



Promoting Learning & Development Across the Lifespan

George Mason University
College of Education and Human Development
Secondary Education Program
Spring 2018

EDUC 675: RESEARCH IN SECONDARY EDUCATION

Section 001 (3 credits)

Meeting Day/time: Mondays 4:30 p.m.–7:10 p.m.

Class Location: Thompson Hall 1020

Faculty:

Name: Paula Cristina Azevedo, PhD

Office Hours: By appointment

Office Location: [Program Office Location]

Email address: pazevedo@gmu.edu

Google and Skype: pazevedo06

Prerequisite(s)

EDCI 790 and licensure; enforced by registration system

Co-requisite

M.Ed. Program Exit Requirement: *Teacher Research Impact Project*

Note: All students enrolled in this course must be working daily in or have access to a classroom setting classroom setting, since the major course assignment involves a classroom-based teacher research project. *If you do not have your own classroom, you will need to let the instructor know before or during the first class. Alternative arrangements used successfully in the past will be offered. *See J. Recko exemplar under spring 2015 exemplars in Bb for a study completed by a student without a classroom.*

University Course Catalog Description

Links evidence of student learning to make informed instructional decisions. Engages students in critiquing various research paradigms, reviewing literature, and systematically collecting and interpreting evidence to improve practice. Facilitates completion of the M.Ed. exit requirement.

Course Overview

The major purpose of this course is for you to learn how to design and conduct a teacher research project situated in a classroom with the goal of improving your teaching and your students' learning. The course is designed to promote a professional teaching and learning community with peer review critical friend support. Throughout the course, you are completing a research component of your study in an informal manner that you will later insert into your final polished paper. Your ultimate success with the final project requires your ongoing commitment to each step in the process and collaboration with peers for reciprocal review. The course provides an opportunity for your personal and ongoing professional development as a teacher; to consider who are you as a teacher and who you are becoming— (your teacher professional identity). As a pedagogical self-study of teaching scholar, I will work to model the process I ask of you and share my ongoing self-study of teacher research and ideas for innovative ways to collect data. I work to live and model what I profess as a life-long learner through my ongoing professional development and collaboration with my self-study of teaching colleagues. Teaching is a beautiful professional craft filled with complexities and challenges, and also with much creativity and joy.

Learner Outcomes

This course is designed to enable students to:

1. demonstrate an understanding of the process and components embedded in teacher research by conducting and assessing a chosen teacher researcher inquiry situated in their classroom and with attention to its impact on students' learning;
2. design a research proposal which makes explicit links between theory and practice;
3. examine ethical considerations when conducting teacher research;
4. conduct teacher research using the self-study action research method which includes: research question(s), research rationale and proposal; review of related literature, methods, data collection/analysis, findings, discussion and reflection of impact on students, teacher, and education field; and abstract;
5. participate in “critical collaborative inquiries” (Samaras, 2011) to gain multiple and perspectives and collaborative experiences and in interpreting research and for validation and peer review of research;
6. demonstrate integration of national and state standards for content and pedagogy as related to the research question by reflecting on their own teaching practice and its impact on students' learning respective to students' discipline;
7. demonstrate skills and applications of visual and digital literacies in a collaborative teacher research project and teacher research impact collaborative presentation.

Professional Standards

Students will demonstrate an understanding and application of subject area standards aligned with the *National Content Standards* and identified by their Specialized Professional Association (SPA); and an understanding and application of teaching and learning standards as outlined by *INTASC*. National Content Standards for respective discipline: NCSS, NCTE, NCTM, NSTA

National Council for the Social Studies <http://www.ncss.org/>

National Council of Teachers of English <http://www.ncte.org/>

National Council of Teachers of Mathematics <http://www.nctm.org/>

National Science Teachers Association <http://www.nsta.org/>

<http://books.nap.edu/readingroom/books/nse/>

INTASC: Interstate New Teacher Assistance and Support Consortium

http://programs.ccsso.org/projects/interstate_new_teacher_assessment_and_support_consortium/
Virginia State Standards

- Virginia Department of Education <http://www.pen.k12.va.us/>
- State of Virginia, SOL Resources <http://www.pen.k12.va.us/VDOE/Instruction/sol.html>
- State of Virginia Standards of Learning Test Information
<http://www.pen.k12.va.us/VDOE/src/SOLassessments.shtml>

Partnership for 21st Century Skills and the professional guidelines, National Board for Teaching Standards: <http://boardcertifiedteachers.org/certificate-areas>

Course Delivery

The course will be delivered in various instructional approaches, such as online, face-to-face, individualized and collaborative. The goal of the course is to learn how to conduct practitioner research and apply what you learn to your own classroom and teaching practice in order to improve teaching and learning. You'll be asked to complete assignments and participate in in-class and online activities that support your research. As you'll see in the schedule below about half the class session will be conducted on campus, while the other half will be conducted online.

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://support.microsoft.com/en-us/help/14209/get-windows-media-player>
 - Apple Quick Time Player: www.apple.com/quicktime/download/

Textbook and Resource Materials Required

Houghton, P.M. & Houghton, T.J. (2009). *APA: The easy way. A quick and simplified guide to the APA writing style*. Flint, MI: Baker College. [suggested]

Hosteler, A. L., Hawley, T., Crowe, A. R., Smith, E., Janosko, A., Koppes, L., Sprague, T.,

Ahlers, L., & Loudin, A., Self-study of practice as a framework to promote growth in the student teaching experience. *Studying Teacher Education*, 9, 187-200. [in Bb req. reads]

Samaras, A. P. (2011). *Self-study teacher research: Improving your practice through collaborative inquiry*. Thousand Oaks, CA: Sage.
Online resources also available at: <http://www.sagepub.com/samaras/>

Samaras, A. P., & Roberts, L. (2011). Flying solo: Teachers take charge of their learning through self-study research. *Learning Forward, Journal of Staff Development*, 32(5), 42-45. [located on Bb under req. readings]

Teacher Research Exemplar Projects from GMU Alumni:

Mautz, M. (2014). *Promoting motivation in the classroom through goal-setting*. Paper submitted to the Secondary Education Program, Graduate School of Education, George Mason University, Virginia, in partial fulfillment of the requirements for the degree of master of education.

