

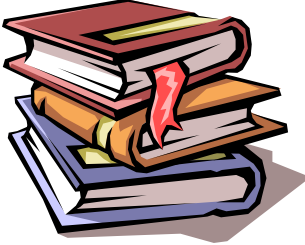
CALIFORNIA STATE UNIVERSITY - SACRAMENTO

EDD 606 - Quantitative Research Methods

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“Research design requires looking at the ‘big picture’ as well as tremendous attention to detail...in which each element shapes a complete study.”

--John W. Creswell

Introduction:

This course will introduce educational leaders to concepts in quantitative research in preparation for conducting independent research. This course will enable students to critically understand, critique, and develop quantitative research methodology and apply it appropriately to various educational issues.

Outcomes: Students should be able to...

- Demonstrate their understanding of major research methods and their ability to make use, and interpret the results, of quantitative research techniques.
- Identify and conduct the appropriate techniques for different kinds of research questions using SPSS (Statistical Package for the Social Sciences).
- Apply their understanding of quantitative research methods in relation to contemporary issues in education.
- Critically assess the utility and appropriateness of different quantitative methods and techniques for the study of relevant research issues in education.
- Understand and critique existing quantitative research studies.
- Develop a quantitative research proposal for the purpose of conducting original research.

Topics:

- Experimental and quasi-experimental research
- Designing non-experimental studies
- Survey research
- Analyzing existing databases
- Validity, reliability and generalizability
- Introduction to SPSS and the dataset
- Comparing groups (t-Test and Analysis of Variance)
- Regression analysis

Grading:

- Class attendance and participation 20%
- Lab sessions in SPSS 30%
- In-class exercises 20%
- Development/presentation of a research proposal 30%

Assignments & Expectations:

- Many of the course assignments will be done in class and in the computer lab.
- Students will be expected to read the assigned material, as specified on the course schedule, prior to each class session.
- Students will be given a hand-out in class describing the expectations and content for the quantitative proposal.
- The proposals will be presented in a poster session format on the last day of class.
- Because of the short number of class meetings and the necessity for lab sessions, perfect attendance is very important! Missing a lab session or a lecture may result in a lowered grade, additional coursework, or the need to repeat the course at a later time. Please speak with me in advance if you intend to have a conflict.
- If you have a disability that may warrant accommodations in this class, please make an appointment to see me at your earliest convenience. I am committed to facilitating student success and will make any appropriate accommodations to enhance your learning. You are your best advocate!

Required Text:

Using SPSS for Windows and Macintosh: Analyzing and Understanding Data (5th Edition). Samuel B. Green & Neil J. Salkind. Prentice Hall (2008).

*It is recommended that you purchase the text with the SPSS 16.0 Student Version disk included, however it is not required since you will have access to SPSS in the computer lab.

Recommended Additional Reading:

Research Methods in Applied Settings: An Integrated Approach to Design and Analysis. Jeffrey A. Gliner & George A. Morgan. LEA Publishers (2000).

Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (2nd Edition). John W. Creswell. Sage Publications (2003).

Research in Education: Evidence-Based Inquiry (6th Edition). James H. McMillan & Sally Schumacher. Pearson Publishing (2006).

Tentative Course Schedule

EDD 606 – Quantitative Research Methods

Date	Topic	Assignment Due
Friday 10/9	<ul style="list-style-type: none"> • Introduction to course • Quantitative research designs (experimental and quasi-experimental) • Non-experimental designs • Introduction to SPSS 	<ul style="list-style-type: none"> • Read Units 1-3 in text • Quantitative exercises (in-class)
Saturday 10/10	<ul style="list-style-type: none"> • Validity, reliability and generalizability • Understanding Variables • Developing your proposal 	<ul style="list-style-type: none"> • Read Unit 5 in text • Quantitative exercises (in-class)
Friday 10/23	<ul style="list-style-type: none"> • Comparing groups <ul style="list-style-type: none"> ○ T-test ○ ANOVA • SPSS lab session #1 	<ul style="list-style-type: none"> • Read Units 6-7 in text • SPSS exercises (in-class) • Proposal outline • Quantitative article - critique #1
Saturday 10/24	<ul style="list-style-type: none"> • Sampling Procedures • Using graphs & charts • SPSS lab session #2 	<ul style="list-style-type: none"> • Read Units 4A-B in text • SPSS exercises (in-class) • Quantitative article exercises
Friday 11/6	<ul style="list-style-type: none"> • Group Discussion • Associational Designs <ul style="list-style-type: none"> ○ Correlation ○ Regression analysis 	<ul style="list-style-type: none"> • Read Unit 8 in text • Quantitative exercises (in-class) • Quantitative article - critique #2
Saturday 11/7	<ul style="list-style-type: none"> • Final Review & Discussion • Presentation of Proposals 	<ul style="list-style-type: none"> • Research Proposal