George Mason University
College of Education and Human Development
Elementary Education

EDCI 559 _ 001: Research and Assessment in Elementary Education
3 credits/Spring 2018
4:30-7:10 pm/Tuesdays
Thompson Hall 1020-Fairfax Campus-Plus Online classes

Professor: Dr. Debra Sprague
Office Hours: By appointment;
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Prerequisites/Corequisites
Admission into Elementary Education graduate program; capstone course for degree must be taken last in programmatic sequence.

University Catalog Course Description
Provides teacher candidates an understanding of research paradigms utilizing systematic evidence to improve practice and further skills in assessment of learning outcomes. Emphasizes linking research and practice, making instructional decisions based on systematically collected data.

Course Overview
Students in this course will participate in individual and group activities that focus on the development and implementation of action research. Students will also participate in large group discussions led by the instructor and in small group discussions and activities with their classmates.

Course Delivery Method
This course includes multiple instructional strategies and formats including face to face and asynchronous online class sessions. Individual session formats vary and may include lecture, small group/large group discussion, hands-on, interactive work, student presentations, and cooperative learning. Practical applications of theory are explored in group activities. Online sessions will be delivered using an **asynchronous** format via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard course site using your Mason email name (everything before "@masonlive.gmu.edu) and email password.

Learner Outcomes or Objectives
This course is designed to enable students to do the following:
   A. Articulate the role of systematic evidence in the improvement of teaching and learning.

B. Use educational research literature as a basis for reflecting on and improving their teaching practice.
C. Make explicit linkages between research and assessment practice.
D. Distinguish between the purposes and methods of theoretical, applied, and action research as well as quantitative and qualitative research.
E. Explain the fundamentals of validity and reliability, and articulate the potential threats to validity within various research paradigms.
F. Critique the quality of research studies within various paradigms.
G. Describe the purpose and cycle of action research, specifically in relationship to assessment of their learners.
H. Design appropriate and authentic assessments and analyze student data.
I. Design an action research study based on research and student assessments.
J. Use technology to assist in locating, using, conducting research, and analyzing data.

Professional Standards
  A. **ACEI Standards:**
    Standard 3.1: Integrating and applying knowledge for instruction—Candidates plan and implement instruction based on knowledge of students, learning theory, connections across the curriculum, curricular goals, and community
    Standard 3.2: Adaptation to diverse students—Candidates understand how elementary students differ in their development and approaches to learning, and create instructional opportunities that are adapted to diverse students
    Standard 3.3: Development of critical thinking and problem solving—Candidates understand and use a variety of teaching strategies that encourage elementary students' development of critical thinking and problem solving
    Standard 3.4: Active engagement in learning—Candidates use their knowledge and understanding of individual and group motivation and behavior among students at the K-6 level to foster active engagement in learning, self-motivation, and positive social interaction and to create supportive learning environments
    Standard 4.0: Assessment for instruction—Candidates know, understand, and use formal and informal assessment strategies to plan, evaluate and strengthen instruction that will promote continuous intellectual, social, emotional, and physical development of each elementary student.
    Standard 5.1 Professional growth, reflection, and evaluation—Candidates are aware of and reflect on their practice in light of research on teaching, professional ethics, and resources available for professional learning; they continually evaluate the effects of their professional decisions and actions on students, families and other professionals in the learning community and actively seek out opportunities to grow professionally.
  B. **INTASC:**
    Standard #2: Learning Differences. The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
    Standard #3: Learning Environments. The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

Standard #4: Content Knowledge. The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content.

Standard #5: Application of Content. The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

Standard #6: Assessment. The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.

Standard #7: Planning for Instruction. The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

Standard #8: **Instructional Strategies**. The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

Standard #9: Professional Learning and Ethical Practice. The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.

Standard #10: Leadership and Collaboration. The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

C. **National Board for Professional Teaching Standards:**
   Proposition 1: Teachers are committed to students and learning
   Proposition 3: Teachers are responsible for managing and monitoring student learning
   Proposition 4: Teachers think systematically about their practice and learn from their experience.

D. **ISTE National Technology Standards:**
   1. Learner - Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.
   4. Collaborator - Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.
   5. Designer - Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.
   7. Analyst - Educators understand and use data to drive their instruction and support students in achieving their learning goals.

