

FALL 2003
AJ 202 Section 1
Mon 5:30-8:15 pm

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9-10am, 2-5:30pm
(except for faculty meetings).
Other times by appointment.

AJ202

Seminar in Justice Research & Evaluation.

Course Description:

An examination of research methods applied to solving problems and resolving issues in criminal justice; focus will be on the application of the scientific methods to problem-solving and program evaluation.

Learning Objectives:

Graduate students will develop:

- Professional and intellectual skill in formulating research questions, choosing variables as indicators, managing and analyzing data, and presenting findings
- Capacity to constructively criticize and evaluate research and to be a discerning consumer of research findings
- Competency in using SPSS 10.0 (Statistical Package for the Social Sciences) to undertake basic and applied research.

This course is in preparation for AJ203 where the emphasis will be more upon designing an evaluation research plan, choosing methods of data collection, and developing policy implications from the findings.

Pre-Requisites: Stat 95 and AJ105 or equivalents.

Required Texts:

George Dowdall, Kim Logio, Earl Babbie & Fred Halley (1999). *Adventures in Criminal Justice Research*. Rev. Ed. Thousand Oaks, Ca, Pine Forge.

Recommended Reference for Statistical Procedures:

Ronet Bachman & Raymond Paternoster (1997). *Statistical Methods for Criminology and Criminal Justice*. NY: McGraw-Hill.

(Other basic statistical texts can be substituted)

Course Requirements and Grading:

Weekly assignments involve research planning exercises and data management and analysis using the computer and are graded credit/no-credit. A mid-term exam will involve an analysis and critique of a published piece of research. A written paper documenting the student's own research project is due at the end of the semester. (See separate handout for instructions on the paper). Students are expected to give oral presentations illustrated by graphics on their final paper at this time.

Grades will be made up of 15% for the weekly assignments, 35% for the mid-term exam, and 50% for the final paper. Completion of extra advanced computer assignments (to be provided) and above average oral presentations will provide an opportunity for students to raise their grade by one half a level.

Teaching Philosophy:

This seminar is an interactive learning experience. After a review of the components of the research process, each class session will involve hands-on interaction with data on the computer. Students have the choice of working in small groups of 2 or 3 or working alone on the research project. However, all final written reports must be individually produced.

In accord with departmental policy, make-up exams and acceptance of late reports after the due date will be provided only in extreme cases and only where appropriate documentation is provided. However, every encouragement is given to students who wish to learn from their mistakes and earn high grades. Make-up or re-takes of the mid-term exam can be done at the time of the final exam. The final paper, due December 1st

may be re-written and re-submitted on or before Monday, December 15th.

CLASS SCHEDULE AND ASSIGNED READINGS

- Aug 25 *Class:* Introduction and review of course: basic, applied & evaluation research; ethical principles.
Lab: Introduction to SPSS, coding, entering and accessing data: Dowdall et al. Chpt 1,2 & 5.
- Sep 8 *Class:* Theory, conceptual propositions & definitions, hypothesis & variables.
Lab: Exploring data sets. Dowdall et al. Chpt 3 & 4.
Bachman & Paternoster, Chpt 2.
- Sep 15 *Class:* The logic of measurement: validity, reliability, multiple Indicators, levels of measurement & units of analysis.
Lab: Univariate analysis. Dowdall et al. Chpts 6,7 & 8.
Describing a variable using frequency tables, means & Standard deviations, modes and medians; graphic illustrations using histograms, pie charts and scattergrams.
Bachman & Paternoster, Chpt 1,3.
- Sep 22 *Class:* Methods of collecting and coding data.
Lab: Univariate analysis. Dowdall et al. Chpts 6,7 & 8.
Recoding and modifying variables.
Bachman & Paternoster, Chpt 4,5.
- Sep 29 *Class:* Research design & sampling.
Lab: Univariate analysis (cont.) Dowdall et al. Chpts 9 & 10.
Creating composite measures and indexes.
- Oct 6 *Class:* Analyzing and interpreting data.
Lab: Data reduction by factor analysis
Handout from SPSS Training Manual
- Oct 13 *Class:* Presentation of data and critiquing research.
Lab: Bivariate analysis. Dowdall et al. Chpts 11,12, & 13.
Crosstabulation and correlation.
Bachman & Paternoster, Chpt 8,9,10.

