Columbus State University
College of Education
Department of Counseling, Educational Leadership, and Professional Studies
M.Ed. Degree

EDUF 6116
COURSE SYLLABUS

COE Mission: “To achieve excellence by guiding individuals as they become professionals”

College of Education Mission Statement

The mission of the College of Education is congruent with and complements that of Columbus State University. The College of Education has adopted the guiding principle, Creating Opportunities for Excellence, to support its mission . . . to achieve excellence by guiding individuals as they develop the proficiency, expertise, and leadership consistent with their professional roles as teachers, counselors, and leaders. By creating opportunities for excellence, the College of Education prepares highly qualified teachers, counselors, and leaders who promote high levels of learning for all P-12 students by demonstrating excellence in teaching, scholarship, and professionalism. Teachers, counselors, and leaders continually acquire, integrate, refine, and model these qualities as they develop proficiency, expertise, and leadership. Ultimately, the professional educator believes in the transforming role of education in human lives and strives to improve the learning of all students. The College of Education also prepares highly qualified professionals in exercise science and community counseling. COE faculty guide individuals in this developmental process.

The visual model represents the key features of the Conceptual Framework for the programs in teacher education, educational leadership, and school counseling. The circle represents the continual process of acquiring, integrating, refining, and modeling excellence in teaching, scholarship, and professionalism. The arrows represent the interdependence of these qualities. The result of our efforts to achieve excellence in teaching, scholarship, and professionalism will be improved student learning at the P-12 level and the university level.

Teaching, scholarship, and professionalism encompass the highest standards represented in the ten (10) principles outlined by the Interstate New Teacher Assessment and Support Consortium (INTASC) and the five (5) core assumptions of accomplished teaching of the National Board of Professional Teaching Standards (NBPTS). Counselors in education and community are responsible for achieving the standard of excellence as described by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). See individual websites for detailed description of standards.
## Course Information

**Course:** EDUF 6116, Educational Research Methods  
**Focus:** Data driven decision making to improve student achievement  
**Semester:** (3-0-3) hours credit  
**Time:** 4:30-7:15. We will use the 2 hours and 45 minutes each meeting  
**Class:** Tuesday, August 21, 2007 - December 4, 2007  
**Instructor:** Tom Hackett, Associate Professor  
**Office:** Jordon Hall 120  
**Phone:** (706) 565-7818  
**e-mail:** hackett_paul@colstate.edu  
**Location:** Jordon Hall 209  
**Teaching Schedule:** Monday 5:00-7:15  
**Office Hours:** M-Th 1:30 -4:30 PM  
**Office of COE Graduate Studies:** Dr. Tom Hackett, COE Graduate Coordinator  
Mrs. Patty Jamieson, Department Secretary  
Jordan Hall 103  
706-568-2222  
FAX 706 568-5088

### Prerequisite
Acceptance into the M.Ed. Graduate Program

### Office Hours of Departmental Staff:
Monday – Friday, 8:00 a.m. – 5:00 p.m.  
Jordan Hall 103

### I. Course Description

Course Goals/Objectives:

This course is designed to help teachers improve student achievement with the use of data. The overall goal of this course is to provide the student with the opportunity to acquire the skills, knowledge, and strategies necessary to perform action research for student improvement. Master students will become better consumers of research as well as creators of knowledge by critiquing research that pertains to their own action research proposal. Students in this course will study major methods of inquiry in contemporary educational research. These methods of inquiry include, but are not limited to, experimental, historical, ethnographic, causal-comparative, survey, and correlational. The understanding of article content and methods of critiquing will be emphasized. By the end of the semester student will be able to perform in the following ways. (NPBTC #s 3, 4; COE# 2: NPBTC #3: INTASC #s 8, 9; ISLLC #4: CACREP #’s 1, 2, 3, 6, 8).

