# GEORGE MASON UNIVERSITY COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT GRADUATE SCHOOL OF EDUCATION

Course

ELED 559: Research and Assessment in Elementary Education
Section 5, 3 credits
Spring 2020
Mondays 4:30 – 7

Instructor

Mandy Bean Office Hours: By appointment Thompson 1803 (704) 302-6702 abean5@gmu.edu

## **Prerequisites**

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**

This course is designed to help teacher candidates understand various research paradigms utilizing research literature and systematic evidence to improve teacher practice, and to further their skills at assessment of learning outcomes. Course emphasizes linking research and practice and making instructional decisions based on systematically collected data.

# **Nature of Course Delivery**

This course is delivered using multiple instructional strategies and formats including face-to-face, synchronous online meetings, and asynchronous online meetings. 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.

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 a standard up-to-date browser, either Internet Explorer or Mozilla Firefox is required (note: Opera and Safari are not compatible with Blackboard).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- 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://windows.microsoft.com/en-us/windows/downloads/windows-media-player/

o Apple Quick Time Player: <a href="https://www.apple.com/quicktime/download/">www.apple.com/quicktime/download/</a>

#### **COURSE EXPECTATIONS**

**COURSE WEEK:** Our class will meet on Mondays as indicated on the Schedule of Classes.

**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 *twice* a week.

**PARTICIPATION:** Please see Item #1 under course assignments. 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.

**ACCOMMODATIONS:** Learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

WRITTEN WORK: All assignments must be written in Times New Roman, 12 point font, double-spaced, and follow APA (6th edition) formatting guidelines (see <a href="http://owl.english.purdue.edu/owl/resource/560/01/">http://owl.english.purdue.edu/owl/resource/560/01/</a> for more information). Assignments should be submitted electronically via email 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 have a deduction of points. If there is an emergency, contact Dr. Bean 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: Bean\_LitReview

**IN CLASS TECHNOLOGY POLICY:** When you are using laptops or other electronic devices, *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 will impact your participation grade.

# **LEARNING OUTCOMES**

- A. Students will be able to:
  - 1. Articulate the role of systematic evidence in the improvement of teaching and learning.
  - 2. Use educational research literature as a basis for reflecting on and improving their teaching practice.
  - 3. Make explicit linkages between research and assessment practice.
  - 4. Distinguish between the purposes and methods of theoretical, applied, and action research as well as quantitative and qualitative research.
  - 5. Explain the fundamentals of validity and reliability, and articulate the potential threats to validity within various research paradigms.
  - 6. Critique the quality of research studies within various paradigms.
  - 7. Describe the purpose and cycle of action research, specifically in relationship to assessment of their learners.
  - 8. Design appropriate and authentic assessments and analyze student data.
  - 9. Design an action research study based on research and student assessments.
  - 10. Use technology to assist in locating, using, conducting research, and analyzing data.

#### B. Outcomes and Standards (see below)

Learning	NBPTS	NETS Standards	InTASC Standards	ACEI Standards
Outcomes	Propositions			
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

# **PROFESSIONAL STANDARDS**

Upon completion of this course, students will have met the following professional standards:

#### **❖** 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.

# **❖** 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.

# National Technology Standards

**Standard IV**: Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies.

Standard V: Teachers use technology to enhance their productivity and professional practice.

**❖** 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.

# **REQUIRED TEXT**

Mills, G. E. (2017). Action research: A guide for the teacher researcher (6<sup>th</sup> ed.). Boston, MA: Pearson.

## **COURSE PERFORMANCE EVALUATIONS:**

Students are expected to submit all assignments on time in the manner outlined by the instructor.

# **TK20 Performance-Based Assessment Submission Requirement**

Every student registered for any Elementary Education course with a required performance-based assessment is required to submit these assessments, Final Action Research Report, to TK20 through Blackboard (regardless of whether the student is taking the course as an elective, a onetime course or as part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in Tk20 through Blackboard. Failure to submit the assessment to TK20 (through Blackboard) will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required Tk20 submission, the IN will convert to an F nine weeks into the following semester.

