GEORGE MASON UNIVERSITY
College of Education and Human Development

SYLLABUS

EDSE 842.001: Applications of Research Methodology in Special Education

Spring, 2010

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Office Hours
Krug Hall, Rm. 110E
Tuesdays, 4:00 – 6:00
Thursdays, 3:00 - 4:15
or by appointment

Time, Date & Room
Tuesdays, 7:20-10:00
Innovation 317

Purpose

The purpose of this seminar is for students to develop their understanding of research methodology, and its application in special education research. Upon completion of the course, students should be able to:

1. Describe the strengths and limitations of single subject research designs in special education research.
2. Describe basic procedures involving single subject research designs.
3. Evaluate previous research that has employed single subject research methodology.
4. Design future special education research using single subject methodology.
5. Describe the strengths and limitations of qualitative research designs in special education research.
6. Evaluate previous research that has employed qualitative research methodology.
7. Design future special education research using qualitative methodology.
8. Describe the strengths and limitations of survey research designs in special education research.
9. Evaluate previous research that has employed survey research methodology.
10. Design future special education research using survey methodology.
11. Describe the strengths and limitations of group-experimental research designs in special education research.
12. Describe basic procedures involving group-experimental research designs.
13. Evaluate previous special education research that has employed group-experimental research methodology.
GSE Syllabus Statements of Expectations

The Graduate School of Education (GSE) expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. See [http://gse.gmu.edu](http://gse.gmu.edu) for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See [http://www.gmu.edu/catalog/apolicies/#TOC_H12](http://www.gmu.edu/catalog/apolicies/#TOC_H12) for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See [http://mail.gmu.edu](http://mail.gmu.edu) and click on Responsible Use of Computing Policy at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See [www.gmu.edu/student/drc](http://www.gmu.edu/student/drc) or call 703-993-2474 to access the DRC.

Requirements

1. Class attendance and participation in discussion and group activities.
2. Four written method sections, using single-subject, qualitative, survey, and group-experimental or quasi-experimental methodology. 5-7 page max., double--spaced, for each proposal (NOT including title page, abstract, and references), APA (6th ed.) format. Subheadings should ordinarily include the following:
   - Background literature (brief)
   - Participants
   - Data sources
   - Materials
   - Procedures
   - Data analysis
   - Anticipated results
3. Midterm and final exams of methodological knowledge and skills.

   Evaluation (see rubrics)

   1. Attendance/participation: 10 points
   2. Method sections: 40 points (4 @ 10 points each)
   3. Midterm: 20 points
   4. Final: 30 points
   100 points
**Grading Scale:**

- **A** 94 – 100 points
- **A-** 90 – 93 points
- **B+** 86 – 89 points
- **B** 82 – 85 points
- **B-** 79 – 81 points
- **C** 78 points and below

**Required Access to Course Blackboard Site**

Blackboard will be used to post important information for this course. Plan to access the Bb site several times per week; announcements and resources are posted on the Bb site in between class sessions. You are responsible for accessing the materials – for printed copies, etc. prior to class. [http://courses.gmu.edu](http://courses.gmu.edu) Click the Login tab. Your Login and password is the same as your George Mason e-mail login. Once you enter, select EDSE 842 course.

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**Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Week 1, 1/19</td>
<td>Introduction/Organization: Pretest; research traditions; common methodological concerns; nomothetic vs ideographic methods; causation; internal and external validity; dependent and independent variables; the problem of induction;</td>
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<td>Week 2, 1/26</td>
<td>Single-subject research: Designs and methodological concerns. Read by Tonight’s class: Horner et al. (2005); Hughes et al. (2002); Marckel, Neef, &amp; Ferreri (2006).</td>
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<td>Week 4, 2/9</td>
<td>Single-subject research III. Applications, randomization tests. Read by tonight’s class: Regan, Mastropieri, &amp; Scruggs (2006); Scruggs, Mastropieri, &amp; Regan (2005).</td>
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<tr>
<td>Week 6, 2/23</td>
<td>Qualitative research designs II. Applications, data analysis follow up regarding Nvivo. Read by tonight’s class: Berry (2006) (particularly pp. 499-514); Seo, Brownell, Bishop, &amp; Dingle (2008); Harry, Klingner, and Hart (2005).</td>
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<tr>
<td>Week</td>
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<td>SPRING BREAK</td>
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<tr>
<td>8, 3/16</td>
<td>Survey research. Methods. Read by tonight’s class: Cutler and Graham (2008); Repie (2005); Guest speaker: Dr. Mike Repie. Method section II due.</td>
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<td>9, 3/23</td>
<td>Survey research II. Applications, synthesis; Read by tonight’s class: Praisner (2003); Scruggs &amp; Mastropieri (1996).</td>
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<td>3/30</td>
<td>Group-experimental research. Assumptions of ANOVA; threats to validity; random assignment. Read by tonight’s class: Gersten et al. (2005); Sullivan, Mastropieri, &amp; Scruggs (1994). Guest Speaker: Tom Scruggs</td>
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<td>4/20</td>
<td>CEC convention</td>
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<td>4/27</td>
<td>Group-experimental research IV. Ceiling and floor effects; one within/one-between designs; multiple statistical tests; crossover designs. Read by tonight’s class: Mastropieri, Scruggs, Spencer, &amp; Fontana (2003); Simpkins, Scruggs, &amp; Mastropieri (2009). Guest presenter: Dr. Pam Simpkins.</td>
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<td>5/4</td>
<td>Group-experimental research V. Unit of analysis; factorial designs; crossover designs. Read by tonight’s class: Mastropieri et al. (2006); Sáenz, Fuchs, &amp; Fuchs (2005). (make up for 4/20)</td>
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<tr>
<td>5/12</td>
<td>Method section IV due. Final exam due.</td>
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**Required Readings**