1. Demonstrate effective use of library and its resources as part of the research process.
2. Demonstrate basic skills for retrieval of articles using the ERIC system.
3. Develop working knowledge of refereed research journals in area of interest.
4. Identify and describe the sections and subsections of a research report.
5. Describe the role of educational research in student academic improvement.
6. Define methods of research commonly used in educational research.
7. Identify research as either quantitative or qualitative.
8. Describe steps to a systematic research study.
9. Describe concepts of reliability and validity.
10. Define the independent variables, dependent variables, and extraneous variables
11. Identify the different research designs used in educational research.
12. Demonstrate knowledge of the types and purposes of measuring instruments.
13. Identify the criteria for selection of measurement instruments.
14. Identify and describe the common graphical methods used for presenting data.
15. Calculate basic statistical operations related to the educational research process.
16. Understand the issue of statistical significance testing.
17. Identify appropriate statistical procedures and tests to use for different hypotheses.
18. Demonstrate writing skill using the American Psychological Association style format. (5th edition)
19. Develop reflection skills and knowledge for making data driven decisions.
20. Write an applied research proposal.
II. Course Requirements:

Textbooks:  
Title: Educational Research: Competencies for Analysis and Applications (8th edition)  
Author: Gay, Mills & Airasian  
Publisher: Prentice Hall  
ISBN: 0131185349

Not Required  
Title: Statistics for People Who (Think They) Hate Statistics  
Author: Neil J. Salkind  
Publisher: Sage  

HIGHLY RECOMMENDED  
Title: Publication Manual of the American Psychological Association (5th edition)  
Author: American Psychological Association  
www.apastyle.org

All assignments must be written according to APA style. NOTE: 10 points will be deducted from assignments that do not follow APA style (5th edition). Please read the sections on referencing and plagiarism.

III. Grading and Assessments:  
The final grade for the course will be based on the following:

- Written Article Critique: 10%  
- Oral Critiques: 5%  
- Power Point Presentation: 15%  
- Methodology Presentation: 15%  
- Mid-term: 10%  
- Final: 15%  
- Research Proposal: 30%

The following grading scale will be used:

- A: 100%-90%  
- B: 89%-80%  
- C: 79%-70%

Late assignments will result in a loss of 10 points

VI. Evaluation Procedures:  
Article Critiques  
Each week a group of students will be responsible for presenting a research article in their area of interest. Developing the ability to discuss and critique articles will encourage individual scholarly development. The one written critique of a research article may be turned in at any time during the 14 week term. Critique guidelines will be provided. The written critique is worth 10 points; oral critiques are 5 points each. Pay close attention to the data evaluation techniques. You may need to use additional sources to interpret the statistics. Referered journals are required for articles used when critiquing. When presenting orally please provide article to class 1 week before your presentation.

Methodology Presentation  
Students will present orally one research method. You may work independently or in a small group. A written outline will be given to the professor. Students are encouraged to be creative, yet thorough, in the presentation of the methodology. You should address the following questions regarding your research method.

- When is the method used? How is it used and what types of questions will it answer? What type of data collection is used? What type data analysis is most appropriate? How do you insure reliability and validity with this method? Keep in mind the concepts of internal and external validity and explain how they may or may not pertain to the method you are describing.

- Give examples of some research using this method. State the pros and cons regarding the use of your methodology. These questions are designed to help you get started. This presentation may be 30-45 minutes.
Research Proposal
The action research proposal will allow you to demonstrate your understanding of APA formatting, research design, data collection, and analysis as it pertains to data driven educational decisions. The paper is to be written in 12pt. Font (Times New Roman). A minimum of 12 pages will be needed to complete your paper. Plagiarism (including copying work from another student, present or former) is strictly prohibited. The paper will contain (See APA Manual page 10-27) the following sections.

1. Introduction
   a. Background
   b. Statement of the problem
   c. Review of Literature
   c. Hypothesis/Null Hypothesis

2. Method
   a. Participants
   b. Materials / Apparatus (Address Reliability and Validity issues)
   c. Procedure

3. Timeline and Budget
   a. Detailed Timeline
   b. Detailed Budget

4. References

5. Appendix
   a. Informed Consent Letter (On your school’s letterhead stationary)
   b. Examples of Questionnaires, surveys, or data sheets that you will be using.
   c. Completed Human Subject’s (IRB) form

Formal Presentation of Research
A formal presentation of your research proposal will be due November 27 and December 4, 2006. You may use overheads or power point. The format will be consistent with presentations prepared for a professional meeting. Presentation slides will include, but are not limited to (a) Name and Affiliation, (b) Title, (c) Statement of the Problem or Purpose, (d) Review or Seminal articles, (e) Hypothesis, (f) Participants, (g) Procedures, (h) How you plan to analyze data, (i) Time Schedule (j), Budget, (k) Significance. You will be allowed a maximum of 15 minutes to present your research.

Exam
The final/midterm exam will be designed to test your knowledge of material discussed in class, text readings, and any additional materials provided.