#### **ASSIGNMENTS**

Assign	Points		
1. Atte	20		
2. Com	5 points EACH		
a.	Part One: Rationale and Research Question(s)	(35 total)	
b.	Part Two A: Annotated Bibliography 1		
c.	c. Part Two B: Annotated Bibliography 2		
d.			
e.			
f.			
g.	Part Six: Findings		
3. Fina	30		
4. Action Research Poster and Presentation [Outcomes 1, 2, 3, 7]		15	
Total	100		

## 1. Attendance and Participation Expectations (20 points)

This course operates with the assumption that knowledge is socially constructed and the most meaningful learning opportunities are those where you have the opportunity to offer and explore diverse perspectives with peers. To do this **it is expected that you attend all scheduled classes (both in person and online)** outlined within the syllabus. Absence from class to observe a religious holiday, to serve jury duty, or to participate in required military service, and medical emergencies are exceptions to the above policy. If you anticipate being absent for any of these

reasons, please make arrangements at least 48 hours in advance. In addition, you are expected to be on time to class each week unless advance notice has been provided to the instructor.

You are expected to contribute to both class and online discussions and activities as well as genuinely listen to peers as they do the same. In addition, you are expected to be prepared for each class, which means having completed all assigned readings and tasks for that class. Cell phones are for emergency use only and it is expected that you will not use cell phones or computers in class for purposes such as texting, social media, or phone calls. You will be asked to put them away.

All written papers are expected to be double-spaced, with 1" margins, and in 12-point font of Times New Roman. APA format is expected. If you do not have a 6th Edition APA manual, the OWL at Purdue is an excellent resource. http://owl.english.purdue.edu/owl/resource/560/01/

Please Note: The GMU Writing Center offers online support via email. They will provide feedback on your writing within one hour. Graduate and professional writing can be difficult; I encourage you to take advantage of this service. http://writingcenter.gmu.edu/?page id=177

It is expected that all class assignments will be submitted on time to the correct location; therefore, late assignments will not receive full credit. Assignments turned in late will have 1 point deducted for each day it is late; this policy will be strictly followed. All assignments must be submitted on the due date stated within the syllabus (see below) and should be submitted in the format outlined below.

Note: I reserve the right to add, alter, or omit any assignment as necessary during the course of the semester. You will always receive advanced notice of any modifications.

# 2. Component Drafts (5 each: 7 total for 35 points)

These sections will be submitted throughout the semester for formative feedback. These drafts <u>MUST</u> be submitted by their syllabus due dates. They are worth 5 points each. **All are due on Sundays by 11:59pm.** 

<u>Part One:</u> Rationale and Research Question(s) (due Feb 9)

Part Two A: Annotated Bibliography #1 (due Feb 23)

Part Two B: Annotated Bibliography #2 (due Mar 1)

Part Three: Context and Instructional Change (due April 12)

Describe your school, community, classroom and student population; and

Describe the instructional change

Part Four: Data Collection and Student Assessments (due April 26)

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 (due May 10)

Describe how you analyzed your data

Part Six: Findings (due May 26)

Describe your findings

# 3. Action Research FINAL Report (30 points) —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 sections above and a final implications section for a total of seven sections.

Points will also be earned for quality of writing and use of APA style in FINAL REPORT. See attached rubric.

- Part One: Rationale and Research Question(s)
- Part Two: Annotated Bibliography
- Part Three: Context and Instructional Change
- Part Four: Data Collection and Student Assessments
- Part Five: Data Analysis
- Part Six: Findings
- Part Seven: Implications

Final Report must be submitted via TK20 by TUESDAY June 2nd, 11:59pm

# 4. Action Research Poster Presentation (15 points)

You will present your Action Research via conference-style poster presentation. This presentation will be based on your written final report (see above). You will participate with other sections of EDCI 559 in a poster session. You will prepare a conference-style poster and one-page handout for distribution to your audience. Date of presentations is June 4<sup>th</sup> in the afternoon. Location TBD.

# **Grading Scale**

94-100 = A 90-93 = A-	88-89 = B+	80-87 = B	70-79 = C	Below 70 = F
-----------------------	------------	-----------	-----------	--------------

#### PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times: <a href="https://cehd.gmu.edu/students/polices-procedures/">https://cehd.gmu.edu/students/polices-procedures/</a>. (See also Elementary Education Program Handbook).

