

College of Education and Human Development Division of Special Education and disAbility Research

Fall 2020

EDSE 841 DL1: Evaluating Intervention Research CRN: 77102, 3 – Credits

Instructor: Dr. Sheri Berkeley	Meeting Dates: 8/24/20 – 12/16/20
Phone: email best contact	Meeting Day(s): Thursday
E-Mail: sberkele@gmu.edu	Meeting Time(s): 4:30 pm – 7:10 pm (<i>please</i> log on at least 10 minutes early so the system is not overloaded)
Office Hours: By appointment	Meeting Location: Online
Office Location: Online	Other Phone: N/A

❖ Note: This syllabus may change according to class needs. Teacher Candidates/Students will be advised of any changes immediately through George Mason e-mail and/or through Blackboard.

Prerequisite(s):

Admission to PhD in education program, or permission of instructor.

Co-requisite(s):

None

Course Description

Provides opportunities for in-depth study, analysis, and discussion of original intervention research in special education with students with disabilities or other at-risk populations. Emphasizes analyzing research methodology, coding original intervention research, analyzing results, synthesizing findings, formulating future research questions relevant to special populations, and gaining an understanding of the submission process for conferences and publications.

Advising Contact Information

Please make sure that you are being advised on a regular basis as to your status and progress in your program. Students in Special Education and Assistive Technology programs can contact the Special Education Advising Office at 703-993-3670 or speced@gmu.edu for assistance. All

other students should refer to their assigned program advisor or the Mason Care Network (703-993-2470).

Course Delivery Method

Learning activities include the following:

- 1. Class lecture and discussion
- 2. Application activities
- 3. Small group activities and assignments
- 4. Video and other media supports
- 5. Research and presentation activities
- 6. Electronic supplements and activities via Blackboard

This course will be delivered online (76% or more) using synchronous format via Zoom. An invitation to join each class session will be sent to your George Mason Email. We will also access Blackboard for asynchronous aspects of the course (e.g., assignment submission).

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:

 High-speed Internet access with standard up-to-date browsers. To get a list of Blackboard's supported browsers see: <u>Browser support</u> (https://help.blackboard.com/Learn/Student/Getting <u>Started/Browser Support#supported-browsers</u>)

To get a list of supported operation systems on different devices see: <u>Tested devices</u> and operating systems
(https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#tested
-devices-and-operating-systems)

- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- It is strongly recommended that students use a headset microphone for use with the web conferencing tool.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
 - Adobe Acrobat Reader (https://get.adobe.com/reader/)

- Windows Media Player (https://support.microsoft.com/en-us/help/14209/getwindows-media-player)
- o Apple Quick Time Player (www.apple.com/quicktime/download/)

Expectations

• Log-in Frequency:

Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least 2 times per week. In addition, students must log-in for all scheduled online synchronous meetings.

• Participation:

Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.

• Technical Competence:

Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.

• Technical Issues:

Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.

• Workload:

Please be aware that this course is not self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the Class Schedule section of this syllabus. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

• Instructor Support:

Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.

• Netiquette:

The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words*. Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications. Because discussions are a critical aspect of this course, it is important that you plan to log on in a space free from distractions and are able to turn on audio as required during dialoguing. In addition, the expectation is that cameras will be on for the duration of the class.

• Accommodations:

Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Outcomes

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

- 1. Describe various methodologies used in special education intervention research.
- 2. Demonstrate how to analyze, critique, and synthesize special education intervention research.
- 3. Write syntheses of special education intervention research.
- 4. Describe issues surrounding special education intervention research and identify important intervention researchers.
- 5. Discuss the publication process, including addressing various target audiences and target journals.

Professional Standards

This course is part of the George Mason University, College of Education and Human Development (CEHD), Graduate School of Education, Special Education, CEHD PhD in Education Program. This program complies with university and program standards.