Attendance Policy:
This is a 7 week class. You are expected to attend all class meetings. If you miss class for any reason, it is your responsibility to complete missed assignments and to be prepared for the next class meeting. Anyone missing more than two (3) classes will be given a grade of WF for lack of attendance. Arriving to class late or leaving early will count as an absence.

V. Research-based Sources:
Students are required to reference sources in all oral and written presentations. Refereed journals are required for critiquing.

VI. Multicultural Education:
Students are encouraged to recognize the diversity of populations participating in the action research proposal as designed for assessment of students/programs and schools.

VII. Instructional Practices:
This course will include lecture, discussion, oral presentations, group assignments, and homework assignments. Students will be responsible for reading handouts assigned in class. * These readings will be separate from the text and are to be read before the next class meeting.
VIII. **Field-based Experiences:**
Educational/applied research proposals will be designed during this semester. Collection and analysis of data may be collected by the student for future assignments.

IX. **Computer Usage:**
Computers will be used for retrieving research articles, information off the web, and will be used for computation of statistics. Those having access to computers with Microsoft Word will input the analysis package for statistical computations of t-tests, correlations, ANOVAs, ANCOVAs, as well as other descriptive techniques. A power point presentation will be required.

**Calendar:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Professor Responsibility</th>
<th>Student Responsibility</th>
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<tbody>
<tr>
<td>August 20, 2007</td>
<td>Introductions</td>
<td>Read Entire Text at own pace</td>
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<td>Student information sheet</td>
<td>APA Manual pages 12-27</td>
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<td></td>
<td>Syllabus</td>
<td>Sign up for critiquing days</td>
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<tr>
<td></td>
<td>Form groups for Methodology presentations</td>
<td>Sign up for Research Methodology</td>
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<td>Select dates for Oral Critiques</td>
<td>Introduction to Educational Research</td>
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<td>Examples of Completed Proposals</td>
<td>Chapter 1</td>
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<td>August 27</td>
<td>Library in-service</td>
<td><strong>Meet in Library 3rd Floor</strong></td>
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<td>Parts of a research article</td>
<td>Reflect on administrative, counseling, or teaching to identify area of concern and develop a research question. Practice critiquing</td>
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<td>Critiquing an article/Manuscripts</td>
<td>Read Chapter 22</td>
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<tr>
<td>September 3</td>
<td>Labor Day</td>
<td><strong>No Class</strong></td>
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<td>September 10</td>
<td>Research Methods</td>
<td>Historical Research Method</td>
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<td>Finding focus</td>
<td>Selecting a Topic Chapter 2</td>
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<td>Explain how to identify problem for research/ Write Problem and plan</td>
<td>Article Critique</td>
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<tr>
<td>September 17</td>
<td>Research Methods/ Ethics</td>
<td>Ethnographic Research Method</td>
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<td>Introduction with Literature Review</td>
<td>Chapter 3</td>
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<td>Research Institutional Review Board</td>
<td>Article Critique</td>
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<td>CSU has Human Subjects Review Committee</td>
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<td>September 24</td>
<td>Research Methods</td>
<td>Case Study Research Method</td>
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<td>Sampling</td>
<td>Chapter 4</td>
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<td>Article Critiques</td>
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<td>October 8</td>
<td>Research Methods</td>
<td>Survey Research Method</td>
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<td>Measurement Scales</td>
<td>Chapter 6</td>
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<td>Article Critique</td>
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<td>October 15</td>
<td>Reliability and Validity of Instruments</td>
<td>Selecting Measuring Instruments</td>
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<td>Chapter 5</td>
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<td>Article Critique</td>
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<td>October 22</td>
<td>Research Methods</td>
<td>Program Evaluation Method</td>
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<td></td>
<td>Threats to Validity</td>
<td>Read Experimental Research</td>
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<td></td>
<td>Things to Ponder</td>
<td>Chapter 9</td>
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<td>Things to Ponder Activity</td>
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<td>Article Critique</td>
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<td>Date</td>
<td>Topic</td>
<td>Notes</td>
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<td>October 29</td>
<td>Mid-Term/Take Home</td>
<td>No Class</td>
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<tr>
<td>November 5</td>
<td>Research Methods</td>
<td>Narrative Research Method</td>
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<td></td>
<td>Descriptive Statistics</td>
<td>Descriptive Statistics Chapter 11</td>
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<td>Central Tendency, Normal Curve, Variability</td>
<td>Article Critique</td>
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<td>Mid-Term Due (Late Papers:10pts. deducted after November 5)</td>
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<td>November 12</td>
<td>Research Methods</td>
<td>Arts Based Method</td>
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<td></td>
<td>Inferential Statistics</td>
<td>Inferential Statistics Chapter 12</td>
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<td>Null Hypothesis, probability, errors</td>
<td>Article Critiques</td>
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<td>t-test, ANOVA Chi Square</td>
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<tr>
<td>November 19</td>
<td>Inferential Statistics continued</td>
<td>Action Research Method</td>
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<td></td>
<td>Review for final exam</td>
<td>Interpretation of Results Chapter 13</td>
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<td>Type I and II Errors, hypothesis, reliability, validity, Internal and external validity, alpha levels, inferential stats, descriptive, correlations.</td>
<td>Article Critique</td>
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<tr>
<td>November 26</td>
<td>Evaluate Presentations</td>
<td>Causal-Comparative Research Method</td>
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<td>Preparation and Evaluation of research report Chapters 21 and 22</td>
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<td>Article Critique</td>
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<td></td>
<td>Power Point Presentations Approximately 15 minutes each</td>
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<tr>
<td>December 3</td>
<td>Evaluate Presentations</td>
<td>Power Point Presentations Approximately 15 minutes each</td>
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<tr>
<td>December 10</td>
<td>Final/ In class. Will cover research methods and statistics</td>
<td>Take final exam. Hand in all due work 10pts. deducted for each late assignment. An additional 10pts. will be deducted for proposals not following APA style.</td>
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<td>Last Class</td>
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- The syllabus may change to accommodate the needs of the class.