Madden, K. H. (2014). *Making classroom conversation count: Improving participation in discussion to enhance learning*. Paper submitted to the Secondary Education Program, Graduate School of Education, George Mason University, Virginia, in partial fulfillment of the requirements for the degree of master of education.

Payden, J. (2014). *Using journal writing to develop students' mathematical communication skills*. Paper submitted to the Secondary Education Program, Graduate School of Education, George Mason University, Virginia, in partial fulfillment of the requirements for the degree of master of education.

Saxena, B. (2014). *Using discourse strategies to develop critical and creative thinking in science*. Paper submitted to the Secondary Education Program, Graduate School of Education, George Mason University, Virginia, in partial fulfillment of the requirements for the degree of master of education.

Sprague, L. (2014). *Management & madness: Discovering the balance between effective management and classroom morale*. Paper submitted to the Secondary Education Program, Graduate School of Education, George Mason University, Virginia, in partial fulfillment of the requirements for the degree of master of education.

Walsh, L. (2014). *Differentiation in an honors mathematics classroom: How to help each student individually reach their potential*. Paper submitted to the Secondary Education Program, Graduate School of Education, George Mason University, Virginia, in partial fulfillment of the requirements for the degree of master of education.

Additional exemplars will be showcased during class to highlight specific research components.

Additional Teacher Research Resources

*Please also visit the web links for online resources posted on Bb. Also see:

Brite Building Resilience in Teacher Education

www.brite.edu.au

Networks: An online journal for teacher research

<http://journals.library.wisc.edu/index.php/networks/index>

Studying Teacher Education: A journal of self-study of teacher education practices:

<https://www.tandfonline.com/loi/cste20>

Self-Study of Teacher Education Practices Special Interest Group <http://aera.net/sstepsig109>

Biennial International Conference on the Self-Study of Teacher Education Practices [see “Conference History” and scroll down to “Conference Proceedings” where you will have access to pdf of papers from proceedings]

<http://www.castleconference.com/conference-history.html>

Survey and Questionnaire Development

See: <http://writing.colostate.edu/guides/guide.cfm?guideid=68>

See: file titled “Questionnaire.Johnson” in Data Collection Tools Folder in Bb

Fowler, F. J. (2013). *Survey research methods*. Los Angeles, CA: Sage.

<http://www.amazon.com/Survey-Research-Methods-Applied-Social/dp/1452259003>

Data Collecting Tools: Go to Google docs, then spreadsheets to create survey.

Also Survey Monkey <http://www.surveymonkey.com/home.asp>

Data Analysis

Czaja, R., & Blair, J. (1996). *Designing surveys: A guide to decisions and procedures*. Thousand Oaks, CA: Pine Forge Press.

Patton, M. Q. (2015). *Qualitative evaluation and research methods*. Los Angeles: Sage.

Rovessi, C., & Carroll, D. J. (2002). *Statistics made simple for school leaders*. Lanham, MD: Scarecrow Press.

Salkind, N. (2000). *Statistics for people who think they hate statistics*. Thousand Oaks, CA: Sage.

Saldaña, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.

Research and Writing

American Psychological Association (2009). *Publication Manual of the American Psychological Association*. American Psychological Association: Washington, DC.

Booth, W. C., Colomb, G. G., & Williams, J. M. (1995). *The craft of research*. Chicago, IL: The University of Chicago.

Dahl, K. K. (1992). *Teacher as writer: Entering the professional conversation*. Urbana, IL: NCTE.

National Reports and Test Reporting Centers

The Nation's Report Card/National Assessment of Educational Progress

<http://nces.ed.gov/nationsreportcard/>

National Center for Educational Statistics <http://nces.ed.gov/help/sitemap.asp>
TIMSS and PIRLS The International Math and Science Study and International Literacy Study <http://www.timss.org/>
Best Evidence/School Reform Reports/School Models. Johns Hopkins University
<http://archive.education.jhu.edu/research/crre/>

Teacher Research

- Falk, B., & Blumenreich, M. (2005). *The power of questions: A guide to teacher and student research*. Portsmouth, NH: Heinemann.
- Goodnough, K. (2001). Teacher development through action research. *Action in teacher education*, 23 (1), 37-46. Access through GMU, Library, e-journal.
- Greely, K. (2000). *Why fly that way?: Living community and academic achievement*. NY: Teachers College.
- Hubbard, R. S., & Power, B. (1999). *Living the questions: A guide for teacher-researchers*. Portland, ME: Stenhouse.
- Kagan, D. M. (1993). *Laura and Jim and what they taught me about the gap between educational theory and practice*. NY. State University of New York Press.
- Lassonde, C. A., Galman, S., & Kosnik, C. (Eds.), (2009). *Self-study research methodologies for teacher educators*. Rotterdam, The Netherlands: Sense.
- Leedy, P. D., and Ormrod, J. E. (2001). *Practical research: Planning and design*. Upper Saddle River, NJ: Merrill.
- MacLean, M.S. & Mohr, M. (1999). *Teacher-researchers at work*. National Writing Project, Berkeley, CA.
- Meskin, T., Singh, L., & van der Walt, T. (2014). Putting the self in the hot seat: Enacting reflexivity through dramatic strategies. *Educational Research for Social Change (ERSC)*, 3(2), 5-20. (Bb)
Retrieved from http://ersc.nmmu.ac.za/view_edition.php?v=3&n=2#
- Samaras, A. P., Adams-Legge, M., Breslin, D., Mittapalli, K., Magaha O'Looney, J., & Wilcox, D. R. (2007). Building a plane while flying it: Reflections of teaching and learning self-study. *Reflective Practice*, 8(4), 467-481.
- Samaras, A. P., & Sell, C. (2013). Please write: Using critical friend letters in teacher research. *Teacher Education Quarterly*, 40 (4), 93-109.
- Samaras, A. P., & Freese, A. R. (2006). *Self-study of teaching practices primer*. New York, NY: Peter Lang.
- Samaras, A. P., Freese, A. R., Kosnik, C., & Beck, C. (Eds.) (2008). *Learning communities in practice*. The Netherlands: Springer Press.
- Seidman, I. (1998). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York: Teachers College Press.
- Thomas, R. M. (2005). *Teachers doing research: An introductory guidebook*. Boston: Pearson/Allyn & Bacon.
- Wilcox, D. R., & Samaras, A. P. (2009). Examining our Career Switcher teachers' first year of teaching: Implications for alternative teacher education program design. *Teacher Education Quarterly*, 36 (4), 173-191.
- Zenkov, K. & Harmon, J. (2009). Picturing a writing process: Using photovoice to learn how to teach writing to urban youth. *Journal of Adolescent and Adult Literacy*, 52(7), 575-584.