Required Texts

Cooper, Hedges, Valentine (2019). The handbook of research synthesis and meta-analysis (3rd Edition). Sage. ISBN-13: 978-0871540058

Cosby, P. & Bates, S. (2021). Methods in behavioral research (14th Edition). McGRaw Hill. ISBN13: 9781260205589

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). https://doi.org/10.1037/0000165-000

Required Resources

Webinar Series: Systematic Literature Reviews and Meta-Analytic Techniques [registration] <a href="https://www.air.org/event/webinar-series-systematic-literature-reviews-and-meta-analytic-techniques?fbclid=IwAR0OzySQxx7zgUio-techniques?fbclid=IwAR0OzySQxx7zgUio-techniques?fbclid=IwAR0OzySQxx7zgUio-techniques.gduio-techniques.gd

95dZdmli jS6yIUehKkc3kOmiKwr3FX4zA13HvzOuc

- Webinar 1: An Introduction to Systematic Literature Reviews [September 3, 2020 | 1:00 2:15 ET]
- Webinar 2: An Introduction to Meta-Analytic Techniques [September 28, 2020 | 2:30 3:45 ET]

Campbell Collaboration Trainings

- Calculating Effect Sizes Calculating effect sizes, David Wilson https://www.youtube.com/watch?v=Fggs7zOhw6c
- Introduction to meta-analysis, Joshua R. Polanin https://www.youtube.com/watch?v=How7LW7WIFQ&t=608s

Additional Readings

- Gersten, R., Fuchs, L., Compton, D., Coyne, M., Greenwood, C., & Innocenti, M.S. (2005). Quality indicators for group experimental and quasi-experimental research in special education. *Exceptional Children*, 71, 149-164.
- Horner, R.H., Carr, E.G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single subject research to identify evidenced-based practice in special education. *Exceptional Children*, 71, 165-180.
- Kavale, K. A. (2001). Meta-analysis: A primer. Exceptionality, 9, 177-183.
- Mastropieri, M.A., Berkeley, S., McDuffie, K., Graff, H., Marshak, L., Conners, N., Diamond, C.M., Simpkins, P., Bowdey, F. R., Fulcher, A., Scruggs, T.E., & Cuenca-Sanchez, Y. (2009). What is published in the field of special education? An analysis of 11 prominent journals. *Exceptional Children*, 76, 95-109.
- Odom, S.L., Brantlinger, E., Gersten, R., Horner, R.H., Thompson, B., & Harris, K.R. (2005). Research in special education: Scientific methods and evidence-based practices. *Exceptional Children*, 71, 137-148.
- Parker, R. I., Vannest, K. J., & Davis, J. L. (2011). Effect size in single-case research: A review of nine nonoverlap techniques. *Behavior Modification*, 35, 303-322.
- Scruggs, T. E., & Mastropieri, M. A. (2013). PND at 25: Past, present, and future trends in summarizing single-subject research. *Remedial & Special Education*, 34, 9-19.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, VIA, hard copy).

VIA Performance-Based Assessment Submission Requirement

It is critical for the special education program to collect data on how our students are meeting accreditation standards. Every teacher candidate/student registered for an EDSE course with a required Performance-based Assessment (PBA) is required to upload the PBA to VIA (regardless of whether a course is an elective, a one-time course or part of an undergraduate minor). A PBA is a specific assignment, presentation, or project that best demonstrates one or more CEC, InTASC or other standard connected to the course. A PBA is evaluated in two ways. The first is for a grade, based on the instructor's grading rubric. The second is for program accreditation purposes. Your instructor will provide directions as to how to upload the PBA to VIA.

For EDSE 841, the required PBA is (NO ASSESSMENT REQUIRED FOR THIS COURSE). Please check to verify your ability to upload items to VIA before the PBA due date.

Assignments and/or Examinations

Performance-based Assessment (VIA submission required)

Not applicable for this course.

College Wide Common Assessment (VIA submission required)

Not applicable for this course.

Performance-based Common Assignments (No VIA submission required)

Not applicable for this course.