Technology Integration: (Refer to ISTE standards for administrators (NETSA))

Attendance Policy: Attendance is mandatory. Any student missing more than 9 hours of class will be dropped and given a WF as a class grade. Late arrival and leaving class early will count as an absence. Regular attendance at class or laboratory is a student obligation. Students are expected to account to individual instructors for absences and, at the discretion of the instructors, to make up all work missed because of absence. Students absent from a previously announced quiz or test may be given a zero on the quiz or test. To be permitted to take a final examination at a time other than the date and time published on the Web under the Class Schedules page, students must have permission of the instructor and the dean of the college offering the course.

Part X: Other Information

ADA Accommodation Notice: If you have a documented disability as described by the Rehabilitation Act of 1973 (P.L. 933-112 Section 504) and Americans with Disabilities Act (ADA) and would like to request academic and/or physical accommodations please contact Joy Norman at the Office of Disability Services in the Center for Academic Support and Student Retention, Tucker Hall (706) 568-2330, as soon as possible. Course requirements will not be waived but reasonable accommodations may be provided as appropriate.
**Academic Dishonesty Policy:** No form of academic dishonesty will be tolerated. Academic dishonesty includes, but is not limited to, activities such as cheating and plagiarism. Any work turned in for individual credit must be entirely the work of the student submitting the work unless the instructor specifically provides other directions for group work. No collaboration of any type is allowed on quizzes or exams. With regard to homework or other graded assignments, you may get help, but may not copy from each other. Copying work, cheating, or plagiarism form the basis for disciplinary action. The penalty for academic dishonesty in this course a failing grade (F) for the course. Specific information regarding academic misconduct is available in the Student Handbook at [http://sa.colstate.edu/handbook/handbook.pdf](http://sa.colstate.edu/handbook/handbook.pdf)

**Important:**
*To assist students with writing scholarship, you may be required to have work reviewed through the program, *turn it in.*"
Methodology_____________________________________________________
Group members___________________________________________________
Points possible (15)_____________________________________________

<table>
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<tr>
<th>Outstanding</th>
<th>Competent</th>
<th>Needs Improvement</th>
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<tbody>
<tr>
<td>15 points</td>
<td>10 points</td>
<td>5 points</td>
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</table>

You should address the following 10 items regarding your research method.