*Most articles are available on-line and/or via Blackboard. Read PDF versions whenever possible. For each research article, be prepared in class to discuss each of the following:

- What was the purpose of the investigation?
- What were the research questions?
- What, if applicable, the dependent variable(s) and independent variable(s)?
- Who were the participants?
- What were the data sources?
- What materials were employed?
- What were the research procedures?
- What were data analysis procedures?
- What conclusions were drawn?
- What were the limitations of the investigation?
- How could you replicate and extend this study (e.g., for your dissertation)?
For non-research, methodological papers, be prepared in class for each of the following:

- What is the **purpose** of the article?
- What are the **major points** under each subheading?
- How can the article be **summarized**?
- How is this article **useful** in planning/designing research?

**Recommended Resources**


RUBRIC FOR MID-TERM (10 items) AND FINAL (15 items) EXAMINATIONS (50 points total)

For each test item:

**Exemplary response** (2 points): Provides direct and thorough response to question, defines relevant terms, and provides specific examples or instances of the concepts being discussed. Answer is directly reflective of lecture, readings, activities, or assignments, or other material of direct relevance to class.

**Adequate response** (1.5 point): Provides direct and relevant response to question, provides accurate information directly relevant to class readings, notes, or activities. May provide less information, less elaboration, or a less thoughtful overall response than an exemplary response.

**Marginal response** (1 point): Provides some relevant information, but does not demonstrate overall a clear or complete understanding of the relevant concepts.

**Inadequate response** (.5 - 0 points): Weak response that does not appear to reflect course content or activities. May include inaccurate information.

METHOD SECTION ASSIGNMENT (4 @ 10 points each)

This course requires students to write four research method sections employing single subject, qualitative, survey, and group-experimental/quasi-experimental research methodology (5 – 7 page maximum, double-spaced, NOT including title page, abstract, and references). Each paper should employ APA format (see sample paper on pp. 40 – 59 of the APA manual) and contain sections similar to the following:

Introduction, brief literature review (1-2 page)
  - Purpose
  - Research questions
Method (3-4 pages)
  - Research design
  - Participants and setting
  - Materials
  - Data sources; dependent variables
  - Procedures (proposed methods for data collection)
  - Data analysis
(Anticipated) Results (where relevant) (1 page)
Discussion
RUBRIC FOR METHOD SECTION ASSIGNMENTS

Exemplary paper (10 points): Appropriate topic, clearly and directly written, thorough description of participants, data sources, and procedures. Adequate design, analysis, and general understanding/interpretation of the relevant methodology; good writing style, free of mechanical or stylistic errors, appropriate and correct use of APA format.

Adequate paper (9-8 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely clear and thorough, and/or may have neglected specific components relevant to the relevant methodology; minor writing style or APA format errors may be present.

Marginal paper (7 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with the evaluation, writing style/APA format, or unclear or inappropriate description of methodology.

Inadequate paper (1-6 points): Paper with substantial problems in important areas such as writing, description of participants, data sources, procedures, data analysis, or overall thoughtfulness. Contains little or no information of value to the field of education.

Unacceptable/no paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all.

RUBRIC FOR PARTICIPATION AND ATTENDANCE (10 points)

Exemplary (10 points): The student attends all classes, is on time, is prepared and actively participates and supports the members of the learning group and the members of the class. The student asks thoughtful, good questions and speaks up when concepts are not clearly understood.

Adequate (9-8): The student attends all classes, is on time, is prepared and follows outlined procedures in case of unavoidable absence; the student makes contributions to the learning group and class when prompted. May be occasionally unprepared and/or displays limited participation.

Marginal (7 points): The student is absent from class and/or frequently late to class, often not prepared, does not contribute actively to class discussions, demonstrates a disinterest in the material/discussions.

Inadequate (6 or fewer points): The student is often late or absent for class. The student is not prepared for class and does not actively participate in discussions. May fail to exhibit professional behavior and dispositions.