Other Assignments

Assignments	Points I Earned	Points Possible
1. Participation & Homework		10
2. Online Class: Library Tutorials		10
3. Mini Review		25
4. Conference Proposal		10
5. Online Class: CITI Training		10
6. Final Paper—Intervention Research Proposal		25
7. Research site "research pitch" (with Q&A)		10
Total Course Points Earned		100

Participation & Homework (10 points)

Students are asked to attend all classes on time, be prepared, and actively participate and support the members of the class learning community. This includes being prepared for and actively participating in discussions and class activities, and submitting homework (HW) that is complete and on-time. <u>Specific guidance for the content of HW will be provided by the instructor</u>.

Note: In some instances, a class absence is unavoidable. However, course activities are group based and are dependent upon your presence to be meaningful to both you and your classmates. Therefore, a HW submission without your presence will only be allowed on one occasion in the course.

Rubric for Participation & Homework

- Exemplary (10): The student attends all or almost all classes (student may miss one class with notice to instructor), is always on time, and is prepared (including posting HW on time to Blackboard even if absent); and the student actively participates and supports the members of their learning group and the class.
- Adequate (8-9): The student is usually on time, usually prepared for class, and participates in group and class discussions, but may miss participation points due to multiple absences (two absences) and/or failure to prepare for a class activity (including posting HW to Blackboard on time).

- Marginal (7): The student is often late for class and/or misses numerous participation opportunities due to absences (3 or more) or failure to prepare for two class activities (including posting HW to Blackboard on time).
- Inadequate (0 -6 points): The student is frequently late for class. Student misses numerous participation opportunities due to absence (3 or more) or fails to prepare for three or more class activities. Instructor is not notified of absences. The student does not actively participate in discussions. The student may fail to exhibit professional behavior and dispositions. Excessive absences can result in additional penalties and potential withdrawal from class.

ONLINE CLASS: Library Tutorials (10 points)

Students will complete a series of online library tutorials that address fundamentals of research and library resources, including: finding resources, evaluating research, citing research, creating research products, and research ethics. Students will also provide a short update in class. **This assignment will be graded as pass/fail.**

Mini Review (20 points)

Students will conduct a mini systematic review on a topic of their choice and write up findings in manuscript form. The manuscript will contain (a) methods, (b) results (including a literature table) for 3-5 studies, and (c) references. Refer to the APA manual for how to format headings and citations appropriately. The purpose of this assignment is to demonstrate your understanding of the steps for completing a comprehensive systematic review.

Introduction

- o Brief introduction to the topic & literature review.
- o Statement of purpose and research questions.

Methods

- Search Procedures
- o Inclusion/Exclusion Criteria
- Coding Conventions & Procedures

Results

- o Overview of studies located through systematic search
- Narrative description of studies
- o A literature table of reviewed studies that highlights important study characteristics and outcomes.

References

- o References should be listed in APA format.
- o Studies included in the review should be noted with an asterisk.

Rubric for Mini Review

• Exemplary paper (A): Establishes an important educational problem that needs to be addressed, a logical presentation of information that leads to the purpose statement of the paper. Important concepts are defined in this section as well as any background information needed to support search procedures in the methodology. Appropriate topic, thorough and thoughtful review of appropriate literature (this literature should not include studies that are included in your results), a clearly stated purpose statement, and appropriate research

questions that are consistent with the quantitative research methodology. Appropriate and clearly described search and coding procedures (including your plan for establishing interrater reliability, and careful presentation of the findings organized clearly for the readers, and a discussion of the initial findings that is clearly connects findings from the studies included in the review to the existing literature. Papers should include all references (with a notation for studies include in the review) and a research literature table. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

- Adequate paper (B): 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 (C): 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 (D):** 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.

Conference Proposal (10 points)

For this assignment, students will draft a conference proposal based on their mini review following conference proposal guidelines disseminated by the instructor. Feedback will be given by peers in a mock review during class. **The assignment will be graded as pass/fail.**

HSRB CITI Training Module Completion

GMU requires a Mandatory Training for Persons Conducting Research Using Human Subjects. Seven learner modules in the Basic Course are required prior to applying to conduct any research at Mason using human subjects. For this course, you will be required to complete the Basic Course AND two additional 'optional' modules related to your area of interest.

