Part I of 2011 Sample Exam – For Reference Only

George Mason University
School of Public Policy
Doctoral Qualifying Examination, Part I (in-class exam)

May 21, 2011 9:00am – 12:00 noon
Founders Hall 307 (computer classroom)

Instructions
The following questions draw exclusively from:


Answer each question in order, but first read through all questions to avoid redundancies in your answers. Answer each question completely, being both explicit and concise as appropriate to fully communicate your answer. Be sure to manage your time carefully so that you have time to answer all seven questions (Also consider the point values of each question).

Place your completed examination in your exam envelope and return it to the proctor. Write the tracking number on the bluebook, notes, and on the outside of the exam envelope. Do not put your name on the envelope or any materials in the envelope.

Examination Questions

1. What are the goals of this research article? What specific research question(s) are the authors trying to answer? (10 points)

2. Identify the primary dependent and independent variables used in the study. (5 points)

3. Subjects were recruited for this study from field contacts, through snowball sampling techniques, and from a local methadone maintenance program. Discuss the pros and cons of these recruitment strategies. (10 points)

4. Describe the data. Apart from the cons of the recruitment strategies discussed in question #3, what problems do you see in the data used in the study? (10 points)

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5. The following questions refer to the analysis summarized in Table 2 (p. 189) and Table 3 (p. 190). (30 points)

   a. Describe the general methodology used to test the major research questions.
   b. In the combined sample, what proportion of subjects did not conform to the A-M-O sequence? Explain.
   c. As described in section 2.2.1, concurrent use (e.g., of alcohol and marijuana) was assumed to be in accordance with the hypothesized typical sequence of A-M-O. Explain how this assumption might bias the results of the analysis.
   d. Give at least two possible explanations for why the results of the analysis differ from the findings of previous studies.

6. The following questions refer to the results of the analyses summarized in Table 4 (p. 191), Table 5 (p. 192), Table 6 (p. 193) and Table 7 (p. 194). (25 points)

   a. Explain why chi-square tests were used to examine the association between drug use sequence and the background variables in Table 4 (e.g., sex), but t-tests were used to examine the association between drug use sequence and the background variables in Table 5 (e.g., age of first illicit drug use).
   b. In Table 4, ethnicity was found to be significantly associated with drug use sequence. Using the results from Table 6, explain why this finding may be a spurious association.
   c. According to Model 3 in Table 7, what is the effect of a one-year increase in the age of first ‘hard’ drug use on the odds of being in the atypical sequence category (note: the interpretation given in the text of the paper (p. 191) to the odds ratio of the ‘age of first hard drug use’ variable is incorrect)? What about a two-year increase?

7. What are the authors’ major conclusions? Evaluate the extent to which the authors’ conclusions are warranted by their data and analyses. (10 points)