Course Description: Design and analysis of experimental, quasi-experimental, single-N, and qualitative research, with an emphasis on applied counseling and educational settings. This course is also designed to help you understand how to review literature and write a preliminary thesis or dissertation prospectus.

Instructor: Dr. Rachel Crook Lyon
Office Hours: W, 10:00 -11:00 am or by appt
340Q MCKB
(801) 422-4375
Rachel_crooklyon@byu.edu


Supplementary Readings: The instructor will provide copies of supplemental readings.

Goals and Objectives:  (1) The first objective of this class is to help you develop the ability to critically read and evaluate research that is relevant to your professional work.  (2) The second objective of the course is to help you gain the understanding, skills, and confidence you need so that you can conduct research of your own.  (3) A third objective of the course is to help you write and prepare to defend your thesis or dissertation prospectus.  Through a combination of readings, class presentations and discussions, and assignments, I hope to help you acquire some of the essential knowledge and skills about scientific writing, research methodology, and statistics that are needed to critically evaluate and do high quality research.  I will also devote some time in offering suggestions and guidelines for writing an effective prospectus.  You will have the opportunity to consult with me about questions and concerns you have about your topic, methods, and prospectus manuscript.  I greatly enjoy doing research and hope that through participation in this course you will come to enjoy it too.

Learning Activities and Requirements

Quizzes: During the first 10 – 15 minutes of each class, a short quiz will be administered on the assigned readings.

Research Circles: You are required to participate in a small cooperative group to discuss your research ideas, provide feedback to other group members, and report on your progress.  You will meet with your group each week during class.

Observations: To help prepare you for your own thesis/dissertation prospectus meeting, you will attend and observe a thesis/dissertation proposal meeting once during the semester—I will provide a list of scheduled meetings.  At the class period following the proposal meeting, please be prepared to share some of your observations and reactions with the rest of the class.  There are also other options to fulfill this requirement.

Article Critique Presentations: As part of the requirements of this class, you will be asked to help informally critique a number of research studies we present in class.  You are also required to assist with a methodological critique of a published study selected by your small group.  You will provide the instructor with the reference of your article so that the rest of the class may review prior to your presentation. Your small group will present a summary and critique of the study in class on the date indicated in the class schedule.

Prospectus: Please complete the 1st draft of your prospectus (introduction, lit review, method, statistical analyses
or other sections as discussed with the instructor) by April 2, 2010 and turn in a copy to your advisor. This will give you time to have he or she read your prospectus and give you feedback to help you refine it. You are also required to submit the “final” draft of your prospectus, electronically, by April 21, 2010 at 5 p.m.

Scholarly Log: Please keep a weekly log which documents the hours you spend working on your research questions, conducting literature search/review, reading articles (as well as your textbook/course readings) and writing this semester. You should devote at least 30 hours during the semester to exploring various research areas and reading the literature in preparation for writing your prospectus. If you complete 30 hours of scholarly work during this time you will receive full points for this assignment.

Final Presentation: The final exam will be a presentation or poster based on your prospectus. This will be a 10-minute formal presentation in which you include the following elements: brief summary of the existing literature in your topic area, the purpose of the study, research questions, method, measures, procedure, and statistical analyses. Please see the attached oral presentation grading scale at the end of the syllabus.

Class Attendance and Participation

Class participation consists of attendance and participation in article critique discussions, research circles, and other class discussions and activities. It is expected that you will attend all class and supervision sessions; avoid arriving late or leaving class early. Since valid reasons exist for missing class on occasion, please notify the instructor in advance of any absence. If you must miss class or a substantial portion of class, you will turn in a 2-page minimum reflection paper on the readings for that day at or before the next class period.

| Quizzes | = 50 points |
| Research Circles | = 100 points 550 – 511 A |
| Observation | = 25 points 510 – 485 A- |
| Article Critique | = 75 points 484 – 465 B+ |
| Prospectus | = 100 points 464 – 445 B |
| Scholarly Log | = 100 points 444 – 415 B- |
| Final Presentation | = 100 points 414 – 400 C+ |
| Total | = 550 points |

