

North Dakota State University Educational Leadership Course Syllabus EDUC 703 Research, Measurement & Program Evaluation Fall 2011 Sixteen weeks beginning Thursday, August 25	
Instructor: Thomas Hall, Ed. D.	Office: 210 FLC - NDSU
E-mail: thomas.e.hall@ndsu.edu	Credit Hours: 3 semester hours
Office Telephone: (701) 231-8589	Class Dates/Time: Hybrid (Online/IVN-ITV) check class schedule (on page 3) for more detail. EML 183 (NDSU Campus) will be used from 7:00-9:50 p.m. on Thursday's August 25, September 1, 8, 15, October 13, November 17, December 1, & 8. All other class meetings will be on-line.
Required Texts: Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). <i>How to design and evaluate research in education</i> (8 th ed.). New York: McGraw-Hill. American Psychological Association. (2010). <i>Publication Manual of the American Psychological Association</i> (6 th ed.). New York: American Psychological Association. Other Resources: Textbook website – www.mhhe.com/fraenkel8e	

Special Note: The instructor of this course reserves the right to change, alter, and/or adjust the contents of this syllabus – assignments made – and/or course schedule when he deems it appropriate during the semester.

A. Course Description

Methodology and design of research studies: organizational reporting analysis, and interpretation of research.

B. Purpose

The purpose of this course is to gain an understanding of the methods of research and the organization, reporting, analysis, and interpretation of research. The conceptual framework for this course is based on the mission statement of the College of Human Development and Education at North Dakota State University:

“The mission of the College of Human Development and Education at North Dakota State University is to provide educational programs and conduct research and other scholarly activities that focus on the lives of individuals and their families as they interact in work, educational, and living environments.”

C. Course Objectives

- * Understand the theory and practice of various approaches to quantitative and qualitative research.
- * Know the effective use of various statistical measures in the implementation of quantitative research.
- * Know the effective use of interviewing and observation in the practice of qualitative research.
- * Understand the role of research in educational settings and how it is applied both in practice and theoretical development.
- * Demonstrate competence in evaluating, interpreting, and using research data.
- * Understand the relationship between professional activity and research.
- * Demonstrate an understanding of methods of inquiry and techniques appropriate for investigation in the field.

D. Performance Outcomes

This course is organized to improve researcher effectiveness using several intended outcomes. A range of assigned readings, lectures, class activities, and practical assignments have been planned to assist in achieving the identified objectives of the course. It is expected that acceptable performance on all of the organized course activities will lead to satisfaction of the following ELCC Standards:

Standard	Element	Sub-element/ Course Objectives	Assessment/ Artifact
Standard 2.0: Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by promoting a positive school culture, providing an effective instructional program, applying best practice to student learning, and designing comprehensive professional growth plans for staff.	2.3 Apply Best Practice to Student Learning	c. Candidates demonstrate an understanding of how to use appropriate research strategies to promote an environment for improved student achievement.	Journal Article Critiques Thesis/Dissertation Critique Research Proposal (abridged) Action Research Plan
Standard 6.0: Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context.	6.1 Understand the Larger Context	a. Candidates act as informed consumers of educational theory and concepts appropriate to school context and can demonstrate the ability to apply appropriate research methods to a school context.	Journal Article Critiques Thesis/Dissertation Critique Research Proposal (abridged) Action Research Plan

E. <i>Class Schedule</i> (subject to change)	
Week	Assignments & Activities
Pre-Class	Prior to class, please read Chapter 1 - <i>The Nature of Research</i> , and Chapter 2 - <i>The Research Problem</i> of the Fraenkel textbook as we will discuss this during our first face-to-face class (Opening Session) August 25 th .
Opening Session “Face-to-Face” Meeting #1 August 25 from 7:00-9:50 p.m. Week of August 25-31	*Course Overview & Syllabus Review *Review of Chapters 1 & 2 of the Fraenkel textbook. *Evaluating Research Articles/Reports *Student Chapter Presentation Assignments This week: Unit 1 *Watch the Power Point Video – <i>Write It Right</i> posted on our course Blackboard web site. *Read Chapter 3 - <i>Locating & Reviewing the Literature</i> , Chapter 5 - <i>Variables & Hypotheses</i> , Chapter 6 – <i>Sampling</i> , and Chapter 24 – <i>Action Research</i> of the Fraenkel textbook. **No online discussion this week.
“Face-to-Face” Meeting #2 September 1 from 7:00-9:50 p.m. Week of September 1-7	*Guest Presentation by Char Myhre - Senior Reference & Instruction Librarian / School of Education Library Liaison. Subject: Effectively using of library resources in your academic research. *Student Presentations of Chapter 5, 6, and 24. This week: Unit 2 *Read Chapter 4 - <i>Ethics & Research</i> , Chapter 7 – <i>Instrumentation</i> , Chapter 8 – <i>Validity & Reliability</i> , and Chapter 9 – <i>Internal Validity</i> . **No online discussion this week.
“Face-to-Face” Meeting #3 September 8 from 7:00-9:50 p.m. Week of September 8-14	*Student Presentations of Chapters 7, 8, and 9. *Guest Presentation – Kristy Shirley, Research Compliance Administrator – IRB-NDSU This week: Unit 3 *Read Chapter 10 – <i>Descriptive Statistics</i> , Chapter 11 – <i>Inferential Statistics</i> , Chapter 12 - <i>Statistics in Perspective</i> , Chapter 13 – <i>Experimental Research</i> , and Chapter 14 – <i>Single-Subject Research</i> **No online discussion this week.
“Face-to-Face” Meeting #4 September 15 from 7:00-9:50 p.m. Week of September 15-21	Facilitator – Dr. Ann Clapper *Guest Presentation - Dr. Anita Welsh – Assistant Professor (Topic: Statistics 101) *Student Presentations of Chapters 13 & 14 This week: Unit 4 Read Chapter 15 – <i>Correlational Research</i> **No online discussion this week.