E. **The Virginia State Technology Standards for Instructional Personnel:**
   1. Instructional personnel shall be able to demonstrate effective use of a computer system and utilize computer software.

2. Instructional personnel shall be able to apply knowledge of terms associated with educational computing and technology.
3. Instructional personnel shall be able to apply computer productivity tools for professional use
4. Instructional personnel shall be able to use electronic technologies to access and exchange information.

Learning Outcomes	NBPTS Propositions	NETS Standards	InTASC Standards	ACEI Standards
1	1, 3	V	2, 3, 4, 5, 6, 9, 10	3.1, 3.2, 3.3, 3.4, 4.0, 5.1
2	1, 3, 4	IV & V	9, 10	5.1
3	1, 3, 4	IV & V	6, 9	4.0, 5.1
4	4	V	6,	4.0
5	4	V	6	4.0
6	4	V	6, 9, 10	4.0, 5.1
7	1, 3, 4	IV & V	6, 7, 9	3.1, 4.0, 5.1
8	1, 3	IV & V	6	4.0
9	4	IV & V	6, 7, 9	3.1, 4.0, 5.1
10	4	V	4	2.1-2.6

Required Texts
Mills, G. E. (2017). *Action research: A guide for the teacher researcher* (6th ed.). Boston, MA: Pearson. (Previous editions may be used.)

Course Performance Evaluation:
Students are expected to submit all assignments on time as designated in the assignment descriptions below.

Course Assignments and Examinations:
1. **Reading and Activities (In-Class and Online) (40 points)**
I expect that you will complete all assigned readings and tasks each week. You also must be present during each class session by actively engaging with the content and your peers. Online discussions and activities must also clearly demonstrate your thoughtful completion of the readings and tasks. In the event of an emergency, I must be notified of your absence in advance of class.

2. **Action Research Report (35 points) (Final Due: 5/6) – TK20 Requirement**
This is the major assignment for this class and is the Performance Based Assessment (PBA) for the course. The final written report will include the seven sections below. These sections will be submitted throughout the semester for formative feedback from peers and your instructor. **These drafts MUST be submitted by their syllabus due dates.** Not doing so will affect your Readings and Activities (in class and online) grade. Points will also be earned for quality of writing and use of APA style. See attached rubric.
- Part One: Rationale and Research Question(s)
- Part Two: Annotated Bibliography Literature Review

- Part Three: Context and Instructional Change
  - Describe your school, community, classroom and student population; and
  - Describe the instructional change
- Part Four: Data Collection and Student Assessment
  - Describe how you collected data to answer your research question(s). This includes formative and summative assessments designed to gather that data.
- Part Five: Data Analysis
  - Describe how you analyzed your data
- Part Six: Findings
  - Describe your findings and their implications for teaching and learning
- Part Seven: Implications
  - Describe the implications of your study for your teaching

The final action research report must be submitted via TK20.

3. **Quantitative Data Analysis (10 points)**
   Students will be presented with a quantitative data set. Working in small groups, students will analyze the data using descriptive statistics, and share the findings at the end of the class period.

4. **Qualitative Data Analysis (10 points)**
   Students will be presented with a qualitative data set. Working in small groups, students will code and interpret the data; and share the findings at the end of the class period.

5. **Action Research Presentation (5 points)**
   You will present your Action Research to other Elementary Education students in a roundtable session. This presentation will be based on your written report (see above). You will prepare a one-page handout for distribution to your audience.

Course Policies
All assignments must be written in Times New Roman 12 point font, double-spaced, and follow APA (6th edition) formatting guidelines (see http://owl.english.purdue.edu/owl/resource/560/01/ for more information). **Assignments should be submitted electronically via Blackboard and are due by class time on the date indicated in an appropriate format (i.e., Word document).** Assignments turned in late or in an inappropriate format will be eligible for only 50% of the available points. If there is an emergency, contact me as soon as possible. **All assignments should be submitted with the following naming convention: student's last name and the title of the assignment**. For example: Sprague_Rational.

Absentee Policy: I understand that we all get sick and emergencies happen. However, you are expected to attend all face-to-face classes. If you need to be absent, please notify me prior to the start of class. If you are absent more than once, I will deduct points from your class participation grade as a result. You cannot contribute to class if you do not attend.

Technology Policy: When you are using cell phones, laptops, tablets, etc., please be respectful of your peers and your instructor and do not engage in activities that are unrelated to class. Such disruptions show a lack of professionalism and may affect your participation grade.