Tk20 Performance-Based Assessment Submission Requirement

Every student registered for any Secondary Education course with a required Tk20 performance-based assessment(s) (designated as such in the syllabus) is required to submit this/these assessment(s), the Teacher Research Project and Impact Presentation, to Tk20 through 'Assessments' in Blackboard (regardless of whether a course is an elective, a one-time course or part of an undergraduate minor). Failure to submit the assessment 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.

Course Requirements

Attendance, Participation, and Peer Review (15 pts)

Attendance

Attendance and participation at all classes, for the entire class period is a course expectation and absence will affect your grade. Successful completion of this course requires attendance at all face-to-face classes and active participation in the online individual and critical friend work. Being on time is also essential. Class participation is a factor in grading; instructors may use absences, tardiness, or early departures as de facto evidence of non-participation and as a result lower the grade. It is your responsibility to notify the instructor ahead of time if you will arrive late or if you must miss class. You are responsible in working with your Critical Friend Team (CFT) for missed material.

Readings

You are expected to complete all readings and come prepared to contribute to critical reflections and bring questions as they arise and especially as related to your research project. You are expected to actively participate in class and in online discussions with openness, consideration, and effort to "hear for" and "listen to" others as you also seek to be understood.

Critical Collaborative Inquires as Participation and Peer Review

Your in-class activities involve sharing weekly updates, brainstorming ideas as a teacher about the classroom dilemma you are researching, exchanging ideas for strategies and lessons, and sharing how you are integrating standards in meaningful ways. As part of your course participation, you will have the opportunity to collaborate with critical friends as you develop your teacher research project. Critical Friend Inquiries (CFI, Samaras, 2011) are designed for peer review with support and to provide alternative perspectives on interpretation to increase the validity of your research.

**It is your responsibility to respond to at least one critical friend team member for each assignment. Please assure that each team member receives a peer review. This is part of your participation grade. You are also required to provide feedback on a peer draft research report using tracking and comment bars.

Place your feedback in your peer's discussion thread for each assignment.

Critical friends provide support as well as a feedback loop to improve your practice. It is *critical* to have friends in research but critical friends are *not critical* in their approach with each other

(Samaras, 2011). Establish ground rules with “critical friends” and visit them often. Demonstrate positive professional dispositions. Professionals are responsible, ethical, and accountable.

Assignments

Each assignment helps you build your final paper so missing one, pushes you immediately behind. Since this is a professional development course (post licensure), high quality work (i.e., “A” work) is expected on all assignments and in class participation.

All written assignments are to be submitted as a file and submitted electronically under the respective Class Discussion Thread on Bb before the class begins. Late papers and projects will not be accepted without penalty, excepting extraordinary circumstances. I am available to clarify and assist on projects and assignments, yet with your contacting me within a reasonable timeframe. I reserve the right to add, alter, or omit any assignment as necessary during the course of the semester.

Title each assignment with your last name and the name of the project/assignment, and date (e.g., Smith.ResProp.09.08.16.) Use Times Roman 12 pt. font, double-spaced for all assignments. For full consideration, all assignments are due and posted electronically on Bb prior to the beginning of class on the day and time they are due, unless otherwise announced. It is your responsibility to check the Assignment/Review Discussion Thread each week where your critical friend(s) and/or I post comments to you.

*Please note: You will find descriptions of assignments located in our textbook with examples from GMU secondary education alumni, but the text and exemplars are resources. That is, the purpose of the readings is to support your work.

Each Assignment and Description is posted on Bb.

Make it a habit to write regularly and save your work constantly and in multiple places.

Descriptions of Assignments:

1. Education-related Life History Method

Use prompts on Critical Friend inquiry 5.1 in text on pp. 95-98. Helps you explore how personal learning experiences and culture shape your inquiry, practice, and your students’ learning.

2. Research Question and Rationale

Use pp. 114-116 in text

What are you curious about? For your research paper, you should choose a research question that really matters to you. It should be something you’re curious about and willing to spend time researching and learning about. Begin to articulate why you are curious about this question and topic and why now. What is the outgrowth of this puzzlement? Write a research proposal. You may also elect to add a visual representation to your research proposal. The idea is for the visual to help you figure out your “thesis” and not to enter an art show. Approach this assignment from where you are and honor its incompleteness as part of the research process. Ask yourself does the proposal give you a solid framework to launch your project.

Consider how your research question might connect with your experience of school, how school felt, and how you best learned and when you felt most valued, connected, and at peace – or least valued, most disconnected, and most at war with yourself and with school. Where does this question come from for you? How might your students view the issue from their perspective and experiences?

3. Literature Review

See pp. 127-134 in text.

Begin to ask yourself:

- What does the literature review add to my understanding of my research topic?
- What common topics and themes have I found in the literature?
- What ideas for pedagogical strategies can I adapt from the literature?

Use the topics to design your conceptual framework or mapping of the “big ideas” and connections you find in the literature to your study. Format is your choice, e.g. annotated bibliography, narrative, etc. Note that this is a draft and will not be in condition to just insert into your final research paper, but with feedback from critical friend(s) and the instructor and some editing your literature review will then be ready to include in your final paper.

4. Description of the Method: Data Chart & Pedagogies

See assignment description on Bb. Also see required reading exemplars: Mautz p.13; Payden pp. 10-11; Walsh p. 17

5. Peer Review of Draft 1

Post your draft for peer review. Critical friends use actual evaluation rubric to provide peer review along with tracking and comments on the peer draft.

6. Instructor Review of Draft 2 (formative assessment)

Based on your critical friend’s feedback edit your second draft and post it for review by instructor.