Week of September 22-28	<p>This week: Unit 5</p> <p>*Ning Online Group Discussion #1</p> <p>The instructor will post a discussion prompt on September 22. Please respond to the posted question by 11:59 p.m. Sunday, September 25 and to the posts of two of your peers by 11:59 p.m. Wednesday, September 28.</p> <p>*Read Chapter 16 – <i>Causal-Comparative Research</i></p>
Week of September 29-October 5	<p>This week: Unit 6</p> <p>* Ning Online Group Discussion #2</p> <p>The instructor will post a discussion prompt on September 29. Please respond to the posted question by 11:59 p.m. Sunday, October 2 and to the posts of two of your peers by 11:59 p.m. Wednesday, October 5.</p> <p>*Read Chapter 17 – <i>Survey Research</i></p>
Week of October 6-12	<p>This week: Unit 7</p> <p>* Ning Online Group Discussion #3</p> <p>The instructor will post a discussion prompt on October 6. Please respond to the posted question by 11:59 p.m. Sunday, October 9 and to the posts of two of your peers by 11:59 p.m. Wednesday, October 12.</p> <p>*Read Chapter 18 – <i>The Nature of Qualitative Research</i>.</p>
<p>“Face-to-Face” Meeting #5</p> <p>October 13 from 7:00-9:50 p.m.</p> <p>Week of October 13-19</p>	<p>* Student Presentations of Chapters 15, 16, 17 & 18.</p> <p>* Critical Assignment #1 - Research Article Critiques due today, Oct. 13.</p> <p>This week: Unit 8</p> <p>*Read Chapter 19 – <i>Observation and Interviewing</i></p> <p>**No online discussion this week.</p>
Week of October 20-26	<p>This week: Unit 9</p> <p>*Ning Online Group Discussion #4</p> <p>The instructor will post a discussion prompt on October 20. Please respond to the posted question by 11:59 p.m. Sunday, October 23 and to the posts of two of your peers by 11:59 p.m. Wednesday, October 26.</p> <p>*Read Chapter 20 – <i>Content Analysis</i>.</p> <p>*Work on Critical Assignment #2.</p>
Week of October 27-November 2	<p>This week: Unit 10</p> <p>*Ning Online Group Discussion #5</p> <p>The instructor will post a discussion prompt on October 27. Please respond to the posted question by 11:59 p.m. Sunday, October 30 and to the posts of two of your peers by 11:59 p.m. Wednesday, November 2.</p> <p>*Read Chapter 21 – <i>Ethnographic Research</i></p> <p>*Work on Critical Assignment #2.</p>

Week of November 3-9	<p>This week: Unit 11</p> <p>*Ning Online Group Discussion #6</p> <p>The instructor will post a discussion prompt on November 3. Please respond to the posted question by 11:59 p.m. Sunday, November 6 and to the posts of two of your peers by 11:59 p.m. Wednesday, November 9.</p> <p>*Read Chapter 22 – <i>Historical Research</i>.</p> <p>*Please work on Critical Assignment #3.</p>
Week of November 10-16	<p>This week: Unit 12</p> <p>*Ning Online Group Discussion #7 (final Ning discussion)</p> <p>The instructor will post a discussion prompt on November 10. Please respond to the posted question by 11:59 p.m. Sunday, November 13 and to the posts of two of your peers by 11:59 p.m. Wednesday, November 16.</p> <p>*Read Chapter 23 – <i>Mix-Methods Research</i></p> <p>*Please work on Critical Assignment #3.</p>
<p>“Face-to-Face” Meeting #6 November 17 from 7:00-9:50 p.m.</p> <p>Week of November 17-23</p>	<p>* Student Presentations of Chapters 19, 20, & 21.</p> <p>* Critical Assignment #2 - Thesis/Dissertation Critique due today, Nov. 17.</p> <p>This week: Unit 13</p> <p>*Read Chapter 25 – <i>Preparing Research Proposals and Reports</i></p> <p>*Please work on Critical Assignment #3.</p>
Week of November 24-30	Happy Thanksgiving – No Assignments
<p>“Face-to-Face” Meeting #7 December 1 from 7:00-9:50 p.m.</p> <p>Week of December 1-7</p>	<p>* Student Presentations of Chapters 22, 23 & 25</p> <p>*Critical Assignment #3 (a or b) – Research Proposal (abridged)/Action Research Plan due today, December 1.</p> <p>This Week: Unit 14</p> <p>*Put together your Power Point Presentations (10 minutes maximum) on your completed Research Proposal or Action Research Plan for December 8th class.</p>
<p>Closing Session</p> <p>“Face-to-Face” Meeting #8 December 8 from 7:00-9:50 p.m.</p>	<p>*Student Research Proposal or Action Research Plan Power Point Presentations – Names will be randomly selected and you will be allotted a maximum of 10 minutes to present your Research Proposal or Action Research. All presentations will be timed so that we can provide as many opportunities to present as possible. All Power Point presentations are due to be handed into the instructor today – December 8.</p>