- Oct 20 *Class:* Practice mid-term exam.
Lab: Bivariate analysis. (cont). Dowdall et al. Chpts 14, 15 & 16. Measures of association; lambda, gamma, Chi-Square. Bachman & Paternoster, Chpt 11
- Oct 27 MID-TERM EXAM
- Nov 3 *Class:* Introduction to theoretical modeling.
Lab: Multivariate analysis. Dowdall et al. Chpts 17 & 18
Regression, T tests, ANOVA, epsilon
Bachman & Paternoster, Chpt 12,13.
- Nov 10 *Class:* Path analysis.
Lab: Multivariate analysis (cont). Dowdall et al. Chpts 19 & 20. Odds ratios, logistic regression.
Bachman & Paternoster, Chpt 14,15,17
- Nov 19 *Class:* Preparing research reports and proposals.
Lab: Review
- Nov 24 Preparation of research project.
- Dec 1 FINAL PAPER DUE
Class presentations of individual research projects
- Dec 8 Class presentations of individual research projects
Feedback on final paper from instructor
- Dec 15 Class presentations of individual research projects
(if necessary).
RE-SUBMISSIONS OF FINAL PAPER DUE
ON OR BEFORE MONDAY, DECEMBER 15, 5:30PM.

AJ202

Assignment 1. Due September 15, 2003 (worth 2 credits)

STATEMENT OF RESEARCH TOPIC

In about one page, answer the following in outline form, using the headings provided.

In two or three sentences, describe a problem you wish to research and explain why it is important to study. (For example, "The effectiveness of law enforcement in decreasing crime is important to evaluate. It is commonly believed that police presence alone is sufficient to *deter* people from breaking the law. However, a contrary argument is that more crime will be *detected* when there is closer scrutiny by police officers. It is important to provide data to show which of these entirely different effects is more likely).

2. Proposition:

State your main theoretical proposition using general, abstract law-like statements (For example, "Law enforcement surveillance decreases crime".)

3. Definitions:

Define the important terms in your theoretical proposition. (For example, "Law enforcement surveillance is defined as public monitoring by authorities. Crime is defined as behaviors that are violations of law e.g. prostitution, drug dealing).

4. Scope:

Suggest the conditions under which this proposition is more likely to be true and when it is unlikely to be true. (For example, the above proposition is more likely to be valid for crimes committed in public places and less likely for crimes committed in private places (like personal homes.)

5. Hypothesis:

State one specific hypothesis i.e. an instance of your more general proposition. (For example, "police cruise-bys on a random but frequent basis are likely to decrease the extent to which prostitutes solicit in the streets of the Tenderloin District in San Francisco.")

7. Variables:

Suggest specific ways of measuring the dependent and independent variables. (e.g. For the independent variables, # of police cruise-bys and the time lapse between cruise-bys. For the dependent variable, # of arrests for prostitution and # of solicitations for prostitution by a research stooge would be valid indicators).

Assignment 2: Due September 22, 2003. (1 credit)

SPSS ASSIGNMENT:

- Complete Independent Project A & B, Chapter 6
- Complete Independent Project A, Chapter 7
- Complete Independent Project A & B, Chapter 9

Assignment 3: Due September 29, 2003 (worth 3 credits)

Before preceding to the third assignment, you will need to make corrections to your first assignment in response to the instructor's comments. If you are confused or unsure of how to make these corrections, please make an appointment to see the instructor. *You must attach your first assignment, and your re-written first assignment to the second assignment. Your paper will not be graded without these earlier drafts.* Use diagrams and/or outline form.

Outline a **research design** to test the hypothesis developed in your first assignment. Specifically:

1. How you would obtain your research sample to ensure it is representative of the population you wish to study (i.e. the external validity of your findings)?
2. If you choose an experimental study, describe the research design and what experimental comparison or control groups would be used. (Remember: an experimental design usually includes a no-treatment control group and involves random assignment of subjects to the different groups or conditions, where the independent variables are controlled by the researcher.)
3. If it is not feasible to employ an experimental design, diagram a theoretical model of your hypothesis that you could test, using the natural variation of your independent variable within a large, representative sample.
4. What background variables, independent variables, intervening variables and dependent variables will you attempt to measure?

