

George Mason University
College of Education and Human Development
Program: Special Education

Course Title: EDSE 590- B01 – Research Methods in Special Education

Instructor: Carolyn Iguchi, Ph.D., Adjunct Faculty

Office Hours: Before class and by appointment

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Credit Hours: 3

Course Days: Mondays and Wednesdays, June 4, 2012- July 25, 2012

Location: Innovation Hall, 205 **Course Time:** 4:30 to 7:10 PM

Course Description: Describes fundamental concepts and practices in educational research in special education. Covers specific applications of educational research methods to problems in special education. Emphasizes review and critique of special education research, and applied classroom research for teachers.

Nature of Course Delivery: Learning activities include the following:

- Class lectures, slides, discussions, activities & active participation
- Study and independent library research
- Videos & other relevant media presentations
- Application activities
- Presentation of research article papers and research projects

Student Outcomes: Upon completion of this course, students will be able to:

- Identify and understand different methods 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 application of classroom research to address specific classroom problems.

Relationship of Course to Program Goals and Professional Organizations

EDSE 590 is part of the George Mason University, Graduate School of Education, Special Education Masters Degree Program. This program aligns with the standards for teacher licensure established by the Council for Exceptional Children, the major special education professional organization in the United States. As such, the curriculum for this course includes competencies for teaching students with disabilities from preschool through grade 12. The CEC Standards are listed on the following web site: http://www.cec.sped.org/ps/perf_based_stds/common_core_4-21-01.html

Required access to the class Organization, via my Mason

This course uses a Blackboard-like Organization. This provides access to most of the assigned readings and other links of interest. Click on the Organizations tab at <https://mymasonportal.gmu.edu/webapps/portal/frameset.jsp> . You must be enrolled in the Organization to have access. Email Dr. Henderson immediately if you cannot access it.

College of Education and Human Development Student Expectations

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. <http://cehd.gmu.edu/values/>

Students must adhere to the guidelines of the George Mason University *Honor Code* [See <http://academicintegrity.gmu.edu/honorcode/>].

Students with disabilities who seek *accommodations* in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].

Students must follow the university policy for *Responsible Use of Computing* [See <http://universitypolicy.gmu.edu/1301gen.html>].

Students are responsible for the content of *university communications* sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.

Students must follow the university policy stating that all *sound emitting devices* shall be turned off during class unless otherwise authorized by the instructor.

Students are expected to exhibit *professional behaviors and dispositions* at all times.

Additional Student Expectations:

TaskStream submission:

Every student registered for any EDSE course as of the Fall 2007 semester is required to submit signature assignments to TaskStream (regardless of whether a course is an elective, a one time course or part of an undergraduate minor). TaskStream information is available at <http://gse.gmu.edu/programs/sped/>. Failure to submit the assignment to TaskStream will result in

reporting the course grade as Incomplete (IN). Unless this grade is changed, upon completion of the required submission, the IN will convert to a F grade nine weeks into the following semester.*

APA Formatting Guidelines: <http://www.apastyle.org/>

All papers are to be completed using style and formatting consistent with the APA manual, 6th edition. This website is offered as a companion to the APA style manual. However, it should not be considered a substitute for directly consulting the APA manual, 6th edition for the standard procedures for applying APA style.

Campus Resources:

The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].

The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].

Required Textbooks:

American Psychological Association (2009). *Publication manual of the APA (6th ed.)*. Washington, DC: Author.

McMillan, J.H. (2012). *Educational research: Fundamentals for the consumer (6th ed.)*. Boston: Pearson Education.

It is highly recommended that students bring the McMillan textbook to class each week as the instructor may make specific reference to it during class.

Other reading relevant to special education research applications will be assigned by the instructor as appropriate.

Course Requirements, Performance-Based Assessment, and Evaluation Criteria:

Evaluation

1. Article Analysis Papers (30%, 15% each)
2. Class Attendance and Participation (10%)
3. Reading Quizzes (15%)
4. Final research paper (40%)
5. Research presentation (5%)

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

Points will be deducted for assignments not submitted on time. Generally, points equal to one letter grade are deducted for each class session past due. Final papers will not be accepted late.