F. Course Requirements

1. Seven (7) times during the semester students will be asked to post an answer(s) to question(s) provided by the instructor and respond to two peer postings. These “discussions” will be facilitated using the course Ning Social Networking site. Each posting will be worth four point for a total possible of **28** points. Late posts will be subject to point reduction.
2. Eight (8) times during the semester we will meet face-to-face (or over the IVN/ITV teleconferencing system if you are taking the class from a distant location). Students will receive four points for each session attended or a total of **32** for participating in all eight sessions. All sessions will be streamed for those who are unable to attend. See Important Information Regarding Missed Classes on page 7 for more information.
3. Chapter Review Presentation – During our first face-to-face class meeting (Thursday, August 25th) each student will be assigned a Chapter from the Fraenkel textbook to present (in review fashion) in class. You will have 30 minutes (maximum) to present your assigned chapter. Incorporating an element of media and/or class group discussion component into your lecture/power point presentation will enliven it to your audience. This chapter presentation will be worth a possible 40 points.

G. Critical Assignments

1.	Research Article Critiques – Two (2) research article readings/critiques will be done using the “Guide” found in Appendix A. Each critique will be worth a possible 15 points or a total of 30. Both critiques will be due October 13 th .
2.	Thesis/Dissertation Critique – One (1) thesis/dissertation critique will be done using the “Guide” found in Appendix B. The critique will be worth a possible 30 points and will be due November 17 th .
3a.	<p>Research Proposal (abridged) & Power Point – This assignment is designed primarily for students who are planning to write a Master’s thesis or paper at the end of their program. Students who select this Critical Assignment option will write a 10-15 page abridged Research Proposal (inclusive of title page, abstract, and Reference page) on a selected topic relevant to their professional interests and goals. Proper APA (6th edition) formatting is required. If you feel that you could use some assistance with your APA formatting, please watch the YouTube video found at: http://www.youtube.com/watch?v=9pbUoNa5tyY.</p> <p>This assignment will be worth a possible 40 points and will be due December 1st. From this paper, you will develop a 10 minute (maximum) Power Point Presentation to be</p>

	given at our final face-to-face class session on December 8 th . Due to the size and time constraints of the class, names will be randomly selected for this presentation. Instructions for writing the Research Proposal can be found in Appendix C.
3b.	<p>Action Research Plan & Power Point – This assignment is designed primarily for students who are planning to do a Portfolio as their final disquisition project. Students who select this Critical Assignment option will design a 10-15 page Action Research Plan (inclusive of title page, abstract, and Reference page). Proper APA (6th edition) formatting is required. If you feel that you could use some assistance with your APA formatting, please watch the YouTube video found at: http://www.youtube.com/watch?v=9pbUoNa5tyY.</p> <p>This assignment will be worth a possible 40 points and will be due December 1st. From this paper, you will develop a 10 minute (maximum) Power Point Presentation to be given at our final face-to-face class session on December 8th. Due to the size and time constraints of the class, names will be randomly selected for this presentation. Instructions for writing the Action Research Plan can be found in Appendix D.</p>

H. <u>Grading</u>	
Grading Format	
Points Earned	Grade
180-200	A
160-179	B
140-159	C
Below 140	F

Note: Any student earning between 140-159 points will have an opportunity to re-submit deficient work in an attempt to increase their grade from a C to a B. This, however, will not apply to students earning 160 points or above.

I. Important Information Regarding Missed Classes

If you have to miss a class you must do the following: 1) view the archive of the class missed on Blackboard and 2) write a one page summary and one page reflection (12 font, single spaced) of the missed session. This summary & reflection will be due to the instructor (e-mail) by the Thursday following the missed class session. Failing to comply with this component of the class will result in a 5 point subtraction of total points earned.

To view the class stream go to:

<http://134.129.203.38/tcs/#page:conferenceList&status:recorded&pageNumber:1>

This will take you to the Tandberg Content Server. When this page opens go to the “Search” window at the top of the page and type in NDSU EDUC 703 and then press enter. This will take you to the page where you’ll find our class stream. They are listed by date. Click the one you

wish to watch. If this does not work for you let me know so that I can follow-up and get things corrected.

J. Professional Ethics

All work in this course must be completed in a manner consistent with NDSU Senate Policy, Section 335: Code of Academic Responsibility and Conduct:
<http://www.ndsu.nodak.edu/policy/335.htm>

The academic community is operated on the basis of honesty, integrity, and fair play. Occasionally, this trust is violated when cheating occurs, either inadvertently or deliberately Faculty members may fail the student for the particular assignment, test, or course involved, or they may recommend that the student drop the course in question, or these penalties may be varied with the gravity of the offense and the circumstances of the particular case.