Grading Scale
94-100 = A   90-93 = A-   88-89 = B+   81-87 = B   70-80 = C   Below 70 = F

TK20/Performance-Based Assessment(s) Submission Requirement
Every student registered for any Elementary Education course with a required TK20 performance-based assessment (designated as such in the syllabus) must submit this/these assessment(s) **(EDCI 559: Final Action Research Report)** to Tk20 through *'Assessments'* in Blackboard. Failure to submit the assessment(s) to Tk20 (through Blackboard) will result in the course instructor reporting the course grade as Incomplete (IN). Unless this grade is changed upon completion of the required Tk20 submission, the IN will convert to an F nine weeks into the following semester.

<u>**Professional Dispositions:**</u>
Students are expected to exhibit professional behaviors and dispositions at all times (See Elementary Education Program Handbook).

EDCI 559 Spring 2018 Course Calendar
Note: Calendar is tentative and may be modified in line with course needs.

Date	Readings	Topics and Activities	Assignments Due
1/8		***Students will complete two online modules prior to start of class in exchange for two face to face classes during independent teaching.***	**To be completed by Tuesday 1/22 before class** Module 1 Online work: Searching for articles, APA, CBIT Training Module 2 Online Work: What is Action Research?
1/22	Mills Ch. 1	*Introducing Teacher Research* • Inquiry as a part of teaching, not apart from it (surfacing potential benefits and challenges) • How does academic research differ from action research? Critical Friends Groups	
1/29	Mills Ch. 3	*Crafting and reflecting on your teacher research* • Wonderings and questions • Writing your introduction and research question • The 5 Whys	**Due Sunday 2/3** Part 1: Rationale and Research

		Reviewing the Literature Connecting academic and action research	
2/5	Mills Ch. 2	*Designing your study* • Introduction: Types of Research Designs • Developing the action plan *Ethics in Action Research*	**Due Sunday 2/10** Part 3: Context and Change
2/12		*Qualitative Data Collection, Designing Interview Questions* Matching methods to questions (chart) • Surfacing bias, being open	
2/19	Mills Ch. 4, 5 (Quant) App. B	*Quantitative Data Collection, Designing Surveys* • Matching methods to questions (chart) • What makes a good survey?	**Due Sunday 2/24** Part 2: Annotated Bibliography
2/26	Mills Ch.4, 5 (Qual)	*Analyzing Quantitative Data*	**Due Sunday 3/3** Part 4: Data Collection
3/5	Mills Ch. 5, 6	*Analyzing Qualitative Data* • Interviews and Focus Groups	
3/12		**GMU Spring Break – No Class**	
3/19	Mills Ch.8, 9 App. C	*Organizing and Displaying Findings* • Summarizing data	**Due Sunday 3/24** Part 5: Data Analysis
3/26	Mills Ch. 7	*Evaluating the Quality of Action Research* Is all action research "good" research?	If the Context and Change and the Data Collection are approved, begin collecting data for your action research study.

4/2		**No Class – Due to January Online Class**	Continue collecting data for your action research study.
4/9		**No Class – Due to January Online Class**	Continue collecting data for your action research study.
4/16		***Elementary Schools Spring Break – No Class***	
4/23		*Drawing Implications from Findings* • Parts a, b, c of Data Analysis section *Workshopping your presentation and handouts*	**Due Sunday 4/28** Part 6: Findings Part 7: Implications Final Handout for presentation posted in Blackboard.
4/30		*Action Research Symposium*	**Due Sunday 5/5** Action Research Report Due (PBA) submitted to TK20 via Blackboard under Assessments.

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

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: http://cehd.gmu.edu/values/.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see https://catalog.gmu.edu/policies/honor-code-system/).

- Students must follow the university policy for Responsible Use of Computing (see 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 http://ods.gmu.edu/).

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

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/aero/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.gmu.edu/.

- The Writing Center 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/).

- The 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/).

- For information on student support resources on campus, see https://ctfe.gmu.edu/teaching/student-support-resources-on-campus.

For additional information on the College of Education and Human Development, please visit our website https://cehd.gmu.edu/.