7. Collaborative Teacher Research Impact Presentation

The M.Ed. Program exit requirement is a teacher research impact project and presentation, which is completed during your capstone course, EDUC 675. *The Teacher Research Impact Project and Presentation is an ungraded requirement for EDUC 675*, however, students are required to successfully complete a Teacher Research Impact Presentation in order to exit and graduate from the Secondary Education program. Your grade for EDUC 675 will be posted only upon successful completion of the Teacher Research Impact Presentation.

Working independently or in small groups—likely your critical friend group—you will identify one authentic, alternative, preferably contemporary media-based method through which you will share the impact of your teacher research. While you will make a brief presentation of your individual research findings in class, the mission of this assignment is for your group to design and enact a presentation that moves the public understanding of your group members’ studies along. You might choose to create a collective presentation on your group members’ projects or you might highlight one group member’s project and findings. You might decide to present your knowledge about a theme or topic central to each of your research topics such as differentiation

or classroom environments. You might highlight the very importance of action, teacher, or practitioner research or summarize the findings of your group members' efforts. You are encouraged to display and present these findings in an alternative setting and through creative means, with your primary goal being engaging in an exercise in demonstrating the significance of your research to the broader world. You may potentially share your project with the Secondary Program Faculty and members of the larger college or educational community.

Final Teacher Research Project

For your final report, use the Research Project Headings template located on Bb and TK20 Assessment Rubric below with attention to each detail. Look at the headings posted at the beginning of the semester so you can see where you are headed. There are spaces for your final report in the template.

Please use this checklist for common errors before submitting your final research paper:

1. All teacher research reports must adhere to APA format. Your project should be useful to you and your students.
2. Use Times Roman 12 pt. font, double-spaced throughout paper including between paragraphs.
3. Do not use right justification for formatting.
4. Do not use any identifying information of students, staff, school, or school system.
5. Cite all works properly. Need at least 10 references.
6. Spell out acronyms when you note them the first time. e.g., English Language Learners (ELL)
7. Include your data chart within the text of your paper.
8. Change everything to past tense, e.g., "I collected" instead of "I will collect."
9. Include an appendix electronically only.
10. Check that your abstract is written in third person and includes an implications sentence.
11. Just clip report at the top; no report binders or plastic sleeves are necessary.

ASSESSMENT AND GRADING

Participation and Peer Review Rubric

<i>Category</i>	<i>Exemplary 15 pts.</i>	<i>Accomplished 14pts</i>	<i>Developing 13pts</i>	<i>Undeveloped Below 13 pts</i>
Assignments are central to the development of your project. Attendance and participation are critical components of this course. It gives you the	Successfully completes all assignments. Outstanding and consistent participation in discussions and class activities. Promotes	Completes all assignments. Participates in discussions and activities on a regular basis; questions and comments reveal thought and reflection	Does not complete some assignments. Does not contribute to discussions or activities very often, but generally reveals some	Few assignments completed. Few contributions to class discussions. Little evidence of participation

<p>opportunity to learn from and contribute to building a positive classroom experience and learning community. Participants contribute to each other's learning by actively listening, exchanging ideas, sharing learning from reading and websites, peer view, and supporting each other's efforts on Discussion Thread</p>	<p>conversation focused on the topic. Comments demonstrate a high level of understanding from assigned readings. Listens actively to peers. Embraces peer review; Prompts peer feedback and input. Purposely shares leadership in group work.</p>	<p>and contribution from assigned readings. Frequently involves peers in discussion. Conducts peer review; Shares leadership roles in group work.</p>	<p>thought and reflection and some contribution from assigned readings. Follows rather than leads group activities. Solicits some peer discussion and peer review. Misses classes. Is late for class. Somewhat shares leadership roles in group work.</p>	<p>and contribution. Shows little concern for peers' learning or input or peer review. Misses many classes and is late often. Does not share leadership roles in group work.</p>
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5 pt. Assignments	Rubric Description for Assignments
<p>A+ Exemplary 5+ points</p>	<p>Presents an exemplary narrative in the assignment to build her/his self-study action research project with thoughtful and relevant detail. Demonstrates a very high level of understanding and application from assigned readings. Submission reflects outstanding participation in f-t-f and online discussions and class activities and active listening and serious feedback with peers. Submitted on time. Provides exemplary peer response to assignment where relevant.</p>
<p>A Excellent 5 – 4.7 points</p>	<p>Provides a very adequate narrative in the assignment to build her/his self-study action research project with thoughtful and relevant detail which demonstrates a high level of understanding and application from assigned readings. Submission reflects excellent participation in f-t-f and online discussions and class activities and active listening and a high level feedback with peers. Submitted on time. Provides very adequate peer response where relevant.</p>
<p>A- Approaching Excellence 4.65-4.5 points</p>	<p>Provides an adequate narrative in the assignment to build her/his self-study action research project with thoughtful and relevant detail which demonstrates a good level of understanding and application from assigned readings. Submission reflects good participation in f-t-f and online discussions and class activities and active listening and serious feedback with peers. Submitted on time. Provides adequate peer response to assignment where relevant.</p>
<p>B+ Developing Less than 4.5 points</p>	<p>Provides a fair narrative in the assignment to build her/his self-study action research project with thoughtful and relevant detail which demonstrates an average level of understanding and application from assigned readings. Submission reflects average level of participation in f-t-f and online discussions and class activities and active listening and serious feedback with</p>

	peers. Needs more work. Submitted late. Does not provide adequate peer response to assignment where relevant.
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Possible Points

Attendance, Participation, and Peer Review = 15 points

Assignments of Research Project Draft Components= total of 25 points

Assignment 1: Education-related Life History (5pts)

Assignment 2: Research Question & Rationale (5pts)

Assignment 3: Draft Literature Review (5pts)

Assignment 4: Description of Method (5pts)

Assignment 5: Peer Review of Draft 1 (5pts)

includes Analysis and Preliminary Results

Assignment 6: Instructor Review of Draft 2

includes Discussion/Self-Study Reflection/Action Plan (formative)

Assignment 7: Collaborative Teacher Research Impact Presentation (Master’s Exit Req.)

