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# C&I 520.01: Educational Research

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# CURRICULUM AND INSTRUCTION 520 EDUCATIONAL RESEARCH Spring 2007

Instructor: Trent Atkins, Ph.D. Class Meets: via the internet

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Office Location: Education 302

Office Hours: Office Hours: Monday 2 - 4 p.m. and by appointment

(feel free to call or email during these times)

#### Course Purpose:

The purpose of this course is to assist students in acquiring the skills and knowledge required to be competent consumers and producers of educational research.

Course Objectives: Participants in this course will be able to:

- 1. Explain why research is essential to educational practice
- 2. Explain the research process with relevant terminology
- 3. Conduct a systematic literature review
- 4. Distinguish and categorize different types of research
- 5. Explain validity and reliability
- 6. Explain different sampling techniques
- 7. Explain samples and populations
- 8. Explain "ethical research."
- 9. Explain both qualitative and quantitative data analysis procedures
- 10. Conduct basic statistical procedures
- 11. Discuss the unique issues of working with vulnerable and diverse populations
- 12. Develop a research proposal consisting of all essential components
- 13. Write papers and cite references using APA 5<sup>th</sup> ed.

#### Instructional Methods:

Effective teaching methods will be modeled throughout the semester and will encompass a variety of formats including power-point facilitated on-line discussions, small and large group problem-solving activities and student-led presentations and discussions. In addition, case studies will be utilized regularly for student reflection and inquiry-based learning. The use of email correspondence with the instructor is strongly encouraged as a means of individualizing instruction. Computer-mediated instruction in the form of email communication among students and internet research will also be encouraged. Please note: It is imperative that you attend to the Frequently Asked Questions (FAQ) section of this course. When someone asks me a question for which an answer is useful to all students, I will post the response in the FAQ section.

The following website: <a href="http://www.prenhall.com/gay">http://www.prenhall.com/gay</a> is an excellent resource to study for exams and for conducting research projects. I encourage you to visit this website and familiarize yourself with it within the first week of the semester.

#### **Disability Statement:**

If you have a disability for which accommodations are needed for you to perform to your highest potential in this course, arrange a meeting with me in the first week of the semester. During this meeting we will discuss what accommodations you need and will receive in this course. Please be sure to contact me within the first week of the semester.

## **Course Expectations:**

All participants will be expected to comply with the academic honesty policies, as defined in the University of Montana <u>Student Conduct Code</u>. Any violation will result in a letter to the Dean recommending immediate expulsion, and a grade of "F."

It is expected that participants will take part in each class activity and will have read the assigned material prior to each session. Quizzes and exams will be based on assigned readings.

#### **Required Texts:**

Gay, L.R. Mills G.E., & Airasian, P. (2005). Educational research: Competencies for analysis and application (8<sup>th</sup> ed.). New Jersey: Pearson Education Inc.

Other readings may be assigned during the semester.

It is recommended that you have access to an APA manual (5<sup>th</sup> ed.).

#### **Evaluation Procedures:**

#### **INDIVIDUAL ASSIGNMENTS:**

Literature Review: 50 points
 Quizzes (5 @ 10 points each): 50 points

3. Online Activity/Discussion Engagement: 225 points (15 points per week)\*

Issues Presentation:
 Proposal Presentation:
 Research Proposal:
 Final Exam:
 50 points
 50 points
 50 points

POSSIBLE POINTS = 525 points

#### Literature Review (50 points, Due WEEK 7)

Conduct a literature review of the educational topic of your choice. The final product should be a clear and concise table (I will provide an example) and include at least 10 research-based resources. Be sure that you choose a topic that has a research base so you can fulfill these requirements. Include a reference page and citations in APA format (separate from the table). Use your text (Chapter 2) as a guide for this assignment.

#### Quizzes (50 points, ongoing)

Quizzes will be given throughout the semester. These quizzes will cover the assigned reading material. The quizzes will consist of ten questions worth one point each. You will only have one chance to take each quiz, however, you will have another opportunity to get the answer correct. That is, the Final Exam will consist of the same questions that made up the five quizzes.

#### Online Activity/Discussion Engagement (300 points, ongoing)

Most weeks of the semester you will be given an activity to complete. The purpose of these activities is to ensure that you are engaging the material from the course. When needed, basic guidelines will be given so you will know how you will be graded. For example, if you are asked to discuss something, you will be given an approximate number of words that you need write to get full credit. You should have these activities complete by Monday at 7:00 p.m. each week.