Rights and Responsibilities of Community: A Code of Student Conduct,
 1993, pp. 29-30.

As members of the community of educators, students in EDUC 703 are expected to support the code of professional ethics. Plagiarism and other acts of academic dishonesty will not be tolerated.

Academic dishonesty can be divided into four categories and defined as follows:

- Cheating: Intentionally using or attempting to use unauthorized materials, information or study aids in any academic exercise.
- Fabrication: Intentional and unauthorized falsification or invention of any information or citation in an academic exercise.
- Facilitation academic dishonesty: Intentionally or knowingly helping or attempting to help another commit an act of academic dishonesty.
- Plagiarism: Intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise.

Disabilities or other special needs: Any student who requires special accommodations for success in this course is invited to share these concerns or request with the professor as soon as possible

Appendix A

Critical Assignment #1

Research Article Critiques

This exercise is designed to provide the student an opportunity to locate, read, assimilate, and evaluate research articles or reports relevant to their professional interests and goals. The general format of a research article or report should include an introduction, methodology, results, discussion and abstract/summary. The research study should be selected from a “scholarly” journal or other comparable source such as Research in Education (RIE).

Your evaluation will consist of a written report using the guide questions that follow. Your evaluation should be written in narrative (paragraph) format rather than individual responses to the guide questions. Responses should both answer the guide questions and provide information from the study related to the guide questions. **Do not treat these as simple Yes/No questions; provide a brief description in your answer.** Questions for which responses are not possible should be so noted. The report should begin with the author, title, and bibliographic information for the article/report being evaluated. The written report should be typed and double spaced with your name and number of the analysis at the top.

INTRODUCTION

Problem:

- Is there a statement of the problem?
- Is background information on the problem presented?
- Is the problem researchable (can it be investigated through data collection and analysis)?
- Is the educational significance of the problem discussed?
- Does the problem stated indicate the variables of interest and the relationship(s) between those variables?

Review of Related Literature:

- Is there a review of related literature?
- Is the literature review comprehensive?
- Are all references cited relative to the problem under study?
- Is the review well organized – does it flow logically from more general information to information that is more specific to the problem under study?
- Does the literature review conclude with a brief summary?

Hypotheses/Research Questions:

- Are specific hypotheses or research questions stated?
- Does each hypothesis or research question regard an expected relationship or difference?
- Do the hypotheses or research questions help define the variables under study?
- Is each hypothesis testable or research question answerable?

METHODOLOGY

Subjects:

- Are the size and major characteristics of the population under study adequately described?
- If a sample was selected, is the method of sample selection clearly described?
- Are the size and major characteristics of the sample adequately described?
- Does the sample selection technique appear likely to produce a representative, unbiased sample?

Instruments:

- Is each instrument described in terms of purpose and content?
- Is a rationale given for the selection of the instruments (measurements) used?
- Are the instruments appropriate for measuring the intended variables?
- Are the reliability and validity of the instruments described or discussed?

Design & Procedure:

- What type(s) of study design was (were) used in the study – e.g. historical, experimental, correlational, etc.
- What evidence is there that this (these) type(s) of design were used in the study?
- Is the study design appropriate for testing stated hypotheses or answering stated research questions?
- Are procedures described in sufficient detail to permit replication of the study?
- Was a pilot study conducted? If so, did the pilot study results affect the subsequent procedures used in the study?
- Are control procedures described?

RESULTS

- Are the results clearly presented and easy to understand?
- Was every hypothesis tested or research question answered?
- If tables or figures were included, were they well organized and informative?
- Are the data presented in the tables or figures discussed in the accompanying text?
- Are the tests of significance appropriate for the hypotheses/research questions and design of the study?
- Are probability levels clearly stated for each test of significance?
- Is there a summary of the salient results emerging from the study?
- Can the results found be generalized to a particular group?

DISCUSSION

- Is each result discussed in terms of the original hypothesis or research question to which it relates?
- Is each result discussed in terms of previous results obtained by other researchers?
- Are generalizations consistent with the results?
- Are theoretical or practical implications of results discussed?
- Are recommendations for future action made?
- Are recommendations for future research made?
- Do all recommendations appear reasonable in light of the purpose of the study and results obtained?

Journals to consider for this assignment (not exhaustive)

American Journal of Psychology	Journal of Educational Measurement
American Education Research Journal	Journal of Educational Psychology
Anthropology and Education Quarterly	Journal of Educational Research
Counselor Education and Supervision	Journal of Educational Statistics
Educational Action Research	Journal of Experimental Education
Education Administration Quarterly	Journal of Extension
Educational and Psychological Measurement	Journal of Higher Education
Education Evaluation and Policy Analysis	Journal of Mental Health Counseling
Educational Measurement, Issues, and Practices	Journal of Research in Childhood Education
Educational Researcher	Journal of Research and Development in Education
Gifted Child Quarterly	Journal of Research in Science Teaching
Harvard Educational Review	Professional School Counseling
International Journal of Behavioral Development	Psychological Bulletin
International Journal of Educational Research	Psychology in the Schools
International Journal of Social Education	Reading Research Quarterly
International Review of Education	Research in Education
Journal for Specialists in Group Work	Research in Higher Education
Journal of Adolescent Research	Research in the Teaching of English
Journal of Applied Research in Higher Education	Research Quarterly for Exercise and Sport
Journal of College and University Student Housing	Review of Educational Research
Journal of Counseling and Development	Sociology of Education
Journal of Cross-Cultural Psychology	Theory into Practice