#### **COURSE SCHEDULE**

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

Date	Readings	Topics and Activities	Assignment Due
1/27	Mills Ch 1: Understanding Action Research	<ul> <li>SYNCHRONOUS ONLINE – Blackboard Collaborate</li> <li>Introductions and Syllabus</li> <li>Intro: Rationale and Research Question</li> </ul>	
2/3	Mills Ch 3: Deciding on an area of focus	FTF at Loch Lomond Elementary  - Area of focus: Meet with Dr. Bean on rationale and research question  - Context and Change overview	Bring your idea(s) for your area of focus to class on Feb.3
2/10	Mills Ch. 4: Review of	ASYNCHRONOUS ONLINE - Reviewing the Literature	Feb 9: Part 1: Rationale and Research Question(s)

	Related Literature	<ul><li>Finding peer reviewed articles</li><li>Critical Friends Groups</li></ul>	
	10		
		notated Bibliography	1
2/24	Mills Ch 5: Data Collection techniques	<ul> <li>SYNCHRONOUS ONLINE – Blackboard Collaborate</li> <li>Qualitative Data Collection and Analysis</li> <li>Quantitative Data Collection and Analysis</li> </ul>	Feb 23 : Part 2A: Annotated Bibliography: Find 5 research articles related to your topic
3/2	Mills Ch 6: Data Collection considerations	<ul> <li>FTF at Loch Lomond Elementary</li> <li>Ensuring Trustworthiness</li> <li>Validity, Reliability, Generalizability</li> <li>Evaluating the Quality of Action Research</li> </ul>	Mar 1: Part 2B: Annotated Bibliography: 5 MORE research articles related
3/9		No Class – IT, data collection*	*You will meet with Dr.
3/16		No Class – IT, data collection*	Bean one time during this
3/23		No Class – IT, data collection*	time to discuss your
3/30		No Class – IT, data collection*	research
4/6		No Class – FCPS Spring Break	
4/13	Mills Appendix A: Jonathan Stewart	FTF at Loch Lomond Elementary - Critical Friends Group Work on Data Collection	April 12: Part 3: Context and Change
4/27	Mills Ch. 7 Data analysis and interpretation	FTF at Loch Lomond Elementary - Analyzing data	April 26: Part 4: Data Collection
5/11	Mills Ch. 9 Writing Up Action Research	<ul> <li>SYNCHRONOUS ONLINE – Blackboard Collaborate</li> <li>Work on data analysis</li> <li>Preparing for the final research report</li> </ul>	May 10: Part 5: Data Analysis
5/18		FTF at Loch Lomond Elementary  - Work on Findings  - Preparing presentation	
			<b>TUESDAY</b> May 26: Part 6: Findings
			June 2: FINAL Paper (includes Implications section)
6/4 ON CAMPUS		ON CAMPUS - Sharing Symposium - Location TBD	June 4: Poster is due

# **CORE VALUES COMMITMENT**

Core Values Commitment 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/



#### **GMU POLICIES AND CAMPUS RESOURCES FOR STUDENTS**

#### **POLICIES**

Students must adhere to the guidelines of the Mason Honor Code (see <a href="http://oai.gmu.edu/the-mason-honor-code">http://oai.gmu.edu/the-mason-honor-code</a>/).

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 <a href="http://ods.gmu.edu/">http://ods.gmu.edu/</a>).

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 <a href="tk20help@gmu.edu">tk20help@gmu.edu</a> or <a href="https://cehd.gmu.edu/aero/tk20">https://cehd.gmu.edu/aero/tk20</a>. Questions or concerns regarding use of Blackboard should be directed to <a href="http://coursessupport.gmu.edu/">http://coursessupport.gmu.edu/</a>.

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 <a href="http://writingcenter.gmu.edu/">http://writingcenter.gmu.edu/</a>).

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 <a href="http://caps.gmu.edu/">http://caps.gmu.edu/</a>).

The Student Support & Advocacy Center staff helps students develop and maintain healthy lifestyles through confidential one-on-one support as well as through interactive programs and resources. Some of the topics

they address are healthy relationships, stress management, nutrition, sexual assault, drug and alcohol use, and sexual health (see <a href="http://ssac.gmu.edu/">http://ssac.gmu.edu/</a>). Students in need of these services may contact the office by phone at 703-993-3686. Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to <a href="http://ssac.gmu.edu/make-a-referral/">http://ssac.gmu.edu/make-a-referral/</a>.