# Issues Presentation (50 points, WEEKS 5 and 6)

Each student will present information regarding a particular issue pertinent to educational research. The presentation should be no longer than 10 slides. The presentation should provide (a) an overview of the issue, (b) existing current research, and (c) future implications.

<sup>\*</sup>We may not have an activity every week so there could be fewer overall points.

Complete a research proposal that includes a corrected literature review table. In total, the proposal should be approximately 15 pages and include all steps of a research project including a proposed (or assumed) *Findings* section and relevant *Discussion* section. Evaluation of APA style usage will be stringent. More specific guidelines for this assignment will be discussed throughout the semester.

## Proposal Seminar (50 points, WEEKS 14 and 15)

Each student will present information regarding his or her research proposal. The presentation should be no longer than ten slides. The presentation should consist of (a) explanation of the method, (b) explanation of proposed procedure (c) the strengths and weakness of the methodology, and (d) presumed findings. You should prepare this assignment before you finish your proposal. Use it as a way to guide writing your paper. You can adapt it after you receive feedback on your paper

#### Final Exam (50 points, FINALS WEEK)

The Final Exam will be given during finals week and will consist of the same questions from the five quizzes. Therefore, it will consist of 50 questions worth one point each. It is expected that the struggles (i.e. possible low scores) from the quizzes will be offset with demonstrated proficiency and a high score on the Final Exam.

## **Grading Scale:**

Letter Grade Percentage
A= 93%-100%
B= 85%-92%
C= 77%-84%
D= 76% and below

Activities & Assignments/Readings		
Date	Class Activities	Assignments and Readings for Following Week 4
Week 1 1.22	Activity to show that each student understands and is able to use the Blackboard interface.	Read Chapters #1, 2
Week 2 1.29	#1 Guest Presenter: Information from Education Librarian, University of Montana. #2 Activity: How do we know things? #3 PandD The ongoing debate: Qualitative Vs. Quantitative Research	Read Chapter #3
Week 3 2.5	#1 PandD Preparing a Research Plan #2 Activity: What Issue are you interested in? #3 Quiz #1	Read Chapter #22
Week 4 2.12	#1 Issues Presentations: Ten students should have their presentations posted #2 Activity: What are the essential components of research report?	Read Chapter #4 and 5
Week 5 2.19 President's Day (Activities not due until Wednesday)	#1 Issues Presentations: The remaining ten students should have their presentation posted #2 PandD Variables, Validity and Reliability #3 Activity: What construct and/or variables are you interested in studying and how your going to measure or describe them?	Read #14 and #15
Week 6 2.26	#1 Quiz #2 #2 PandD An Example of Year-Long Qualitative Cross-case Analysis (Atkins, 2003) #3 Activity: Design a research process for a qualitative study	Read Chpt. #18
Week 7 3.5	#1 Wrap-up Qualitative Research #2 PandD Survey Research #3 Activity: Design a brief survey	Read Chapter #7
Week 8 3.12	#1 PandD Correlational Research #2 Activity: The Dangers of Correlation	Read Chapters #8 and 9
Week 9 3.19	#1 QUIZ#3 #2 PandD Causal Comparative and Experimental Research #3 Activity: Design an Experimental Study	Read Chapter #21
Week 10 3.26	NO CLASS	
Week 11 4.2	#1 Activity: What are the pros and cons to both qualitative and quantitative research? #2 Discussion of Research Proposals and Peer Evaluation	Read Chapters #11 and 12
Week 12 4.9	#1 QUIZ#4 #2 Activity: The Basics of Statistics RESEARCH PROPOSAL DUE NOW and THROUGH THE END OF THE SEMESTER	Visit and review this site: <a href="http://www.umt.edu/research/">http://www.umt.edu/research/</a>
Week 13 4.16	#1 PandD Research Ethics and How it All Fits Together #2 Activity: Do you know ethical standards?	Prepare for presentations
Week 14 4.23	#1 QUIZ#5 #2 Activity: Do you know Educational Research? #3 Proposal Seminar and Discussion	Prepare presentations
Week 15 4.30	#1 Proposal Seminar and Discussion #2 Activity: Do you know Educational Research?	Prepare for Final Exam
Final – 5.7	Final Exam	