Appendix B

Critical Assignment #2

Thesis/Dissertation Critique

This exercise is designed to provide the student an opportunity to locate, read, assimilate, and evaluate a thesis or dissertation relevant to their professional interests and goals. The general format of a thesis or dissertation should include an abstract, introduction, literature review, methodology, results, and conclusion. Your evaluation will consist of a written report using the guide questions that follow. Your evaluation should be written in narrative (paragraph) format rather than individual responses to the guide questions. Responses should both answer the guide questions and provide information from the study related to the guide questions. **Do not treat these as simple Yes/No questions; provide a brief description in your answer.** Questions for which responses are not possible should be so noted. The written report should be typed and double spaced with your name and number of the analysis at the top.

Title of Dissertation:

Author:

University:

Date of Publication:

ABSTRACT

- Is a summary of the problem provided?
- Are the number and types of participants and instruments described?
- Is the research design and/or procedures identified or described?
- Are the major results and conclusions stated?

INTRODUCTION

Introduction

- Is the kind of research used in the study described? (i.e., Quantitative, Qualitative, or Mixed-Method) **Please identify.**
- Is the study type or approach described? (i.e., Descriptive, Experimental, Correlational, Causal-Comparative, Survey, Ethnographic, Historical, Action Research, etc.) **Please identify.**

Formal Statement of the Problem

- Is there a summary and formal Statement of the Problem? (**Must be stated in the critique**)

Purpose of the Study

- Is there a statement of the Purpose of the Study?
- Does the Purpose of the Study indicate the variables of interest and the specific relationship between those variables being investigated?

Hypotheses/Research Questions

- Are specific hypotheses to be tested or research questions to be answered listed or

specifically stated? (**Must be stated in the critique**)

- Does each hypothesis or research question state an expected relationship or difference between two or more variables?
- If necessary, are variables directly or operationally defined?
- Is each hypothesis testable/answerable?

Significance of the Study

- Is a description provided of the importance of this study and the contribution to knowledge that this study will make? (i.e., Who will use this information and in what way? How will this information impact the profession?)

Other

- Is there a Definition of Terms section? (i.e., terms that are unusual and/or not widely understood)
- Is the Importance of the Study stated? (i.e., statement that explains the potential value of the study to the field of education)
- Are Limitations of the Study stated? (i.e., factors beyond the researchers control)
- Are Delimitations of the Study stated? (i.e., factors the researcher chose to control in the scope of the study such as, sample size, geographic region, response formats, timeframe, etc.)

REVIEW OF LITERATURE

Introduction

- Does the first paragraph(s) introduce the purpose of the review and the order in which the topics will be presented?

Body

- Are the references relevant to the problem being investigated?
- Are most sources primary? (i.e., are there only a few or no secondary sources?)
- Are the specific variables addressed in the problem and purpose of the study thoroughly discussed in the review?
- Have the references been critiqued and integrated fully into the manuscript?
- Does the information logically flow in such a way that the references least related to the problem are discussed first and the most related references are discussed last?
- Is the review well organized?
- Does the review provide the reader with sufficient information to comprehend the problem or topic?

Summary

- Is there a summary of the review that presents the major findings relevant to the problem that directs this study?

METHODOLOGY

Participants

- Is there a description of the population represented by the sample? (e.g., size and major characteristics of the community in which the sample resides)
- If a sample was selected, is the method of selecting the sample clearly described?
- Are the size and major characteristics of the sample described?

- Does the sample size meet the suggested guidelines for minimum sample size appropriate for the research design?

Instruments

- Is rationale provided for the selection of instruments (or measurements) used in the study?
- Is each instrument described in terms of its purpose and context?
- Are the instruments appropriate for measuring the intended variables?
- If the instruments were developed specifically for the study, are the procedures involved in instrument development and validation described?
- Is evidence presented that indicates that each instrument is appropriate for the sample under study?
- Are indicators of reliability and validity reported for each instrument? (**Must be stated in critique**)

Research Design

- Is there a description of the design chosen for the study that justifies its appropriateness? (**Must be stated in critique**)
- Is the design appropriate for testing the hypotheses of the study?

Procedures

- Are the procedures described in sufficient detail to allow them to be replicated?
- Are the instruments and procedures applied correctly?
- If a pilot study was conducted, are its execution and results described as well as its impact on the current study?
- Are the control procedures described for confounding variables, or did the researcher discuss any confounding variables that he or she was unable to control?

Ethical Considerations

- If necessary, does the researcher indicate that approval was obtained from appropriate review boards? (e.g., IRB)
- Were the rights of research participants protected throughout the study? (e.g., confidentiality, freedom from coercion, etc.)