SPSS ASSIGNMENT:

- Complete Independent Project A Chapter 8
- Complete Independent Project A & B Chapter 10

Assignment 4: Due October 6, 2003 (worth 2 credits)

Describe the research methods you will use for collecting data to test your hypothesis from Assignments 1 and 3. Summarize these methods in outline form under the following headings:

I. Methodology.

a) Selection of Subjects and obtaining their Informed Consent:

Describe where you plan to obtain your sample. If you have a comparison or control sample, describe how you will try to ensure it is comparable to your research sample. Following the guidelines for protection of human subjects, describe how you will obtain the informed consent of subjects, agencies or communities to provide you with data i.e. what will you tell them or do for them to persuade them to cooperate. How will you ensure a good response rate and minimize subject attrition, especially if you are collecting data from them over a period of time.

b) Procedures: Describe the method of collecting data for each of your background, independent and dependent variables. Data collection methods may involve one or more of the following:

- a) surveys (written, telephone, or in-person interviews);
- b) observation study (non-obtrusive, participatory, or use of confederates);
- c) document analysis (private documents, official statistics or public documents).

II. Measures:

Construct a questionnaire (for a survey study) OR data coding forms (for an observation or document study) to measure your independent and dependent variables. Pre-code your forms by assigning numbers to all possible responses for each variable. Independent variables can be coded on any of the following levels of measurement: categorical, ordinal, interval or ratio. Dependent variables should be coded on the highest level of measurement possible i.e. preferably interval or ratio.

Discuss how you might determine the validity and reliability of the measure of your independent OR your dependent variable.

Please attach drafts of Assignment 1 and Assignment 3.

SPSS ASSIGNMENT

Using the JUSTICE.SAV file, create the FBI Crime Index – See Dowdall et al page 162.

Assignment 5: Due October 13, 2003 (worth 3 credits)

Using GSS96 data:

1. Create an index of racial prejudice as in Project B, Chapter 10.
2. Describe how you constructed and validated your index or measure of racial prejudice.
3. Undertake an attrition analysis comparing those who responded to the questions on racial prejudice with those who did not respond to the questions.
4. Write up the results of your attrition analysis.

Assignment 6. Due October 20, 2003 (1 credit)

SPSS ASSIGNMENT:

Complete Independent Project A Chapter 11
Complete Independent Project A Chapter 12

1. *Read article in preparation for practice mid-term exam.*

Assignment 7: Due November 3, 2003 (1 credit)

SPSS ASSIGNMENT:

Complete Independent Project B & C, Chapter 15

Assignment 8: Due November 10, 2003 (1 credit)

SPSS ASSIGNMENT:

Complete Independent Project D, Chapter 14
Complete Independent Project A & B Chapter 16

Assignment 9: Due November 17, 2003 (1 credit)

SPSS ASSIGNMENT:

Complete Independent Project B Chapter 17
Complete Independent Project A Chapter 20

AJ202 PREPARING YOUR FINAL RESEARCH REPORT

The final assignment is to develop a research problem that you would like to investigate, using one of the data sets provided by Dowdall et al., in "Adventures in Criminal Justice Research". (Other data sets of comparable quality can be used with permission of the instructor). Develop several related hypotheses and test them using these data.

The emphasis in this assignment is not upon the literature review (3-4 relevant references are sufficient). The focus should be upon management of data, development and validation of appropriate indicators, appropriate choice of statistical analysis and clear presentation and interpretation of the findings. The following guidelines are for the final report which is **due December 1**. You will get feedback within one week. You are expected to give a 10 minute presentation to the class, with overheads. Rewrites of the final report are due on the exam date scheduled for this class, **December 15, 2003**.

For the purposes of this assignment, you should use APA style.

Format of the Report:

The research report should contain the following sections: abstract, introduction, literature review, purpose of study, description of methodology, data analysis and results, discussion of results, conclusions, and references.

Abstract: is a brief summary (usually 200 words or less) of your study at the beginning of the report - a succinct statement of research topic, brief summary of the methodology, summary of findings and conclusions. Write this last.