1. When is the method used?
2. How is it used and what types of questions will it answer? (2pts)
3. What type of data collection is used?
4. What type data analysis is most appropriate and how is it analyzed? (2pts.)
5. How do you insure reliability and validity with this method?
6. Keep in mind the concepts of internal and external validity and explain how the two concepts may or may not pertain to the method you are describing. (2pts)
7. Give examples of some research using this method (not the example in the book).
8. State pros and cons.
9. Did the group cover the topic well enough for the class to thoroughly understand the methodology?
10. Did the presenters show mastery of the methodology? (2pts)
Group Members for Presentations

Historical Research Method
1. _____________________________
2. _____________________________
3. _____________________________

Ethnographic Research Method
1. _____________________________
2. _____________________________
3. _____________________________

Case Study Research Method
1. _____________________________
2. _____________________________
3. _____________________________

Survey Research Method
1. _____________________________
2. _____________________________
3. _____________________________

Program Evaluation
1. _____________________________
2. _____________________________
3. _____________________________

Narrative Research Method
1. _____________________________
2. _____________________________
3. _____________________________
Arts-Based Research Method
1. _____________________________
2. _____________________________
3. _____________________________

Action Research Method
1. _____________________________
2. _____________________________
3. _____________________________

Causal Comparative Research Method
1. _____________________________
2. _____________________________
3. _____________________________
CRITIQUING AN ARTICLE

Use APA format to reference your research article (5th edition). Articles must be obtained from a peer-reviewed journal. You must critique an article that pertains to your proposal topic.

The following list of questions may be used as a basis for evaluating a research article. This is not a set model but an outline to help evaluate published research. Your written critique is worth 10 points and must be in typed 12pt. Font (Times New Roman).

1. **What is the problem?**
   a. Is it significant?
   b. Is it properly delimited?
   c. Is it clearly described or implied?
   d. Are assumptions and limitations recognized?
   e. What is the independent variable?
   f. What is the dependent variable?
   g. Are the independent and dependent variables stated in the article title?

2. **What is/are the hypothesis/hypotheses?**
   a. Are hypotheses made explicit?
   b. Are hypotheses clear?
   c. Does the study have practical or theoretical value?
   d. Does the hypothesis lend itself to empirical testing?
   e. Can data be obtained?

3. **What are the methods or procedure?**
   a. Is the method appropriate to the hypothesis? Explain why.
   b. If the method is not appropriate to the hypothesis explain what might have been a better approach, and why.
   c. Do procedures follow an orderly, logical sequence? Explain.
   d. Is there evidence of review of previous studies to indicate context of this study in related body of knowledge?
   e. Are research procedures described in detail to permit verification or replication?

4. **What information is provided about the participants?**
   a. How many subjects participated in the study? Did the study use publicly accessible data?
   b. Are the participants studied a representative case sample?
   c. What evidence is given about sampling techniques?
   d. Are there sufficient numbers of participants for observation?
   e. Was approval to conduct the study obtained? From whom?
   f. Did participants sign an informed consent?
5. **What source of data is identified?**
   a. Are data-gathering devices appropriate? Could other instruments be used?
   c. Are sufficient amounts and appropriate kinds of data obtained?
   d. How is the data recorded?

6. **How are the data analyzed?**
   a. What logical consequences were deduced from the hypothesis?
   b. Was an appropriate significance test applied to the findings?
   c. What was the nature of the analysis? (verbal description, statistical manipulation, tables of frequency counts, etc.)

7. **What important conclusions are presented?**
   a. Were the conclusions sound according to the data?
   b. Did the conclusions conform to good logic; were they internally consistent?
   c. What are the positive aspects of this research?
   d. What are the negative aspects of this research?

8. **How do you evaluate the written report?**
   a. Is the style clear, objective, and readable?
   b. Is the article long enough to adequately cover the topic?
   c. Are the tables and/or figures helpful in clarifying the information?

9. **Could the research have been improved to control for effects of extraneous variables?**
   a. Were there threats to external validity?
   b. Were there threats to internal validity?
   c. Was research bias evident?

10. **Using your professional expertise, reflect on how this research article may be used in your field.**
Oral Article Critiques

September 10
1. ________________________________  
2. ________________________________

September 17
1. ________________________________  
2. ________________________________

September 24
1. ________________________________  
2. ________________________________

October 8
1. ________________________________  
2. ________________________________

October 15
1. ________________________________  
2. ________________________________

October 22
1. ________________________________  
2. ________________________________

October 29
1. ________________________________  
2. ________________________________

November 5
1. ________________________________  
2. ________________________________

November 12
1. ________________________________  
2. ________________________________

November 19
1. ________________________________  
2. ________________________________

November 26
1. ________________________________  
2. ________________________________