RESULTS

Data Analysis

- Are appropriate descriptive statistics presented?
- Was the probability level at which the results of the significance test were evaluated specified?
- Was every hypothesis tested?
- Are the tests of statistical significance described appropriate given the hypotheses and design of the study? (**Null Hypotheses and Alpha level for testing hypotheses, if applicable, must be stated in critique**)
- Are the results of the statistical analysis clearly described?
- Are procedures for analyzing data provided in sufficient detail so that study can be replicated?

Tables & Figures

- Are the tables and figures (if any) well organized and easy to understand?
- Are the data in each table and figure described or referenced in the text

CONCLUSIONS*Discussion*

- Is each result discussed in terms of the original hypothesis or topic to which it relates?
- Is each result discussed in terms of its agreement or disagreement with previous results obtained in other studies?

Limitations of the Study

- Are the possible effects of uncontrolled variables on the results discussed?
- Is there an identification of any other aspect of the study that may have negatively affected the results or generalizability of the results which the researcher had no control?

Implications and Recommendations

- Are theoretical and practical implications of the findings discussed?
- Are recommendations for future action made?

Appendix C

Critical Assignment #3a.

Research Proposal (abridged)

Students choosing this Critical Assignment will develop an abridged three chapter Research Proposal (Chapter 1 – Introduction, Chapter 2 – Literature Review, and Chapter 3 – Methodology). **I have uploaded information on writing a three chapter proposal on our course Blackboard site – feel free to use that information as you wish. Please note that you will not have to be as detailed in this assignment as that document outlines as this paper will be an “abridged” version of what you might write in an actual thesis or Masters Paper proposal.**

The topic/subject of this paper is open to the student’s choosing, but students are encouraged to select a topic that is relevant to their professional interests and goals. A practical purpose of this assignment is for each student to delve deeper into scholarly research in his/her personal area of interest, so this assignment is most worthwhile if students choose topics they intend to explore beyond the context of this one course. It is also important to keep in mind that the major purpose of this assignment, with respect to assessment and evaluation of learning in the course, is for students to demonstrate their understanding of educational research in an authentic way.

The requirement for style, format, and content are intended to emphasize students’ understanding of course topics. Because of this, a fairly specific type of literature review is required. The final paper should emphasize evaluation and synthesis of the literature reviewed. The paper must be 10-15 pages long (inclusive of cover page, abstract, and Reference page), be double-spaced and use 12 Times New Roman font. APA (6th edition) formatting is required. The paper will include a minimum of 10 sources of which 8 must be from peer reviewed primary research (i.e., journal articles like those listed on page 11 of this document or theses/dissertations). These sources may include any scholarly work such as journal articles, position papers, a discipline-specific handbook of research, etc. However, since this is a *research* course, and a primary purpose of this assignment is for each student to examine, in depth, original *research* in his/her area of professional interest, the majority of cited sources must be peer reviewed, primary research articles (i.e., the researchers collected, analyzed, and reported on their own data). Sources should be current (i.e., published within the past 15 years) except in the case of seminal studies or theoretical work that continues to influence contemporary thought.

In addition, Internet sources may be included. However, because the authenticity/accuracy of information obtained via the Internet is difficult to verify, *online sources will not count toward the ten (10) source minimum* – except in the case of peer-reviewed online journals. Students are encouraged to consult with their major advisor, or other faculty in the area of interest, to identify appropriate journals and other sources to include in their literature review. All manuscripts must be submitted electronically, via e-mail as they will be submitted to Safe-Assign by the instructor upon receipt.

Your Research Proposal will include the following:

Cover Page

Abstract

Chapter 1 – Introduction (1-2 pages)

This chapter is to include the following sections - Statement of the Problem, Research Questions or Hypothesis, and Significance of the Study.

Chapter 2 – Literature Review (5-7 pages)

This chapter is to provide the reader with a comprehensive review of the literature related to the problem under investigation. The Literature Review may contain theories and models relevant to the problem, a historical overview of the problem, current trends related to the problem, and significant research data published about the problem.

Chapter 3 – Methodology (1-2 pages)

Include in this chapter a description of the population and sample of your proposed study and how they will be selected, the instrumentation to be used for the study, data collection and analysis methods to be used, conclude with a short summary.

References – (1-2 pages)

Develop your Reference list using proper APA 6th edition formatting.

Research Proposal (abridged)

Scoring Rubric

Criterion		Does Not Meet Requirements	<div style="text-align: center;"> <-----> </div>				Meets Requirements
Length and Style	Number of Pages	0 0 points	1-4 1 point	5-7 2 points	8-10 3 points	10-15 4 points	
	Proper APA Format	No attempt to meet guidelines 0 points	10 errors or more 1 point	6-9 errors 2 points	4-5 errors 3 points	3 errors or less 4 points	
	Grammar & Sentence Structure	10 errors or more 0 points	7-9 errors 1 point	5-6 errors 2 points	3-4 errors 3 points	3 errors or less 4 points	
	Number of scholarly, peer reviewed, primary research	No attempt to meet guidelines 0 points	1-5 current citations with 1-3 from primary research 1 point	6-7 current citations with 4-5 from primary research 2- points	8-9 current citations with 6-7 from primary research 3 points	At least 10 current citations with a minimum of 8 from primary research 4 points	