Course Outline (subject to change)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>1/06</td>
<td>Syllabus &amp; Class Requirements; Introduction to Research</td>
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<tr>
<td>1/20</td>
<td>Quantitative, Qualitative, and Mixed Research Mixed Method and Mixed Model Research; Conducting the Literature Review</td>
<td>J &amp; C: 2, Schlosser &amp; Gelso, 2001 (class critique)</td>
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<tr>
<td>1/27</td>
<td>Grad Student Panel Developing Research Questions</td>
<td>J &amp; C: 3, Feldman &amp; Klein, 2003 (class critique)</td>
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<tr>
<td>2/03</td>
<td>Ethical Issues in Research Critically Evaluating Research</td>
<td>J &amp; C: 4, 5 Small group article critique</td>
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QUANTITATIVE AND QUALITATIVE RESEARCH PARADIGMS

2/10 Non-experimental & Mixed Methods Quantitative Research J & C: 13, 16
Small group article critique

2/17 Experimental Research J & C: 11, 12, Ridgway, 2003;
Quasi-Experimental and Single-Case Designs Galassi & Gersh, 1993
Writing the Introduction and Literature Review Chapter

2/24 Qualitative & Historical Research J & C: 14, 15, Cutliffe, 2005
Prospectus Defenses and IRB Applications

METHODOLOGICAL ISSUES

3/03 Measurement and Assessment Writing the Methods Chapter J & C: 6, 7 Cokley, 2007
Savin-Williams, 2001

3/10 Methods of Data Collection Writing the Research Report J & C: 8, 20

3/17 Sampling J & C: 9; Halpern, 1989

3/24 Descriptive and Inferential Statistics J & C: 17, 18

3/31 Data Analysis in Qualitative Research J & C: 19, Hill et al 2005,
Ponterotto, 2005

4/07 Validity of Research Results J & C: 10, Smith et al., 2002

4/21 FINAL PRESENTATIONS 11:00 am -2:00 pm

Honor Code: STUDENTS AND INSTRUCTORS WILL BE EXPECTED TO ABIDE BY AND SUPPORT THE BYU HONOR CODE.

Preventing Sexual Harassment:
Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. BYU’s policy against sexual harassment extends not only to employees of the university but to students as well. If you encounter unlawful sexual harassment or gender based discrimination, please talk to your professor; contact the Equal Employment Office at 378-5895 or 367-5689 (24-hours); or contact the Honor Code Office at 378-2847.

Students With Disabilities:
Brigham Young University and I personally, are committed to providing a working and learning atmosphere which reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact me at the beginning of the semester. You may also want to contact the Services for Students with Disabilities Office (378-2767). Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities. Services are coordinated with the student and instructor by the SSD Office. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Equal Employment Office at 378-5895, D-282 ASB.
Article Critique Presentation

Checklist for Evaluating a Quantitative Study

The following checklist can be used to help in evaluating the quality of a quantitative research study although some of the questions apply only to experimental studies. If you are evaluating a nonexperimental study, you should disregard questions that focus on experimental studies.

**Introduction**
1. Is the research topic area clearly stated in the first paragraph?
2. Is (are) the research problem(s) clearly stated?
3. Does the literature review accurately convey the past research?
4. Does the literature review suggest and lead to the statement of the research purpose and/or research question(s)?
5. Is the purpose of the research clearly stated?
6. Is each research hypothesis clearly stated, and does it clearly state the expected relationship between the independent and dependent variables?
7. Is the theory from which the hypotheses came clearly explained?

**Method**
8. Are the demographics of the participants accurately described, and are they appropriate to this study?
9. Was an appropriate method of sampling used, given the purpose of the study?
10. Were enough participants included in the study to test the hypotheses?
11. Are the research instruments that were used reliable and valid for the participants used in the study?
12. For experimental research, do the manipulations of the independent variable represent the constructs (e.g., failure, poverty, self-esteem) being investigated or does the study have construct validity?
13. Do the measurements of the dependent variable represent the phenomenon (e.g., learning, aggression, stress) of interest?
14. For experimental research, were the participants randomly assigned to conditions?
15. Are there elements in the procedure that might have biased the results?
16. Did the researchers take appropriate actions to control for biases?
17. Were the participants treated ethically?

**Results**
18. Are appropriate statistical tests and calculations of effect sizes used to analyze the data?
19. Are the results presented clearly?
20. Is any part of the data being ignored, such as some participants being dropped?
21. Can the results be generalized to the populations and settings the researcher desires?