ASSIGNMENTS

Reading Quizzes

Students will complete at least three brief quizzes on the reading and lecture material at the end of class lecture. The quizzes will be unannounced. Reading quizzes can not be made up.

Article Analyses

Each student is required to submit two article analysis papers during the course of the semester based on a published academic research article that utilized the methodologies we will be studying. The purpose of this assignment is for students to learn to assess the quality of published educational research and to distill the most pertinent information.

Students will select a research article published in the last 5 years from a peer-reviewed academic journal. Students may use articles that will be included in the literature review for their final research paper. The article selected must use the appropriate type of research methodology. Article analysis papers based on the incorrect methodology will not be accepted for credit.

The paper will start with a brief summary of the research problem, participants, experimental methodology, and findings (approximately 2 pages). This summary will be followed by an assessment/critique of the article (approximately 1 page). One of the key aspects of this assignment is to teach students to communicate the most important information from the study; therefore, there is a **strict three page limit** for the paper.

The focus of the critique will depend on the specific article. Students should refer to McMillan's guidelines for assessing published research. For example, the critique may examine several of the following elements:

- (1) The fit between the research problem and the research methodology or design
- (2) Appropriate or inappropriate use of data collection instruments
- (3) The author's attention to rigorous data collection procedures and data analysis
- (4) Apparent flaws in execution of the research
- (5) Quality of sampling procedure, description of participants or inclusion criteria for participants

Papers will be evaluated on selection of an appropriate research article, clarity of written expression, demonstration of understanding of the research methodology and execution, thorough assessment of the strengths and weaknesses of the article, and correct usage of APA formatting.

Paper Format:

- APA formatted cover sheet
- Article assessment (3 pages)
- APA formatted reference page

Final Research Paper*

For the final signature assignment, students will develop a research question relevant to the field of special education and write a research proposal that will describe how to carry out a study to answer their question. *Actual data collection and analysis is not required for this assignment.* The research proposal paper will follow the appropriate experimental methodology for the research question. The paper will be formatted according to the APA manual and include the following sections: literature review, methods, and validity and limitations. Papers will be approximately 10 to 15 pages in length.

Students have the option to work with a partner on this assignment. Students will prepare the paper and present their final paper presentation jointly.

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 five articles published in peer reviewed journals in the literature review. The literature review should include the following components: a broad introduction to the research problem, a focused assessment and integration of previous research to provide justification for the present study, a statement of the research questions, and research hypotheses. Students will be evaluated on clarity of written expression, strong justification of the significance of the research problem, thorough assessment of published research with strong integration of the research to establish a foundation for the proposed study, and strength of research questions according to the criteria established by McMillan. A thorough literature review is typically 4-6 pages in length.

Methods

The methods sections will contain the following subsections: participants, measures, and procedure.

The participants section should include (a) a description of the population being examined, (b) a plan for selecting the sample from the population, (c) a rationale or justification of why the sampling method was selected, and (d) a hypothetical description of the participants selected. The description of the participants should include demographic data relevant to the proposed study.

The measures section will describe the key variables examined in your research and the materials or measures used to collect data on these variables. The description of the variables will contain both conceptual and operational definitions and specify both dependent and independent variables. In the description of the materials, APA formatted citations must be included for published measures.

The procedure section starts with a description of the specific type of research methodology and a justification for this research methodology based on your research question. The procedure section will 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. It may be necessary to include study materials as appendices. The procedure for conducting the study should follow the type of research methodology selected. Students will not be required to collect actual data, but a plan for conducting analysis of the data should be included. Students will be evaluated on the strength of the experimental design.

Validity, Limitations, and Anticipated Results

In this section, students must address potential threats to internal and external validity as described in McMillan. Students will describe how they will address these threats. The discussion of validity should be specific to the type of research methodology selected. The student must also address the limitations of the current study and provide recommendations for future research that would address these limitations. The paper will conclude with a statement of the predicted results.

Scoring Rubric

A detailed scoring rubric will be provided by the instructor. Work will be evaluated on content, writing style and clarity, and adherence to APA formatting standards.