Introduction- is a non-technical discussion of the research problem to be studied with some justification as to why it is important to study. This should lead to a statement of your general theoretical proposition and scope conditions

Literature Review:

The literature review provides a survey of previous research studies that have investigated this topic, often presented historically. It should briefly summarize prior researchers' subjects, method and findings, as shown in the following fictitious example.

In a study of 300 police officers in the inner city area of Chicago, Rosenbaum and Levy (1993) found that women officers were more likely to use force than men." Another study of 55 police officers, (Baker, Ribera and Jones, 1994) found that smaller male police officers in urban precincts tended to use more force than large one. A series of other studies, have linked competence in police response, including the judicious use of force to the amount of training they have undertaken (Billings, 1985; Smith & Little, 1986, Zeehan, 1979).

Then you might add a critique as follows:

It is unclear, therefore, whether the use of police force is related to one or more of the following - gender of the officer, size of the officer, or the amount of training the officer has had.

How to deal with indigestible amounts and types of background literature - what is relevant and what is not? Here let your theoretical proposition and scope conditions

guide you. Refer to the literature that addresses what you are studying. Other marginally related bodies of work can be briefly referenced in footnotes if necessary.

The literature review should end with a summary of what has been found in past studies, what are the controversial or null findings, what are the gaps in knowledge, and/or what methodological flaws plague the prior work. All of this will then become a natural lead in to your particular study that aims to help clarify ambiguous findings or to fill the gaps, and hopefully uses a methodology that is superior to those used in past studies.

Methodology:

Description of *subjects and setting* chosen for research, criteria for eligibility to the study (make sure they conform to your scope conditions) and how they were recruited.

Description of *research design*: In this kind of study, the research design is quasi-experimental. It will involve a naturalistic study of a large number of subjects – a representative sample that has been drawn from the whole population (i.e. a secondary data set), where statistical controls are used to test the hypothesis. Briefly describe the data set, how and when it was collected, and the kinds of variables it contains. It is sufficient to simply give references when using established, well-documented data sets for secondary analysis.

Measures: Develop some measures or indicators for the dependent and independent variables in your hypothesis. List these and give information on the validity and reliability of the measures that are used. This means you need to describe how you developed them, and how you have validated them – face validity (use of experts in the field), concurrent validity (how they relate to established measures of the concept) or predictive validity (capacity to predict other variables in your data set). You also need to add other background variables that are not germane to your hypothesis (age, gender, education, occupation, prior criminal history etc.) to properly identify the sample.

Data Analysis: usually begins with an explicit statement of your hypothesis (in terms of the dependent and independent variables). Describe the sequence of statistical methods used to analyze and present your data. If you are investigating a number of different hypotheses, you can introduce each one prior to the data analysis addressing each one.

Results: Note Subject Attrition and Missing Data, or any other problems encountered in implementing research plan that would influence the interpretation of the data.

Presentation of the data within the text should be completely objective. Do not make any editorial or interpretative comments. State the major findings in the text and refer to the detailed findings within the accompanying tables and figures. Be extremely concrete and factual - refer to actual variables in the hypothesis, not to the more generalized concepts in the proposition. Result sections can be fairly technically written. Tables and figures (bar graphs, pie charts, histograms etc.) should be fully self-explanatory. This means including a meaningful title, the total N and the sub-n's for each category, label the dependent and independent variables, provide summary statistical information

Four kinds of data need to be presented:

a) *Descriptive Statistics* for the background and independent variables. i.e. percentages, means, modes, medians, ranges, standard deviations.

(These can be illustrated in tables, pie charts, bar graphs etc.)

b) *Bi-variate analysis*: cross-tabulations and correlations.

c) *Tests of the Hypotheses*: -e.g. using chi-square, t-tests, ANOVA, multiple regressions etc.

d) *Post-hoc and Exploratory Analysis* - to examine alternative hypothesis to explain the data, to explore in which sub-groups the hypothesis may be supported etc.

Discussion and Conclusions:

This is a non-technical discussion of the principal findings and their implications. This is where the researcher attempts to interpret the data, speculate on how the data can be generalized to the general proposition, discuss how it is similar/or dissimilar to previous studies (and why). It includes:

a) non-technical summary of the overall findings with interpretations,

b) discussion of the limitations of the research design, and cautions about the possible misuse and overgeneralizations about the findings.

c) discussion about the future direction for research.

References: Remember to use APA style!