		Does Not Meet Requirements	Fair	Meets Requirements
Component Score	Chapter 1 Introduction	0 points	2 points	4 points
	Chapter 2 Literature Review	0 points	2 points	4 points
	Chapter 3 Methodology	0 points	2 points	4 points
	Reference List	0 points	2 points	4 points
	Cover Page & Abstract	0 points	2 points	4 points
	Power Point	0 points	2 points	4 points

Appendix D

Critical Assignment #3b

Action Research Plan

Students choosing this Critical Assignment will design a 5 part Action Research Plan. The topic/subject of the Action Research Plan is open to the student's choosing, but students are encouraged to select a topic that is relevant to their professional interests and goals. A practical purpose of this assignment is for each student to delve deeper into scholarly research in his/her personal area of interest, so this assignment is most worthwhile if students design an Action Research Plan that they might follow through on later in their studies. As an example, you might use the Action Research Plan you develop for this class as part of your practicum (EDUC 794). It is also important to keep in mind that the major purpose of this assignment, with respect to assessment and evaluation of learning in the course, is for students to demonstrate their understanding of Action Research in an authentic way.

The requirement for style, format, and content are intended to emphasize students' understanding of course topics. The final paper must be 10-15 pages long (inclusive of cover page, abstract, and Reference page), be double-spaced and use 12 Times New Roman font. APA (6th edition) formatting is required. The paper will include a minimum of 10 sources of which 8 must be from peer reviewed primary research (i.e., journal articles like those listed on page 11 of this document or theses/dissertations). These sources may include any scholarly work such as journal articles, position papers, a discipline-specific handbook of research, etc. However, since this is a *research* course, and a primary purpose of this assignment is for each student to examine, in depth, original *research* in his/her area of professional interest, the majority of cited sources must be peer reviewed, primary research articles (i.e., the researchers collected, analyzed, and reported on their own data). Sources should be current (i.e., published within the past 15 years) except in the case of seminal studies or theoretical work that continues to influence contemporary thought.

In addition, Internet sources may be included. However, because the authenticity/accuracy of information obtained via the Internet is difficult to verify, *online sources will not count toward the ten (10) source minimum* – except in the case of peer-reviewed online journals. Students are encouraged to consult with their major advisor, or other faculty in the area of interest, to identify appropriate journals and other sources to include in their literature review. All manuscripts must be submitted electronically, via e-mail as they will be submitted to SafeAssign by the instructor upon receipt.

Your Action Research Plan will include the following:

Cover Page

Abstract

Part 1 – Introduction (1-2 pages)

Like Chapter 1 of a Research Proposal this part of your plan is to include an introduction to your study as well as the following sections - Statement of the Problem, Research Questions or Hypothesis, and Significance of the Study.

Part 2 – Literature Review (5-6 pages)

Here, you will provide the reader with a comprehensive review of the literature related to the problem under investigation. The Literature Review may contain theories and models relevant to the problem, a historical overview of the problem, current trends related to the problem, and significant research data published about the problem.

Part 3 – Methodology (1-2 pages)

Include in this chapter a description of the population and sample of your proposed study and how they will be selected, the instrumentation to be used for the study, data collection and analysis methods to be used, conclude with a short summary.

Part 4 - References (1-2 pages)

Develop your Reference list using proper APA 6th edition formatting.

Part 5 – SMART Goals (1 page)

Conclude your Action Research Plan by detailing 2-3 SMART (**S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**imely) Goals you can use in implementing your proposed study.

Specific -

Well defined. Clear to anyone that has a basic knowledge of the project

Measurable

What exactly will be measured so that you know the extent to which your goal has been reached?

Achievable

Identify the perceived barriers to your Action Research Plan and how you will overcome them.

Relevant

How is this Action Research Plan relevant to you as an educational professional?

Timely

What is your timeframe for completing the Action Research project you are proposing?

Action Research Plan Scoring Rubric

Criterion		Does Not Meet Requirements	←----->				Meets Requirements
Length and Style	Number of Pages	0 0 points	1-4 1 point	5-7 2 points	8-10 3 points	10-15 4 points	
	Proper APA Format	No attempt to meet guidelines 0 points	10 errors or more 1 point	6-9 errors 2 points	4-5 errors 3 points	3 errors or less 4 points	
	Grammar & Sentence Structure	10 errors or more 0 points	7-9 errors 1 point	5-6 errors 2 points	3-4 errors 3 points	3 errors or less 4 points	
	Number of scholarly, peer reviewed, primary research	No attempt to meet guidelines 0 points	1-5 current citations with 1-3 from primary research 1 point	6-7 current citations with 4-5 from primary research 2- points	8-9 current citations with 6-7 from primary research 3 points	At least 10 current citations with a minimum of 8 from primary research 4 points	