Teacher Research Project (include presentation) = 60 points = PBA

Total = 100 points

Grade	Standards	Grading	Grade Points	Graduate Courses
A	Meets Standard	93 – 100	4.00	Satisfactory / Passing
A-	Meets Standard	90 – 92.9	3.67	Satisfactory / Passing
B+	Approaches Standard	88 – 89.9	3.33	Satisfactory / Passing
B	Approaches Standard	83 – 87.9	3.00	Satisfactory / Passing
B-	Approaches Standard	80 – 82.9	2.67	<i>B- is not a passing course grade.</i>

CLASS SCHEDULE

Date Online = field & Bb work	Topics	Assignment Due Post on thread before class	Readings Chapters in textbook Readings in Bb folder
Day 1: August 27 On Campus	Introductions Becoming a Teacher Researcher Self-Study Action Research Method Critical Friend Teams Finding your Research Question (RQ)	During first week, please upload your teacher artifact with a brief explanation of the artifact. Also, include your name, school you teach, and subject. In-class activity: "I wonder activity" See Critical Friend Inquiry (CFI): 1.1 pp. 5-6	During first week, read Preface, Chapter 1 & Appendix A Overview Teacher Research exemplars from Fall 2015 on Bb
September 3	Labor Day - NO CLASS University Closed		
Day 2: September 10 On Campus	Refining your RQ Drafting a Rationale and Argument Using the literature to inform your study Guest Speaker: 6 PM Anne Driscoll, Education Librarian	Assignment 1: Education-related life history (use pp. 95-98 text)	Read Samaras & Roberts article 2011 Read Chapters 2 & 4 See Table 2.1 to draft your timeline Read <i>Madden and Mautz</i> focus on <u>Intro/Rationale</u>
Day 3: September 17 Online	Conduct your Literature Review using electronic databases (see p. 137)	Assignment 2: RQ & Rationale (p. 124 text)	Read Chapter 8 Read <i>Saxena</i> , focus on <u>Literature Review</u>
Day 4: September 24 On Campus	Data Collection! Ethical Teacher Researcher		Read Hosteler, Hawley, Crowe Read Chapters 6 & 7 Read <i>Mautz</i> , focus on <u>Design & Timeline</u>
Day 5: October 1	Collect Data in the Field	Assignment 3: Draft Literature Review	Read Chapter 9 Read <i>Payden and Walsh</i> , focus on <u>Method</u>

Online and Field Work			
October 8	Columbus Day Recess – NO CLASS		
Day 6: *October 9 <i>Mon classes meet instead of Tues class this day only</i> On Campus	Dialogue Circles of Pedagogical Strategies In-class group consultations Critical Friends <u>5:00-7:00 pm</u>	Assignment 4: Description of Method: Include Data Chart with Pedagogical Strategies	Read Chapter 10 Read <i>Sprague</i> <u>focus on Analysis</u> Mautz p.13 Payden pp. 10-11 Walsh p. 17
Day 7: October 15 Online	Dialogue Circles of Pedagogical Strategies Google Hangout consultations Critical Friend Teams exchange Methods section for peer review		No readings this week
Day 8: October 22 On Campus	Assessing Research Quality Validation and Writing Workshop In-class group consultations Critical Friend Teams <u>5:00-7:00 pm</u>	Work on Draft 1 Move data charts into narrative format	Read Chapter 11 Read <i>Sprague</i> , <u>focus on Results</u>
Day 9: October 29 Online	Peer Review of Draft Video Consultations	Post Draft 1 for peer review with analysis and preliminary results in Assignment 5 thread.	Read Chapter 12 Read <i>Walsh</i> , <u>focus on Discussion & Critique & Appendix</u>
Day 10: November 5 Online	Write your Results Video Consultations	Assignment 5: Peer Review of Draft 1 with tracking & comments	No readings this week Write, write, and write!

Day 11: November 12 On Campus	Writing of Discussion, Critique, and Abstract In-class check-ins	Assignment 6: Instructor Review of Draft 2 with results and discussion	No readings this week
Day 12: November 19 <i>Online</i>	Group Work on Teacher Impact Presentation	Meet with group to finalize presentation	No readings this week <i>Happy Thanksgiving!</i>
Day 13: November 26 On Campus	Teacher Impact Group Presentations Final In-class check-ins	Assignment 7: Collaborative Teacher Impact Presentation Review instructor feedback and finalize paper	No readings this week
Day 14: December 3 On Campus	Closing Activities & Informal presentation of Self-Study of Teaching: In 5 minutes tell us: 1. Ways your thinking changed from enacting your study 2. Ways your practice has changed 3. Most valuable insight/and productive mistake 4. Next steps/action plan	Final Teacher Research Project >> upload to Assessments/TK20	No readings this week

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times. See <https://cehd.gmu.edu/students/policies-procedures/>

The Graduate School of Education (GSE) expects that all students abide by the following: Students are expected to exhibit professional behavior and dispositions.

Commitment to the profession

- Promoting exemplary practice
- Excellence in teaching and learning
- Advancing the profession

Engagement in partnerships

Commitment to honoring professional ethical standards

Fairness

Honesty

Integrity

Trustworthiness

Confidentiality

Respect for colleagues and students

Commitment to key elements of professional practice

Belief that all individuals have the potential for growth and learning

Persistence in helping individuals succeed

High standards

Safe and supportive learning environments

Systematic planning

Intrinsic motivation

Reciprocal, active learning

Continuous, integrated assessment

Critical thinking

Thoughtful, responsive listening

Active, supportive interactions

Technology-supported learning

Research-based practice

Respect for diverse talents, abilities, and perspectives

Authentic and relevant learning

Commitment to being a member of a learning community

Professional dialogue

Self-improvement

Collective improvement

Reflective practice

Responsibility

Flexibility

Collaboration

Continuous, lifelong learning

Commitment to democratic values and social justice

Understanding systemic issues that prevent full participation

Awareness of practices that sustain unequal treatment or unequal voice

Advocate for practices that promote equity and access

Respects the opinion and dignity of others

Sensitive to community and cultural norms

Appreciates and integrates multiple perspectives

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/>.
- 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/students/> .

