GEORGE MASON UNIVERSITY
GRADUATE SCHOOL OF EDUCATION

SYLLABUS

EDSE 842: Applications of Research Methodology in Special Education

Professor
Thomas E. Scruggs, Ph.D.

Office Hours
Mondays, 2:00 - 4:00
Thursdays, 4:30 – 7:00
or by appointment
tscruggs@gmu.edu
Robinson A 253

Time, Date & Room
Thursdays, 7:20-10:00p
Innovations 318

Purpose

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

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

Students must agree to abide by the university policy for Responsible Use of Computing. See http://mail.gmu.edu and click on Responsible Use of Computing 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 or call 703-993-2474 to access the DRC.

**Requirements**

1. Class attendance and participation in discussion and group activities.
2. Written research proposal, using group-experimental or quasi-experimental, single-subject, qualitative, or survey methodology, 20-page maximum (including title page and references), APA (5th ed.) format. Subheadings include purpose, background, hypotheses, method, participants, procedures, and significance. For this course, the method section is of the most importance.
3. Presentation of proposal (20 minutes).
4. Pre-test, midterm, and post-test of methodological knowledge.

**Evaluation (see rubrics)**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Points</th>
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<tbody>
<tr>
<td>Attendance/participation</td>
<td>15</td>
</tr>
<tr>
<td>Proposal</td>
<td>30</td>
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<tr>
<td>Presentation</td>
<td>10</td>
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<tr>
<td>Midterm</td>
<td>18</td>
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<tr>
<td>Final</td>
<td>27</td>
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</tbody>
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Total: 100 points

**Grading:**

- 100-95 A
- 94-90 A-
- 89-86 B+
- 85-80 B
- 79-70 C
## Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Week 1, 9/1</td>
<td>Introduction/Organization: Pretest; “How do you know?”; Common methodological concerns; causation; internal and external validity; dependent and independent variables; the problem of induction; number systems.</td>
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<tr>
<td>Week 4, 9/22</td>
<td>Group-experimental research III: Ceiling and floor effects; one within/one-between designs; multiple statistical tests. Read Gersten et al., 2005; Scruggs, Mastropieri, and Sullivan (1994); Sáenz, Fuchs, and Fuchs (2005).</td>
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<td>Week 5, 9/29</td>
<td>Group-experimental research IV: Quasi-experimental designs; comparative designs for pre-existing groups; “proving” the null hypothesis. Read Cullinan, Osborne, and Epstein (2004); Mastropieri, Scruggs, Spencer, and Fontana (2003); Nougaret, Scruggs, and Mastropieri (2005).</td>
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<td>Week 6, 10/6</td>
<td>Group-experimental research: Summary and SPSS activities. Midterm (#1-12) exam due.</td>
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<td>Week 7, 10/13</td>
<td>Single-subject research: Designs and methodological concerns. Read Horner et al. (2005); Hughes, Ruhl, Schumaker, and Deshler (2002); Sawyer, Luiselli, Ricciardi, and Gower (2005).</td>
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<tr>
<td>Week 9, 10/27</td>
<td>Qualitative research designs. Internal and external validity. Read Brantlinger, Jiminez, Klingner, Pugach, and Richardson (2005); Palmer, Fuller, Arora, and Nelson (2001); Snell and Janney (2000).</td>
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<tr>
<td>Week 10, 11/3</td>
<td>Qualitative research designs II: Applications, NVivo activities. Read Rice and Zigmond (2000); Stough and Palmer (2003); Weiss and Lloyd (2002).</td>
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<tr>
<td>Week 13, 11/24</td>
<td>No class; Thanksgiving Recess 😊</td>
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<tr>
<td>Week 14, 12/1</td>
<td>Proposal presentations (proposals due).</td>
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<td>Week 15, 12/8</td>
<td>Proposal presentations.</td>
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</table>
Finals Week 12/15  Proposal presentations.

**Required Readings***


*Most articles are available on-line. Read PDF versions whenever possible.*

**Recommended Resources**


**RUBRIC FOR MID-TERM (12 items) AND FINAL (18 items) EXAMINATIONS (45 points total)**

For each test item:

**Exemplary response** (1.5 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 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** (.5 points): Provides some relevant information, but does not demonstrate overall a clear or complete understanding of the relevant concepts:

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

**PROPOSAL ASSIGNMENT (30 points)**

This course requires students to write a research proposal in the area of the student's choosing (20 pages maximum, including title page and references). It should employ APA format (see sample paper on pp 306-320 of the APA manual) and contain sections similar to the following:

1. **Introduction** (2-3 pages)
   - General statement of problem
   - Background of the problem
   - Significance of the problem
   - Problem (specific)
   - Hypotheses/research questions
2. **Literature review** (previous research) (4-6 pages)
3. **Method** (4-6 pages)
   - Participants and setting
   - Research design
   - Data sources; dependent variables; instrumentation (where relevant)
   - Procedures (proposed data collection and analysis)
   - Anticipated results (where relevant)
Limitations
Importance

RUBRIC FOR PROPOSAL ASSIGNMENT

Exemplary paper (28-30 points): Appropriate topic, thorough and thoughtful review of previous research, appropriate and clearly described implementation procedures, careful measurement and evaluation of results, thorough and appropriate discussion of implications of findings. Good writing style, free of mechanical or stylistic errors, appropriate and correct use of APA format.

Adequate paper (24-27 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style or APA format errors may be present.

Marginal paper (20-23 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style or APA format, or unclear or inappropriate description of implementation of project.

Inadequate paper (1-19 points): Paper with substantial problems in important areas such as writing, proposed implementation of intervention, procedures for evaluation of results, or overall thoughtfulness. Contains little or no information of value to field of education.

Unacceptable/no paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a project of no value that was not approved for this assignment.

RUBRIC FOR PAPER PRESENTATION (10 points)

Exemplary response (10 points): Keeps within the time limits; reflects poise, clarity, knowledge and interest in the subject and methodology being presented; reflects a high level of preparation; makes effective use of overheads, handouts, demonstrations; describes very clearly the variable(s) under consideration; keeps the audience engaged; provides information of interest and value to audience.

Adequate presentation (8-9 points): Good overall presentation, but may be lacking in one or two of the criteria specified in exemplary response. May seem a little less polished or prepared, may be vague in some place, or may fail to completely engage the audience.

Marginal presentation (6-7 points): Presentation provides relevant information, but demonstrates only a limited understanding of the topic or methodology. Style, handouts, or visual aids may be less than adequate.
Inadequate presentation (1-5 points): Weak overall presentation that reflects very little knowledge of topic or methodology. May appear very poorly prepared, or may not have followed directions. Handouts or visual aids may be inadequate or lacking.

Unacceptable/no presentation (0 points): Completely unsatisfactory presentation, with no reasonable reference to topic or project; or no presentation made.

RUBRIC FOR PARTICIPATION AND ATTENDANCE (15 points)

Exemplary (13-15 points): The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence, the student actively participates and supports the members of the learning group and the members of the class. Asks good questions; speaks up when concepts are not clearly understood.

Adequate (11-12 points): The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence; the student makes contributions to the learning group and class when prompted. May be occasionally unprepared or nonparticipatory.

Marginal (9-11 points): The student is absent from class, often not prepared, does not contribute actively to class discussion.

Inadequate (8 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.