# 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 <a href="mailto:titleix@gmu.edu">titleix@gmu.edu</a>.

For additional information on the College of Education and Human Development, please visit our website <a href="https://cehd.gmu.edu/">https://cehd.gmu.edu/</a>.

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <a href="http://gse.gmu.edu/">http://gse.gmu.edu/</a>].

#### **EMERGENCY PROCEDURES**

You are encouraged to sign up for emergency alerts by visiting the website <a href="https://alert.gmu.edu">https://alert.gmu.edu</a>. There are emergency posters in each classroom explaining what to do in the event of crises. Further information about emergency procedures exists on <a href="http://gmu.edu/service/cert">http://gmu.edu/service/cert</a>

**Final Paper: Action Research Rubric** 

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

	implemented.		
	Intervention is realistic.		
Research	The methodology chosen	Two of the three stated	None or one of the
	(quantitative, qualitative,	criteria are adequate.	criteria is adequate. The
Design:	` · ·	Formative and	research is not ethical.
Design of study	mixed methods) is	summative assessments	Either formative or
matches goals.	appropriate for the		
Formative and	research question. There	are included in the	summative assessments
Summative	is adequate time allowed	design. Copies are not	are included, but not
Assessments	for data collection. The	included and they are not	both. Copies are not
included.	treatment is reasonable	well described.	included and they are not
Data sources	and ethical.	Most, but not all, of the	well described.
appropriate.	There is a mixture of	data sources are	The majority of the data
InTASC 9 ACEI 5.1	formative and summative	appropriate.	sources are not
ACEI 5.1	assessments included in		appropriate for the
	the design. They are well-		research question. Data
	described or a copy is		collected is not ethical.
	included.		
	All data sources are		
	appropriate for the		
	research question. The		
	information collected will		
A 1 : C	help answer the question.	<del>-</del> 1 · · · · · · · · · · · · · · · · · · ·	
Analysis of	The entire analysis of the	The majority of the	The analysis is
Data:	data is appropriate. The	analysis is appropriate.	inappropriate or not well-
Appropriate	information gathered	However, it is not clear	defined.
analysis for	addresses the research	how other parts were	
data collected.	question.	analyzed.	
InTASC 9 ACEI 5.1			
Findings and	Findings are presented in	Findings are presented in	Findings are not
Implications:	a clear format. Key	an appropriate format,	presented in a clear
Findings are	findings are thoroughly	although they could be	format or are absent.
presented	discussed. Implications	clearer. Key findings are	Key findings are not
clearly.	from the data are well-	discussed in general	adequately discussed.
Implications	developed and fully	terms. Implications from	Implications from the
from data	discussed. The	the data are adequately	data are inadequately
proposed.	implications are	discussed. It is clear the	discussed. It is not clear
Connects back	connected back to the	student is able to	the student is able to
to the findings.	results of the data	interpret the findings.	interpret the findings.
to the illiumgs.	analysis.	However, the	The implications are not
InTASC 9	anarysis.	implications are not tied	tied back to the results.
ACEI 5.1		back to the results.	tied back to tric results.
Overall Style:	The writing is very clear	The majority of the	The majority of the
Clear, concise	and concise. The reader	writing is clear and	reading is vague and
Lical, colless	and concise. The reduct	withing is cieal allu	reading is vague and

writing.	can understand what the	concise.	unclear. The reader has
Grammar and	problem is and how the	There are one to three	difficulty seeing the
punctuation.	research will address it.	grammar and	connections between the
Multiple levels	There are no grammar	punctuation errors.	various sections.
of headings	and punctuation errors.	There is evidence of	There are four or more
used to	There is evidence of	multiple levels of	grammar and
organize ideas.	multiple levels of	headings. These are used	punctuation errors.
InTASC 9	headings. These are used	appropriately in the	There is no evidence of
ACEI 5.1	appropriately in all	majority of instances.	multiple levels of
	instances.		headings or these are
			used inappropriately in
			the majority of instances.