



Nova Southeastern University
Fischler School of Education and Human Services
Applied Research Office

Course Title and Credits

RESEARCH DESIGN AND METHODS (3 credits)

Course Description

The purpose of the Research Design and Methods course is for doctoral students to demonstrate an understanding of the purpose of research, research design, and research methods. Research is the application of the scientific method to solving real world problems; research design is the plan for the application of accepted practices; and research methods provides models for the appropriate collection, organization, and analysis of unbiased data for decision making, replication, and to contribute to the knowledge base.

Learning Outcomes

Upon successful completion of this course, students will be able to

- Explain the rationale for the techniques and theories of formal inquiry in the fields of education based on a summary of the history of scientific research.
- Compare the roles of research in the “hard” “soft” and “meta” sciences.
- Discuss the epistemological issues of educational research.
- Analyze the purposes and requirements of designing and implementing a research study.
- Demonstrate an understanding of the ethics and standards of research.
- Analyze and use the process to assure human rights protection.
- Demonstrate knowledge of independent and dependent variables.
- Develop and analyze research questions relating to a specific research problem.
- Understand and apply the steps required to create a literature review.
- Distinguish and apply literature from preliminary, primary, and secondary sources.
- Evaluate the strengths and weaknesses of experimental and quasi-experimental designs.

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- Select and apply appropriate research designs for quantitative and qualitative research.
- Locate and review research literature relating to your research.
- Compare and contrast the applications of various quantitative research designs.
- Compare and contrast the applications of various qualitative research designs.
- Assess the worth of collected data and information to answer research questions.
- Analyze and critique the purpose, literature review, design, and data collection methods in research articles.
- Discuss research outcomes that add to a specific knowledge base and contribute to theory.
- Understand research proposal planning and development.

Required Texts

The following core textbooks are required for use in all of the Applied Research courses and provide excellent references for conducting dissertation research:

Gall, M. D., Gall, J. P., & Borg, W. R. (2006). *Educational research: An introduction* (8th ed.). Boston: Pearson Allyn & Bacon. ISBN: 0205488498

Creswell, J. W. (2002). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Beverly Hills, CA: Sage. ISBN: 0761924418

Lyne, L. S. (2003). *A Cross Section of Educational Research: Journal articles for discussion and evaluation* (2nd ed.). Los Angeles, CA: Pyrczak. ISBN: 1884585299

American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author. ISBN: 1557987912

Course Units

The course will be divided into the following four units:

Unit 1: The Scientific Approach to Research and Epistemology

Assigned Readings:

Gall, Gall, & Borg:

Ch. 1: The Nature of Educational Research

Creswell:

Ch. 1: A Framework for Design

Ch. 2: Review of the Literature

Ch. 3: Writing Strategies and Ethical Considerations

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Unit 2: Research Design

Assigned Readings:

Gall, Gall, & Borg:

Ch. 2: Developing a Research Proposal

Ch. 3: Ethical, Legal, and Human Relations Issues in Educational Research

Ch. 4: Reviewing the Literature

Creswell:

Ch. 4: Designing Research

Ch. 5: The Introduction

Ch. 6: The Purpose Statement

Unit 3: Quantitative and Qualitative Research Designs

Assigned Readings:

Gall, Gall, & Borg:

Ch. 10: Descriptive and Causal-Comparative Research Designs

Ch. 11: Correlational Research Designs

Ch. 12: Experimental Research Designs, Part 1

Ch. 13: Experimental Research Designs, Part 2

Ch. 14: Case Study Research

Ch. 15: Qualitative Research Traditions

Ch. 16: Historical Research

Creswell:

Ch. 7: Research Questions and Hypotheses

Ch. 8: The Use of Theory

Unit 4: Methods for Data Collection

Assigned Readings:

Gall, Gall, & Borg:

Ch. 7: Collecting Research Data with Tests and Self-Report Measures

Ch. 8: Collecting Research Data with Questionnaires and Interviews

Ch. 9: Collecting Research Data through Observation and Content Analysis

Creswell:

Ch. 9: Quantitative Methods

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Ch. 10: *Qualitative Procedures*

Ch. 11: *Mixed Methods Procedures*

Required Assignments

Achievement of the learning outcomes will be assessed using the following 100-point scale:

Unit 1 Assignments	Total Points = 20
Unit 2 Assignments	Total Points = 20
Unit 3 Assignments	Total Points = 20
Unit 4 Assignments	Total Points = 20
Final Project: Presentation on Research Topic	Total Points = 20

Unit 1: *Complete “writing exercises” from Creswell text, pages 24, 47, 68.
Complete “factual questions” from Article 1 in the Lyne text.

Unit 2: *Complete “writing exercises” from Creswell text, pages 85, 103, 117.
Complete “factual questions” from Article 2 in the Lyne text.

Unit 3: *Complete “writing exercises” from Creswell text, pages 140, 151.
Complete “factual questions” from Article 3 in the Lyne text.

Unit 4: *Complete “writing exercises” from Creswell text, pages 176, 206.
Complete “factual questions” from Article 4 in the Lyne text.

Final Project: PowerPoint presentation posted to WebCT. This is a synthesis of all course assignments related to the student’s initial research topic (no more than 10 PowerPoint slides).

***Rather than emailing the instructor all the “writing exercises” from the Creswell text, students will post these exercises to the WebCT discussion area by the assigned due date.**

Note: If the project selected for this assignment is the applied dissertation, students are advised to communicate with their dissertation chairs to ensure their final product can be readily modified for submission as a concept paper draft.

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Grading

“A” Represents truly superior performance. To receive this grade, papers should be professionally written and contain a very high level of content coverage. Presentations and projects should have a breadth and depth of coverage, comprehensiveness, and accuracy that demonstrate considerable effort and thought on the part of the author. Projects earning an “A” should contain new perspective and original thought. Presentations earning an “A” should be graphically and visually outstanding in addition to containing high-quality content.

(91-100) = 4.0

“B+” For assignments that are highly meritorious on most criteria. “B+” grades indicate a breadth and depth of coverage, even though a few aspects of the assignment may be somewhat weak.

(86-90) = 3.5

“B” Indicates acceptable performance on an assignment or in the course and that the content and coverage are appropriate.

(80-85) = 3.0

“F” No credit.

“I” Incomplete

Any students encountering difficulties completing the readings, assignments, and projects required in the course should immediately contact the professor to discuss eligibility for requesting a grade of incomplete (I). To qualify for an incomplete, a student must first request the professor’s approval, who will stipulate the requirements and a timeline to satisfy the course’s requirements. Failure to submit assignments and projects when due will result in an automatic “F” unless an incomplete has been approved and documented by your professor.

Any grade below “B” indicates minimal requirements were not met, and the student may be asked to revise and resubmit the assignment.

Students will be allowed one rewrite or resubmission of assignments, at the discretion of the instructor. The highest grade for a rewritten paper or resubmitted project is “B.”

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Appendix A

Suggested Supplementary Texts

- Donovan, T., & Hoover, K. R. (2000). *The elements of social scientific thinking* (7th ed.). New York: St. Martin's Press.
- Galvan, J. (1999). *Writing literature reviews*. Los Angeles, CA: Pyrczak.
- Glesne, C. (1999). *Becoming qualitative researchers: An introduction* (2nd ed.). New York: Addison, Wesley, Longman.
- Haller, E. J., & Kleine, P. F. (2001). *Using educational research: A school administrator's guide*. New York: Addison, Wesley, Longman.
- Huck, S. W., Cormier, W. H., & Bounds, W. G., Jr. (1995). *Reading statistics and research* (2nd ed.). New York: Harper.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental design for generalized causal inference*. Boston: Houghton Mifflin.
- Trochim, W. M. K. (2001). *The research methods knowledge base* (2nd ed.). Cincinnati, OH: Atomic Dog. <http://trochim.human.cornell.edu/kb/contents.htm>