Action Research Rubric

Levels/Criteria	3	2	1
Introduction: Describes the problem. Clear research question stated. Significance of problem is addressed. ***InTASC 9 ACEI 5.1***	The problem is described in details. The description fully leads the reader to the research question. The research question is clear. It is measureable. The significance of the problem is addressed fully. It is clear why this is an important problem to study.	The problem is adequately described. The description partially leads the reader to the research question. The research question is vague. It is measureable. The significance of the problem is adequately addressed, but it is not clear as to why this is important.	The problem is not adequately described. It does not lead the reader to the research question. The research question is unclear. It is not measureable. The significance of the problem is unfocused and rambles. It is not clear why this is an important topic to study.
Annotated Bibliography: Research studies are used. Studies relate to the research question. ***InTASC 9 ACEI 5.1***	At least nine to ten research studies are used to support the literature review. These are from respectable journals. The studies are appropriate for the topic and research questions. Bibliography is in APA style with no errors.	Five to eight research studies are used. At least one of them is from a respectable journal. The studies are somewhat appropriate for the topic and research question. Bibliography follows APA style with no more than two errors.	Less than five research studies are used. The articles are not from respectable journals. The studies are not appropriate for the topic or research question.
Context and Intervention Provided: Setting Described. Population identified. Intervention. ***InTASC 9 ACEI 5.1***	The setting is fully described. It includes, size of school, location, grade level, subject taught, etc. All pertinent information is included. The population is fully described. It includes number of students, gender and ethnic breakdown, grade levels, academic abilities, etc. Information relevant to the research is included. Intervention is fully described. It is clear what the intervention is and how it will be implemented. Intervention is realistic.	The setting is adequately described. Most information is included, but not all. The population is adequately described. Most information is included, but not all. Intervention is adequately described, but either the description of the intervention or the implementation is confusing.	Setting is not included or inadequately described. It is not clear where the research will be conducted. Population is not included or inadequately described. It is not clear who will be participating in the research study. There is no intervention or implementation explained or the intervention does not align with the research question.

Research Design: Design of study matches goals. Formative and Summative Assessments included. Data sources appropriate. *InTASC 9* *ACEI 5.1*	The methodology chosen (quantitative, qualitative, mixed methods) is appropriate for the research question. There is adequate time allowed for data collection. The treatment is reasonable and ethical. There is a mixture of formative and summative assessments included in the design. They are well-described or a copy is included. All data sources are appropriate for the research question. The information collected will help answer the question.	Two of the three stated criteria are adequate. Formative and summative assessments are included in the design. Copies are not included and they are not well described. Most, but not all, of the data sources are appropriate.	None or one of the criteria is adequate. The research is not ethical. Either formative or summative assessments are included, but not both. Copies are not included and they are not well described. The majority of the data sources are not appropriate for the research question. Data collected is not ethical.
Analysis of Data: Appropriate analysis for data collected. *InTASC 9* *ACEI 5.1*	The entire analysis of the data is appropriate. The information gathered addresses the research question.	The majority of the analysis is appropriate. However, it is not clear how other parts were analyzed.	The analysis is inappropriate or not well-defined.
Findings and Implications: Findings are presented clearly. Implications from data proposed. Connects back to the findings. *InTASC 9* *ACEI 5.1*	Findings are presented in a clear format. Key findings are thoroughly discussed. Implications from the data are well-developed and fully discussed. The implications are connected back to the results of the data analysis.	Findings are presented in an appropriate format, although they could be clearer. Key findings are discussed in general terms. Implications from the data are adequately discussed. It is clear the student is able to interpret the findings. However, the implications are not tied back to the results.	Findings are not presented in a clear format or are absent. Key findings are not adequately discussed. Implications from the data are inadequately discussed. It is not clear the student is able to interpret the findings. The implications are not tied back to the results.
Overall Style: Clear, concise writing. Grammar and	The writing is very clear and concise. The reader can understand what the problem is and how the	The majority of the writing is clear and concise. There are one to three	The majority of the reading is vague and unclear. The reader has difficulty seeing the

punctuation. Multiple levels of headings used to organize ideas. *InTASC 9 ACEI 5.1*	research will address it. There are no grammar and punctuation errors. There is evidence of multiple levels of headings. These are used appropriately in all instances.	grammar and punctuation errors. There is evidence of multiple levels of headings. These are used appropriately in the majority of instances.	connections between the various sections. There are four or more grammar and punctuation errors. There is no evidence of multiple levels of headings or these are used inappropriately in the majority of instances.