		Does Not Meet Requirements	Fair	Meets Requirements
Component Score	Chapter 1 Introduction	0 points	2 points	4 points
	Chapter 2 Literature Review	0 points	2 points	4 points
	Chapter 3 Methodology	0 points	2 points	4 points
	Reference List	0 points	2 points	3 points
	SMART Goals	0 points	2 points	3 points
	Cover Page & Abstract	0 points	2 points	3 points
	Power Point	0 points	2 points	3 points

Action Research (example)

Hughes (1999, as reported in Creswell, 2008) was a fourth-grade teacher in a small country-suburban K-8 district school. She begins by describing her class and the problem of not having in-class support for high-ability students in her room. The gifted students were pulled out of her classroom daily during math instruction to work on special science projects. In view of this, she wondered whether she was meeting the needs of these high-ability students, and she initiated an action research study. Here were the steps she took:

1. She first reviewed the published literature on her issue (e.g., pull-out programs, inclusion of gifted in the classroom, and meeting the needs of the gifted).
2. In addition, she interviewed colleagues from her school and neighboring elementary schools for their perspectives.
3. From the literature review and her interviews, she identified four themes – school reform, enrichment versus acceleration, pull-out versus in-class, and new educational strategies – and developed a flowchart listing the factors that surfaced for each theme, such as: school reform movement ideas, equity for all – every child receives what he or she needs to grow and learn, and not every child receives the exact same instruction, excellence for all where every child is challenged to the limit of his or her abilities.
4. Based on this information she refined her original research questions and collected both quantitative and qualitative data through parent telephone interviews, student surveys, teacher conferences with students about their work portfolios, and classroom observations by six different teachers for each question. She placed this information in a chart so that her team members could help her analyze the data.
5. She enlisted six other elementary teachers from her building to create a team to help with the process of data analysis.
6. The team first skimmed the data to obtain a clear picture of it and then sorted all of the data under four themes about how to incorporate gifted children into the class (in-class flexible groups, differentiated instruction, enrichment, and acceleration).
7. She turned these themes into four major activities for the teacher to try in her classroom.
8. Next, she put the findings into an *action plan*, resulting in specific activities (e.g., continue to self-evaluate and find ways to incorporate differentiated instruction and assessment in the classroom).
9. She shared her finding with others to “make a difference on a larger scale”. This included sharing her study with other fourth-grade teachers, her principal, and a district committee.
10. The study ended with Hughes reflecting on future questions that she needed answered, such as, “Which is better, pull-out programs, in-class programs, or a combination?”

These 10 steps illustrate a good practical action research study in which the teacher collaborates to study a local problem, develops as a professional, uses a systematic approach to inquiry (e.g., gathering and analyzing data), and implements a plan of action. (pp. 601-602)

Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson

Hughes, L. (1999). Action research and practical inquiry: How can I meet the needs of the high-ability students within my regular educational classroom? *Journal for the Education of the Gifted*, 22, 282-297.

Additional Information on Action Research

What is Action Research?

Action Research is a process in which participants examine their own educational practice systematically and carefully using the techniques of research. It is based on the following assumptions:

- teachers and principals work best on problems they have identified for themselves;
- teachers and principals become more effective when encouraged to examine and assess their own work and then consider ways of working differently;
- teachers and principals help each other by working collaboratively;
- working with colleagues helps teachers and principals in their professional development.

Teacher Researchers:

- develop research questions based on their own curiosity about teaching and learning in their classrooms;
- examine their underlying assumptions about teaching and learning;
- systematically collect data from and with their students;
- share and discuss their data and research methodology with fellow teacher researchers;
- analyze and interpret their data with the support of their colleagues;
- write about their research;
- share their findings with students, colleagues, and members of the educational community;
- discuss with colleagues the relationships among practice, theory, and research;
- assume responsibility for their own professional growth

Use these prompts as a guide or starting point in developing your Action Research question:

- I would like to improve...
- I am perplexed by...
- Some people are unhappy about...
- I am really curious about...
- I want to learn more about...
- An idea I would like to try out in my class is...
- Something I think would really make a difference is...
- Something I'd like to change is...
- Right now, some areas I am particularly interested in are...

Some guidelines for developing your Action Research question & study:

- The question cannot be one answered with a simple “yes” or “no”.
- The question must be of a “high-level” which will get at explanations, reasons, relationships. “How does ___?”, “What happens when...?”
- The research question itself should be short, concise & free of educational jargon.
- The study should be something you are passionate about – something that is meaningful, useful, interesting, and relevant to you and the work you do.
- The study should offer enough tension to move you out of your comfort zone and stretch you professionally, but it also must be something that is manageable/do-able.

Techniques for gathering data for your Action Research study:

- *Interviews* with students, parents, teachers.
- *Checklists* of skills, behaviors, abilities, movement, procedures, interactions, resources, etc.
- *Portfolios* of a range of work from students of different abilities around a particular topic.
- *Individual files* of students’ work (tapes, art work, projects, reports) of students opinions/attitudes, etc
- *Field notes/observation records* – informational notes written by the teacher.
- *Questionnaires* of attitudes, opinions, preferences, etc.
- *Videotapes* of classrooms, lessons, groups, demonstrations, etc.
- *Case-Study* a comprehensive study of a student or a group of students.

Information retrieved from: <http://oldweb.madison.k12.wi.us/sod/car/carisandisnot.html>