**Discussion**
22. Do the researchers clearly explain the results of the study?
23. Have the findings of the study been discussed in relation to the theoretical framework with which they began?
24. Have alternative explanations for the study results been examined?
25. Do the results conflict with prior research? If they do, has an explanation been provided for the conflicting data?
26. Have any limitations of the study been discussed?
27. Are future directions for research suggested?
Checklist for Evaluating a Qualitative Study

The following checklist can be used to help in evaluating the quality of a qualitative research study.

Introduction
1. Is the research topic specified at the outset of the article?
2. Is (have) the research problem(s) (been) clearly identified?
3. Is there a sufficient review of the relevant research literature?
4. Is the purpose of the research clearly stated?
5. Are specific research questions identified and stated clearly?

Method
6. Have the characteristics of the participants, the research site, and the context been accurately described?
7. Are the participants appropriate for the purpose of the study?
8. Is the number of participants large enough?
9. Were adequate data collected to address the research question?
10. Were triangulation and other validity-enhancing strategies used to help produce trustworthy evidence?
11. Were the participants treated ethically?

Results
12. Are the findings presented clearly?
13. Are any potentially important data ignored by the researcher(s)?
14. Is sufficient evidence provided to convince you of the trustworthiness of the findings?

Discussion
15. Are the results discussed in relation to other research in this area?
16. Are the limitations of the study discussed?
17. Have the researchers examined alternative explanations for their findings?
18. Have suggestions for future research been provided?
2009 Scholarship Workshop Writing Log - 1

Decide when you will research each day and record your decision in "Scheduled Research Time." Each day, record the actual reading and writing time as well as the minutes of scholarly activity. YOU can decide what counts as "research time" based on what you want to accomplish by participating in the program. We suggest you count “research time” as any time spent sitting in front of your computer (or with pen in hand) working with the text of papers you plan to utilize for your thesis/dissertation. This may include brainstorming, jotting down ideas, outlining, or even just thinking about your research.

<table>
<thead>
<tr>
<th>Week Beginning on</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wed.</th>
<th>Thursday</th>
<th>Friday</th>
<th>Sat. (Opt.)</th>
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<tr>
<td>Scheduled Research Time (e.g. 8-9 a.m.)</td>
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<td>Actual Research Time (e.g. 8:15-8:45)</td>
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<td>Minutes of Research (e.g. 30 min.)</td>
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During this time period, I met with the other members of my team to review research _____ time(s).
Record the date(s) you met with team members: (1) ______________ (2) ______________

During this time period: (Check where appropriate)
_____ I isolated and studied my key sentences (by myself, outside of the team meeting).
_____ I reviewed my posted thesis statement as I wrote. _____ I read my rough draft out loud to myself (_____ to another person)
_____ I finished a complete draft. _____ I had another person review a complete draft. _____ I submitted a paper for publication.
Oral Presentation Grading Scale

<table>
<thead>
<tr>
<th>Speaker _________________________</th>
<th>Topic: _________________________</th>
<th>Grade _____</th>
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<tbody>
<tr>
<td><strong>Delivery</strong></td>
<td><strong>Superior</strong></td>
<td><strong>Adequate</strong></td>
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<tr>
<td>Dress and Grooming</td>
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<tr>
<td>Voice (volume, pitch, pace, clarity)</td>
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<tr>
<td>Poise, naturalness, confidence</td>
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<td>Eye Contact</td>
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<tr>
<td>Knowledge of subject</td>
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<tr>
<td>Adaptation of subject to audience</td>
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<tr>
<td><strong>Organization</strong></td>
<td><strong>Superior</strong></td>
<td><strong>Adequate</strong></td>
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<tr>
<td>Interesting opening</td>
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<tr>
<td>Clear purpose</td>
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<tr>
<td>Clear plan of development</td>
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<tr>
<td>Limited number of points</td>
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<tr>
<td>Appropriate emphasis on each point</td>
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<tr>
<td>Adequate examples, details, or reasons</td>
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<tr>
<td>Smooth transitions</td>
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<td>Effective ending (clear, sense of closure)</td>
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<tr>
<td><strong>Resources</strong></td>
<td><strong>Superior</strong></td>
<td><strong>Adequate</strong></td>
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<tr>
<td>Report adapted well to setting</td>
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<tr>
<td>A/V aids augment spoken message</td>
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<td>A/V aids clearly audible/visible</td>
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<td>A/V aids simple</td>
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<tr>
<td>A/V aids handled smoothly</td>
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<tr>
<td>Time used well (5 points off for every minute speech goes over allotted time)</td>
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Comments: