b. Discuss the strategies you will use to ensure your quantitative data are "accurate" or credible, and the techniques will you use to ensure that your qualitative data are consistent.

8. Ethical issues:

a. Discuss the ethical issues your study raises, and any special concerns that the study might raise for an IRB.

9. Implications:

a. Finally, discuss what the implications are of your study for both future research and policy.

<u>Question 2: Short-Essays</u>
Please answer each of the three following questions with a short essay.

(1) Explain three major differences in the design elements of qualitative and quantitative methods and in the assumptions they make about the social world.

(2) Explain the major differences between Phenomenology, Ethnography and Grounded theory.

(3) Explain the two essential qualities of a good sample in quantitative research and what researchers do to achieve these goals.