- This online training module can be accessed at http://www.citiprogram.org. (You must complete the required basic course before the optional modules are available).
- Specific directions for how to log on can be found at the GMU Office of Research Subject Protection website: http://research.gmu.edu/ORSP/HumanTraining.html
 Turn in a digital copy (and keep a copy for your records).

GMU also requires that all researchers (including student researchers) submit a research application to the office of Human Subject Protections PRIOR to conducting research. For this course, you should review the application form for class discussion.

• Application forms and guidelines can be found at the GMU Office of Research Subject Protection website: http://research.gmu.edu/ORSP/HumanFormsAndInstructions.html

Final Paper—Intervention Research Proposal (30 points) (Performance Based Assessment)

Students will produce an intervention research proposal on a topic of their choice and write up findings in manuscript form. The manuscript will contain (a) introduction & literature review, (b) methods, and (c) references. This proposal should build on existing research and may replicate and extend previous research studies. Refer to the APA manual for how to format headings and citations appropriately. The purpose of this assignment is to demonstrate your ability to design a high-quality intervention study. As such, there may be aspects of your intervention that you decide to informally pilot (e.g., measures, intervention, procedures).

Introduction & Literature Review

- o Brief introduction to the topic & literature review.
- o Statement of purpose and research questions.

Methods

- Research Design
- o Participants (when applicable, should include setting, subjects, interventionists)
- Measures
- o Intervention (when applicable, should include control/alternate treatment)
- o Procedures (when applicable, should include study procedures, data collection procedures, scoring procedures, fidelity of treatment procedures)
- Proposed Preliminary Data Analyses

References

- o References should be listed in APA format.
- O Studies included in the review should be noted with an asterisk.

Rubric for Quantitative Research Proposal

- Exemplary paper (A): Establishes an important educational problem that needs to be addressed, a logical presentation of information that leads to the purpose statement of the paper. Important concepts are defined in this section as well as any background information needed to support search procedures in the methodology. Appropriate topic, thorough and thoughtful review of appropriate studies (including a study that is appropriate for replication and extension if applicable), a clearly stated purpose statement, and appropriate research questions that are consistent with the quantitative research methodology. Appropriate and clearly described research design, participants, materials, data sources, implementation procedures, and careful brief description of data analyses. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.
- Adequate paper (B): 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 (C): 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 (D):** 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.

Research Site "Research Pitch" (with Q&A)

Being able to succinctly talk about your research is challenging, but a necessary skill when seeking access to research sites (e.g., schools). As such, this is an important skill for researchers to hone if they are to be effective in obtaining access to research subjects. For this assignment, students will prepare a "pitch" to be presented to the gatekeeper of the research site and field questions. The instructor will provide materials to help you prepare for the activity. The assignment will be graded on the following scale:

9-10=great job, you are in!

8=you are close; needed changes are viable

0-7=you failed to make your case and are denied access

Course Policies and Expectations

Attendance/Participation

Students are asked to attend all classes on time, be prepared, post to Blackboard discussion board, and actively participate and support the members of the class learning community.

Late Work

Late will not be accepted.

Grading Scale

A = 90-100%

B = 80-89%

C = 70-79%

F = <79%

*Note: The George Mason University Honor Code will be strictly enforced. See <u>Academic Integrity Site</u> (https://oai.gmu.edu/) and <u>Honor Code and System</u>

(https://catalog.gmu.edu/policies/honor-code-system/). Students are responsible for reading and understanding the Code. "To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work."

Work submitted must be your own new, original work for this course or with proper citations.

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times. See Policies and Procedures (https://cehd.gmu.edu/students/polices-procedures/).