Emergency Procedures

You are encouraged to sign up for emergency alerts by visiting the website <https://alert.gmu.edu>. There are emergency posters in each classroom explaining what to do in the event of crises. Crisis in Education App at: <https://itunes.apple.com/us/app/in-case-of-crisis-education/id476578079?mt=8>

Sustainability at GMU

George Mason University is focusing on making our community “greener” and reducing the impact on the environment. This course will contribute to this effort in the following ways:

- Syllabus, assignments, and all Lesson Guides and Handouts will be available electronically before class on Blackboard.
- All assignments will be submitted through Blackboard.
- Incorporate teaching sustainability in the content of your lesson plans (for example, human’s role in reducing their impact on the environment.) Think and teach about what the next generation needs to know about “greening.” Please consider reducing waste in your teaching practice.

Human Subjects Research Review Process

Any research that is generalizable must have prior approval of the GMU Human Subjects Review Board (HSRB). Research conducted for this course is used solely for the purpose of learning pedagogical aspects and may be conducted without additional permission. You need to inform your school administrator that you are learning and enacting self-study action teacher research to improve your teaching and student's learning. Detailed information on what is involved in submitting a proposal to the Review Board is available from the following web site:

<http://oria.gmu.edu/>

EDUC 675, “Research in Secondary Education”
Teacher Research Project Description and Assessment Rubric (60 points)
(Includes suggested page lengths for each section)

Title Page and Abstract (2 points possible)

Your title can be as creative as you like—take researcher/artistic license with this. In 125 to 150 words, what was your study about? What was your major finding? An abstract writing strategy: take one sentence from each section of your final project (introduction, literature review, methodology, findings, and discussion) to craft the perfect abstract. Consider the following questions as you draft your title and abstract:

- 1) Have you provided a single, articulate, concise paragraph of no more than 150 words?
- 2) Does your abstract concisely describe your purpose and the context, method, key findings, and significance of your research?

Suggested 2 pages: 1 page for title, 1 page for abstract				
Rubric Score	Does not meet expectations 0	Approaches expectations 1	Meets expectations 2	Exceeds expectations 3
Grade Score	F Less than 1.4 points	C 1.4 – 1.5 points	B to B+ 1.6 – 1.7 points	A- to A 1.8 – 2 points
Title and Abstract	Project is so brief, incomplete, or off-topic that any reasonably accurate assessment is impossible.	Project includes only general statements about the study. Information on methods and procedures to be followed is sketchy or missing. Falls short of 150 words or greatly exceeds the 150-word limit	Project includes an identifiable summary (max 150 words) that addresses the purpose of the study. Touches on methods and procedures to be followed, but is not sharply focused.	Project includes a concise (max 150 words) summary that reports factually on the purpose of the study and the methods and procedures to be followed.

Introduction, Rationale, Area of Focus, and Research Questions (5 points possible)

Briefly describe the setting, including the community, school, students, and other relevant information. Demographic information in your introduction should focus on your school, while demographic information in your methodology should focus specifically on the students you worked with in your study. What is the purpose of your study? What problem or issue are you addressing? Describe why the concerns are important to you and what your research might help you learn as a result of its conduct. What is its background and significance? What is (are) your research question(s)? Do you have a hypothesis? If so, what is it and how did you formulate it? Be sure that your research questions steer you toward a descriptive response. Consider the following questions as you draft your introduction, rationale, area of focus, and research questions:

- 1) Have you explained the outgrowth of your study?
- 2) Have you offered perspectives that shaped this question for you?
- 3) Have you situated the study in terms of explaining the outgrowth of these questions in the context of your work? (e.g., your students, classroom, school, district)

- 4) Have you clearly and concisely explained why this research is important? Have you addressed the broader educational and social significance of this research?
- 5) Have you clearly and concisely stated the research problem?
- 6) Have you clearly and concisely stated your main research question and any sub-questions?

Suggested 3-4 pages				
Rubric Score	Does not meet expectations 0	Approaches expectations 1	Meets expectations 2	Exceeds expectations 3
Grade Score	F Less than 3.5 points	C 3.5 – 3.9 points	B to B+ 4 – 4.4 points	A- to A 4.5 – 5 points
Introduction, Rationale, Area of Focus, and Research Questions	Project is so brief, incomplete, or off topic that any reasonably accurate assessment is impossible.	Project includes minimal information on the context/theoretical framework for the study. Does not offer a rationale for the study's execution, or does so only superficially. Explicitly states the research question and purpose of the study.	Project includes an adequate context/theoretical framework for the study and a defensible rationale for its execution, though one or both may be weakly developed. Explicitly states the research question and purpose of the study.	Project includes a sound context/theoretical framework for the study and a compelling rationale for its execution. Clearly and explicitly states the research question and purpose of the study.

Literature Review (8 points possible)

In order to properly address a research question you need to be familiar with previous investigations of your topic. You should conduct a literature review in which you cite and synthesize a minimum of ten (10) sources and discuss how they informed your design. Teacher research appeals to a broad range of research resources, including reports of teachers' experiences. Transitions should connect one annotated source with the next. At the end of the literature review, include a one-paragraph summary of the major discoveries in your review, connecting these to the focus of your study. References must be from refereed journals, books (generally not textbooks), curriculum resources, and scholarly compilations. NOTE: The literature review should emphasize synthesis and analysis (Bloom, 1956, 1984). *Use direct quotes very sparingly.* Craft your literature review as a story of the study of your topic.

Consider the following questions as you draft your literature review:

- 1) Did you conduct an ongoing literature review which informed your research?
- 2) Is the review relevant and connected to your study?
- 3) Is the review adequate, coherent, and analytical?
- 4) Does the review include references from a variety of sources?
- 5) Is the review integrated into a conceptual framework with a mapping of the theories, literature, and phenomena that help to inform your study?

Suggested 4-6 pages				
Rubric Score	Does not meet expectations 0	Approaches expectations 1	Meets expectations 2	Exceeds expectations 3
Grade Score	F Less than 5.6 points	C 5.6 – 6.3 points	B to B+ 6.4 – 7.1 points	A- to A 7.2 – 8 points
Literature Review	Project is so brief, incomplete, or off-topic that any reasonably accurate assessment is impossible.	Project includes fewer than 8 peer-reviewed cites, published reports of empirical research. Does not explicitly highlight gaps in the literature to which the proposed study will respond. Summarizes cited works sequentially, rather than synthesizes and organizes them thematically. Relies heavily on direct quotes.	Project includes at least 8 peer-reviewed cites, published reports of empirical research. Highlights gaps in the literature to which the proposed study will respond. Organizes the literature by identifiable themes, although organization within themes may follow no clear or consistent pattern of presentation. Attempts to synthesize referenced sources. Uses few direct quotes.	Project includes at least 10 peer-reviewed cites, published reports of empirical research. Highlights gaps in the literature to which the proposed study will respond. Organizes the literature by clearly identifiable themes, proceeding from general to more specific within each theme. Effectively synthesizes referenced sources, using few, if any, direct quotes.

