George Mason University
Graduate School of Education
Program: Special Education
Fall 2008

EDSE 590: Research Methods in Special Education
Instructor: Carolyn Iguchi
Email: chollan2@gmu.edu; iguchic@gmail.com
Phone: 703-628-3187
Office Hours: Before class, from 4:15 – 4:30 and by appointment

Course Description
The purpose of this course is to describe fundamental concepts and practices in educational research in special education. Specific applications of educational research methods to problems in special education will be covered. Emphasis is on reviewing and critiquing special education research, and applied classroom research for teachers.

Student Outcomes
Upon completion of this course, students will be able to:
- Identify and understand different models of educational research suitable for different research purposes in special education
- Describe and discuss basic theories and methods of quantitative experimental and quasi-experimental research in special education
- Describe and discuss basic theories and methods of survey research in special education
- Describe and discuss basic theories and methods of single-subject research in special education
- Describe and discuss basic theories and methods of qualitative research in special education
- Describe and implement teacher applications of classroom research to address specific classroom problems.

Relationship of Courses to Program Goals and Professional Organizations
EDSE 590 is part of the George Mason University, Graduate School of Education, and Special Education Masters Degree Program.

Nature of Course Delivery
Learning activities include the following:
1. Class lecture, discussion, and participation.
2. Videotapes and other relevant media presentations.
3. Study and independent library research.
4. Applications with relevant hardware and software.
5. Application activities.
6. Class presentations of papers and research projects.

Representative Required Texts
McMillan, J.H. (2008). *Educational research: Fundamentals for the consumer* (5th ed.). Reading, MA: Addison-Wesley Longman.

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

Other readings relevant to special education applications assigned by instructor.

NOTE:
This syllabus may change according to class needs.
If you need course adaptations or accommodations because of a disability or if you have emergency medical information to share with instructor or need special arrangements, **please call and/or make an appointment with instructor as soon as possible.**

Evaluation

1. Quantitative article critique (10%)
2. Qualitative article critique (10%)
3. Final research paper (45%)
4. Research presentation (5%)
5. Group Project (15%)
6. Homework and participation (15%)

Assignments will not be accepted late unless an arrangement has been agreed upon with the instructor beforehand.
Written assignments should reflect a quality of writing fitting master's level work. Assignments with excessive errors of written expression including errors in spelling, grammar, clarity, and APA formatting will be returned for revision with a 10 percent grade penalty.

It is recommended that students retain copies of all course products to document their progress through the GSE MR program. Products from this class can become part of your individual professional portfolio used in your portfolio classes that documents your satisfactory progress through the GSE program and the CEC performance based standards.

Grading criteria
92 –100% = A
90 – 92% = A-
80 – 89% = B
70 – 79% = C
< 70% = F

ASSIGNMENTS

*Article Critiques: Critique 1 – Due October 2nd; Critique 2 – Due October 16th

Each student is required to prepare two article critiques based on articles that support your chosen research topic. One article critique will be based on a qualitative research article, the other on a quantitative research article. Research articles should be selected from peer reviewed journals. The purpose of an article critique is to briefly summarize the article (including the background, methodology and findings) and to evaluate the researcher's methodology, findings and conclusions. The article critiques may not be longer than 3 pages (1 to 2 pages for summary of methodology, findings, and conclusions, and 1 page of critique).

The critique should address the following components:

- The problem
- The experimental methodology
- The findings/results
- The conclusions (include implications or applications)
- Your critique of the experimental methodology, findings and discussion of implications

The article critique should (a) include an APA formatted cover page, (b) be 3 pages (excluding cover and reference page), typed, double-spaced, and in APA format, and (c) include reference information on a separate page in APA format.

The reading guides starting on page 362 in McMillan will serve as a useful tool for evaluating the quality of the study and forming the basis for the critique.

Final Research Paper: Due November 13th

Students will write a research proposal the appropriate experimental methodology for their research question(s). The paper will be in APA format and include the following sections: literature review, participants, materials, measures, procedure, and validity and limitations.

Literature Review

The purpose of the literature review is to introduce the reader to the research question, strategically explore previous research in this area, and argue for the rational of the present study. Students should cite at least ten articles published in peer reviewed journals in the literature review.

Participants

The participant section should provide a description of the participants sufficient to allow for study replication. Important variables include sex, age, race/ethnicity, and other characteristics important to inclusion in the study (ex. disability type, grade level, IQ). If relevant to the study, give a description of the geographic region/school district characteristics. This section also explains the procedure for

participant selection and procedures for assigning participants to treatment or control group (for true experimental studies).

Materials

This section provides a description of all materials used in the study. Full copies may be included as appendices if available.

Measures

The measures section offers a thorough description of the operational definition of each variable in the study and how it will be assessed. Published measures must be correctly cited. It is often useful to give one or two sample questions. If available, a full copy of published measures may be included in the appendix. If you are creating your own measure, you must include a full copy as an appendix. For qualitative research, a full description of the method for data collection (observations or interviews) should be included here.

Procedure

The procedure section starts with a brief description and rationale for the type of research methodology used. Thoroughly describe **each step** in the execution of the research. Summarize or paraphrase instructions (if applicable). The description of the procedure should be sufficient to allow for **exact replication** of the study.

Validity and Limitations

In this section, students must address potential threats to internal and external validity, providing a plan to control for these threats. The student must also address the limitations of the current study and recommendations for future research that would address these limitations.

Research Presentations: November 13th

Students will prepare a 5 to 10 minute PowerPoint presentation of their proposed research. Presentations should include a brief justification of the study based on the research included in the literature review, the research question(s), and an overview of each element of the method section.

Research Methodologies Group Project

The class will be divided into five groups to become 'experts' on a particular research methodology. Each group will create interactive learning activities for the class to reinforce their research methodology. Each group will have 45 minutes to conduct their learning activities. Groups will be evaluated on their grasp of the research methodology, effectiveness of activities as teaching tools, and creativity.

Group A: True Experimental Research – October 9th
Group B: Qualitative Research – October 16th
Group C: Quasi-Experimental Research – October 23rd

Group D: Nonexperimental Research, Descriptive Research and Comparative Research – October 30th
Group E: Nonexperimental Research, Correlational Research and Causal Comparative Research – October 30th

*These assignments are probable entries for the student portfolio

Course Schedule

A detailed course schedule and lecture notes are posted at the course website: iguchiresearchmethods.googlepages.com

The course schedule is subject to change to meet the needs of the class. Students should regularly log onto the course website for updates.