Research Presentations

Students will prepare a brief PowerPoint presentation to share their research proposal with their peers. A successful presentation will contain the following: (a) key findings from previous research as outlined in the literature review, (b) the research question(s), (c) a brief description of the participants, (d) a brief description of the study procedure, and (e) predicted findings. Presentations should be well organized and visually appealing. Presentations should be no longer than 10 minutes per student.

*These assignments are probable entries for the student portfolio

EDSE590 Summer 2012 Course Schedule

*Schedule is subject to change to meet the needs of the class.

- I. June 4
 - a. Topics
 - i. Introduction to Research in Education
 - b. Reading: N/A
 - c. Assignments due: N/A
- II. June 6
 - a. Topics
 - i. Research Problems, Variables, and Hypotheses
 - b. Reading
 - i. McMillan Chapter 1
 - ii. McMillan Chapter 2
 - c. Assignments due
 - i. Make sure your GMU email account is active and checked regularly or forwarded to another email account. The email ID and password are necessary for using library resources and for class communication.
- III. June 11
 - a. Topics

- i. The Literature Review
 - b. Reading
 - i. McMillan Chapter 3
 - c. Assignments due
 - i. Develop two researchable questions as potential topics for the final paper. Bring your questions to class for peer feedback. (Completion of assignment counted toward Attendance/Participation grade)
- IV. June 13
 - a. Topics
 - i. Participants, Subjects and Sampling
 - b. Reading
 - i. McMillan Chapter 4
 - c. Assignments Due
 - i. Email instructor final research paper topic and revised research question for approval by 12 am the *night before* our class meeting. (completion of assignment counted toward Attendance/Participation grade)
 - ii. Schedule two hours to devote to searching for relevant literature on your final paper topic. Bring to class the citations and abstracts for the articles you identified. The emphasis at this point is quantity over quality – you can weed out studies that will not work for your literature review later.
- V. June 18
 - a. Topics
 - i. Educational Measurement
 - b. Reading
 - i. McMillan Chapter 5
 - c. Assignments Due
 - i. Bring to class the participants section of your final paper in draft form.
- VI. June 20
 - a. Topics
 - i. Data Collection Techniques
 - b. Reading
 - i. McMillan Chapter 6
- VII. June 25
 - a. Topics
 - i. Nonexperimental Quantitative Research Designs
 - b. Reading
 - i. McMillan Chapter 7
 - c. Assignments Due
 - i. Bring to class the measures section of your final paper in draft form.
- VIII. June 27
 - a. Topics
 - i. Experimental Research Designs
 - b. Reading
 - i. McMillan Chapter 8
 - c. Assignments Due
- IX. July 2
 - a. Topics
 - i. Qualitative Research Designs

- b. Reading
 - i. McMillan Chapter 10
- c. Assignments Due
 - i. True-Experimental Article Analysis Paper, submit electronically by the start of class
- X. July 4 – NO CLASS MEETING, HAPPY INDEPENDENCE DAY
- XI. July 9
 - a. Topics
 - i. Mix-Method and Action Research
 - b. Reading
 - i. McMillan Chapters 11 and 12
- XII. July 11
 - a. Topics
 - i. Discussion and Conclusions
 - b. Reading
 - i. McMillan Chapter 13
 - c. Assignments Due
 - i. Qualitative Research Article Analysis Paper, submit electronically by the start of class
 - ii. Bring to class the procedures section of your final paper in draft form
- XIII. July 16
 - a. Topics
 - i. APA Style/Formatting Workshop
 - ii. Review of validity and limitations for the final paper
 - b. Reading
 - i. Familiarize yourself with the structure of the APA manual
 - ii. Read all of chapters 2 and 3 and section 6.01 on plagiarism
- XIV. July 18
 - a. Topics
 - i. Writing workshop
 - b. Assignments due
 - i. Schedule three hours to work on the literature review section of your final paper
 - ii. Bring to class what you have completed on the final paper to date for peer review workshop
- XV. July 23
 - a. Assignments Due
 - i. Group A Presentations
- XVI. July 25
 - a. Assignments Due
 - i. Group B Presentations
 - ii. Final Papers due electronically by midnight