Description of the Method (15 points possible)

In this section describe how you implemented your research. Include a description of subjects (i.e., students, teachers, administrators), the context of the research, the strategies and materials (put sample material in an appendix), the number and total time of each research session, and a complete description of the methodologies. Repeat your question(s) in this section—remind us often what you are studying. Describe how you selected your subject sample—why did you choose these individuals and who are they, in terms of gender, ethnicity, age, grade level, language/culture, and educational achievement? Describe ALL of your methods, including what influenced the selection of your methodology and design, what measures you took to assure the validity of your study, and how you triangulated your data. Be sure to include a table and timeline of your methods—what you collected and when. Be sure to describe what type of data you collected—for example, did you do a needs assessment (e.g., via a test) to address student achievement, and then design and implement a new instructional strategy? Or did you observe a group of students to see how they behaved in a particular context, and then interview them to ascertain their reasons? Did you do a series of in-depth interviews with students or teachers? How do the data relate to your research question? How do they relate to your masters curriculum? Finally, describe how you planned to make sense of—analyze—your data in light of your research question(s). Provide rich descriptions of HOW you reviewed your data, the themes that became apparent in your reviews, and your ultimate findings. Consider the following questions as you draft your literature review:

- 1) Have you described your research context, including your community, school, and classroom contexts?

- 2) Have you included demographic information of participants?
- 3) Did you include your reflection of the problem (e.g., behaviors observations, possible causes)?
- 4) Have you explained the reasons for your pedagogies based on your observations of your classroom and the literature reviewed?
- 5) Have you described in detail what data you collected, how you collected it, and when you collected it, including data generated from your pedagogies and strategies?
- 6) Are your data from multiple sources?
- 7) Did you include a description of the pedagogical strategies you enacted?
- 8) Did you explain how you analyzed your data?
- 9) Have you included and explained the role of your peers in your data interpretations and validation?
- 10) Did you explore using visuals and technologies for analyzing and displaying your findings in a coherent manner?

Suggested 4-6 pages				
Rubric Score	Does not meet expectations 0	Approaches expectations 1	Meets expectations 2	Exceeds expectations 3
Grade Score	F Less than 10.5 points	C 10.5 – 11.9 points	B to B+ 12 – 13.4 points	A- to A 13.5 – 15 points
Description of the Method	Project is so brief, incomplete, or off-topic that any reasonably accurate assessment is impossible.	Project includes explanation of the study design, procedures followed, sampling methods, and analytical tools (including any statistical tests), given the stated purpose of the study; explanations, however, are not fully developed. Mentions ethical issues raised by the study but addresses them only superficially.	Project includes explanation of the study design, procedures followed, sampling methods, and analytical tools (including any statistical tests), given the stated purpose of the study. Discusses ethical issues raised by the study and how they were addressed.	Project includes explanation and justification of the appropriateness of the study design, procedures followed, sampling methods, data collection and analytical tools (including any statistical tests), given the stated purpose of the study. Discusses ethical issues raised by study and explains how they were addressed.

Results and Findings (15 points possible)

In this section, indicate what you discovered or found as a result of your data gathering. Focus on results that are related to your research concern and answer your research questions or shed light on your research hypotheses. Introduce your findings before you begin to describe them, and remind us of your research question again. Organize this section in a way that makes sense for your data/findings—by student, by theme, by data source, etc. Use illustrative examples from your data to SHOW us your findings. Use tables to summarize and SHOW us what you’ve learned. Focus on what’s truly interesting in your findings, even if you have limited data to support this. Feel free to use mini case studies to illustrate your findings, through the lens of a few students. Remember that the goal is to share what you learned about your teaching for yourself first; our goal is not NECESSARILY to extract findings that will

be generalizable across EVERY teaching setting. Interpret your data in as much detail as possible, describing whether or not—or how—your findings corroborated your expectations. Were there any surprises in your findings? Can you think of alternative explanations for your findings? Consider the following questions as you draft your results/findings:

- 1) Did you restate your research question and what was found through your research?
- 2) Are the findings thoroughly and adequately presented?
- 3) Is there convincing evidence to support your themes?
- 4) Is there connection and coherence among the separate themes?
- 5) Did you explain your findings to peers and colleagues to gain their perspectives on your interpretations?

Suggested 8-12 pages				
Rubric Score	Does not meet expectations 0	Approaches expectations 1	Meets expectations 2	Exceeds expectations 3
Grade Score	F Less than 10.5 points	C 10.5-11.9 points	B to B+ 12-13.4 points	A- to A 13.5-15 points
Results and Findings	Project is so brief, incomplete, or off-topic that any reasonably accurate assessment is impossible.	Project includes reporting and interpretation of narrative and numerical data with little apparent concern for accuracy and objectivity. Analytical tools are inappropriate to the methodology. Provides, at best, tenuous links between study outcomes, hypotheses (if stated), and the original research question.	Project includes reporting and interpretation of narrative and numerical data accurately, objectively, and concisely. For the most part, analytical tools are appropriate to the methodology. Does not highlight explicit links between study outcomes, hypotheses (if stated), and the original research question; however, such links may logically be implied.	Project includes reporting and interpretation of narrative and numerical data accurately, objectively, and concisely using analytical tools appropriate to the methodology. Highlights explicit links between study outcomes, hypotheses (if stated), and the original research question.