Class Schedule

*Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Class	Topics	Readings	Due
8/27	Course Overview	CooperPart I &	
	Overview of Types of Research	Part II (ch.1)	
	Types of Intervention Research	Mastropieri et al.	
	• Library 101	(2009)	
		Odom et al.	
0.42		(2005)	
9/3	INDEPENDENT ONLINE CLASS:	CooperPart III	
	• AIR Webinar 1: An Introduction to		
	Systematic Literature Reviews		
9/10	Library Tutorials	Cl Cl- 0 0	HW/s non or(s) to nic share
9/10	• Activity: Is it in or out?	Cozby—Ch. 8, 9, & 10	HW: paper(s) topic share HW: Inclusion/ exclusion
	• Group Research in Special Education	& 10	criteria
	Developing a Coding Scheme & Coding		Citteria
0/17	Study Reports	Carrier David IV	HW. C. I'm man 1
9/17	Activity: Writing the methods section	Cooper—Part IV	HW: Coding manual
	Data management & organization		(draft)
9/24	(creating a literature table) INDEPENDENT ONLINE CLASS:	V1- (2001)	
9/24		Kavale (2001) Cozby—Part I	
	• <i>AIR Webinar 2</i> : An Introduction to Meta-Analytic Techniques	(ch.2)	
	Campbell Collaboration Training:	(CII.2)	
	Introduction to Meta-analysis		
10/1	Selecting, Coding, and Computing the	Cozby—Part VII	HW: Literature table
10/1	Effect Size Statistic	COZOY Tart VII	(draft)
	Activity: Let's do it!		(drait)
10/8	Single Case Experimental Design	Cozby—Ch.11	
	(SCED) Research in Special Education		
	Developing a Coding Scheme & Coding		
	Study Reports		
10/15	Coding Outcome Variables in Single	Parker et al.	DUE: Mini Review
	Subject Research	(2011)	
	Data Management	Scruggs &	
		Mastropieri	
		(2013)	
10/22	Activity: Mock Review Panels	Cozby—Ch1&2	DUE: Conference
	Conceptual Framework & Research		Proposal
	Questions		
	Participants		
	Ethics in Special Education Research		
10/29	INDEPENDENT ONLINE CLASS:	Cozby—	
11/5	HSRB CITI Training Module Completion	Ch. 3	DUE CITIC : C
11/5	• Independent Variable (intervention)	Cozby—Chs. 4,	DUE: CITI Certificates
	Dependent Variable(s) (Measures)	5, & 6	
44/15	Research Procedures		
11/12	Data Analysis	Gersten et al.	
	Quality Indicators in Special Education	(2005)	

	Research	Horner et al.	
	Activity: Constructing a Research	(2005)	
	Timeline	Cozby—Ch.12,	
		13, 14	
11/19	GMU Independent Study Requirements		DUE: Intervention
	Activity: Peer Review		research proposal DRAFT
	,		DUE 11/22: FINAL
			PAPER
11/26	NO CLASS: Thanksgiving Break		
12/3	PRESENTATIONS:		
	Research site "research pitch" (with Q&A)		
12/10	Individual Conferences - Optional		
	[by appointment with instructor]		

Core Values Commitment

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

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code. See <u>Honor Code and System</u> (https://catalog.gmu.edu/policies/honor-code-system/).
- Students must follow the university policy for Responsible Use of Computing. See Responsible Use of Computing (http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).
- Students are responsible for the content of university communications sent to their Mason 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 with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor. See Disability Services (https://ds.gmu.edu/).
- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

Campus Resources

• Support for submission of assignments to VIA should be directed to <u>VIA Help</u> <u>support@watermarkinsights.com</u>. Questions or concerns regarding use of Blackboard should be directed to Blackboard Instructional Technology Support for Students

(https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/).

Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:

- As a faculty member, I am designated as a "Responsible Employee," and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730, or emailing the Title IX Coordinator (titleix@gmu.edu).
- For information on student support resources on campus, see <u>Student Support Resources on Campus</u> (<u>https://ctfe.gmu.edu/teaching/student-support-resources-on-campus</u>).
- For additional information on the College of Education and Human Development, please visit our website College of Education and Human Development (http://cehd.gmu.edu/).