Discussion. Reflection. Implications. Recommendations. Impact Presentation. and Action Plan (10 points possible)

In this section reflect on the findings of your data collection and discuss what they might mean to you as a teacher and teacher researcher. What did you learn from the study? How did it relate to your masters curriculum? How will it influence your teaching—that is, based on the results and themes that emerged from the study, what changes will you make in your teaching? How will you share these findings with others—specifically, how did you share your project and its results via your “Impact Presentation”? What are the implications for future research? Speculate on what it would mean if your data pointed in one direction versus another. Again, focus on what’s truly interesting in your data/findings, even if you have limited information to support this. Make some bold recommendations for how we might serve students better. Be sure to describe what all of this information—the teacher research process, your data, your findings—mean to you as a professional and a person. Describe how you might share the findings of your

paper—with your principal, your grade level team, other teachers who are working with these students, use it in a workshop, claim it as an area of expertise on your resume, etc. Be sure to describe potential implications of your study and its findings for other teachers and for education policymakers. Consider the following questions as you draft your discussion, reflection, implications, recommendations, and action plan:

- 1) Have you adequately explained the implications of your study for your students' learning?
- 2) Have you adequately explained the implications of your study for your professional development?
- 3) Have you adequately explained the implications of your study for your teaching and reframing of your practice?
- 4) Have you adequately explained the implications of your study for the education field?
- 5) Have you adequately explained the relevance of your study for national and state education standards?
- 6) Have you discussed any limitations?
- 7) Have you identified areas for future research possibilities?

Suggested 4-6 pages				
Rubric Score	Does not meet expectations 0	Approaches expectations 1	Meets expectations 2	Exceeds expectations 3
Grade Score	F Less than 7 points	C 7 – 7.9 points	B to B+ 8.0 – 8.9 points	A- to A 9 – 10 points
Discussion, Reflection, Implications, Recommendations, and Action Plan	Project is so brief, incomplete, or off topic that any reasonably accurate assessment is impossible.	Project addresses practical implications of study findings including how they will be shared with others. Attempts to discuss threats to validity, but does so superficially and/or fails to offer antidotes. Does not consistently support assertions or interpretations using sound arguments consistent with study findings. Does not describe recommendations for future research, or how results will be applied in practice.	Project addresses theoretical/practical implications of study findings including how they will be shared with others. Highlights threats to validity, reporting on how they were addressed. Supports assertions/interpretations using sound arguments consistent with study findings. Does not describe recommendations for future research, or how results will be applied.	Project includes evaluation of the study's strengths and weaknesses. Addresses theoretical/practical implications of study findings including how they will be shared with others. Highlights threats to validity, reporting on how they were addressed. Supports assertions/interpretations using sound arguments consistent with study findings. Describes recommendations for future research, and how results will be applied in the practice.

References, Appendices, Writing Styles, Mechanics, and General Notes (5 points possible)

Include a complete list of references in APA format. Append all appropriate materials, including, if relevant, any questionnaires, inventories, assessments, sample student work, etc. Include at least one example of each tool you use—it's ideal to include one blank version and one version completed by one of your research subjects. In addition, follow these general guidelines:

- The model for your study report is not a masters thesis nor traditional class research paper, but rather an article prepared for submission to a journal that focuses more on practice than theory.
- You may find it helpful to select a journal whose research emphasis and readership match your research topic and follow its manuscript submission criteria.
- It is expected that the entire project will be described in a 25-30 page paper; please do not exceed the 30-page limit.
- Write in the past tense as much as it makes sense to do so
- Your paper does not have to be anonymous; you can include names, as this is an internal document and will not be shared anywhere outside of our class
- Be sure to make a personal and professional connection to your topic and project
- Citations are not necessary in the introduction
- Feel free to revise your questions based on data, to make these questions more focused

Consider the following questions as you draft your references and appendices and consider the overall writing quality of your paper:

- 1) Did you follow the APA style for the report for a running head, page numbering, references, citations, and the appendix?
- 2) Does the report include a title page with project title, author's name, and author's professional affiliation?
- 3) Are references current and from different sources?
- 4) Are all references cited in the research report included in the references? Have you provided a complete reference list of all print and non-print (Internet) references?
- 5) Is the report coherent, concise, and well structured with a clear purpose?
- 6) Is the report grammatically correct with proper usage of language?
- 7) Does the report have your distinctive focus and voice? Have you used professional language (i.e., no jargon)? Have you written in an accessible style and presentation?

Rubric Score	Does not meet expectations 0	Approaches expectations 1	Meets expectations 2	Exceeds expectations 3
Grade Score	F Less than 3 points	C 3 – 3.9 points	B to B+ 4 – 4.4 points	A- to A+ 4.5 – 5 points
References, Appendices, Writing Styles, Mechanics, and General Notes	Paper is so brief, incomplete, or off-topic that any reasonably accurate assessment is impossible.	Paper falls short of accepted standards for master's level composition. Drafting errors and error patterns are widespread. Voice, verb tense, and writing style vary from section to section. Technical terms are used incorrectly and/or imprecisely, reflecting only a rudimentary understanding of the underlying concepts. Text is formulaic, relying heavily on paraphrases and "borrowed" materials not formally cited. Transitions are weak, contributing to an apparent lack of direction. Paper does not adhere to formatting specifications provided in course text and materials. Citations and references page do not follow APA style.	Paper is well written with few notable drafting errors. Voice, verb tense, and writing style are generally consistent with few exceptions that do not substantially diminish readability. Most technical terms are used correctly, reflecting adequate understanding of the underlying concepts. Text is original, but opinions and propositions are not consistently supported by logic and references to published research. Transitions do not connect sections seamlessly but do not substantially diminish readability. Paper does adhere to formatting specifications provided in course text and materials. Citations/references page do not follow APA style.	Paper is well written with no notable drafting errors. Voice, verb tense, and writing style are consistent throughout. Technical terms are used precisely and accurately, reflecting a firm understanding of underlying concepts. Text is original; opinions and propositions are supported by strong logic and formal references to published research. Sections are linked with unifying transitions, giving the report a clear sense of direction. Paper adheres to formatting specifications provided in course text and materials. Citations/references page follow APA style.

Grading Scale for Research Project

60 points: Substantially meets the project and report requirements. All criteria are addressed fully.

56-59 points: Meets the project and report requirements. Criteria adequately addressed.

55-53 points: Meets some, but not all, of the project and report requirements. Weaknesses in addressing some of the criteria.

53 points and below: Does not meet the project and report requirements. Weaknesses in addressing the majority of the criteria.

Please note that B- is not a passing grade