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# EDU 520.50: Educational Research

Trent L. Atkins *University of Montana, Missoula*, trent.atkins@umontana.edu

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# Teaching and Learning 520 EDUCATIONAL RESEARCH Spring 2021

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

Contact Information: Email: trent.atkins@umontana.edu

Office Location: Education 101 Office Hours: 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.

<u>Course Objectives</u>: Participants in this course will be able to:

- 1. Articulate the relationship between educational research and practice.
- 2. Understand the theoretical and practical differences between quantitative and qualitative traditions.
- 3. Explain the different steps in both qualitative and quantitative research processes, using and understanding relevant terminology.
- 4. Identify a research topic of interest to you, and conduct a systematic literature review on your topic.
- 5. Identify distinguishing characteristics of various types of research designs within qualitative and quantitative traditions.
- 6. Describe validity and reliability.
- 7. Explain different sampling techniques, samples and populations.
- 8. Understand and articulate the parameters and implications of "ethical" research, and the procedures that educational researchers must follow when working with human participants.
- 9. Discuss issues unique to working with vulnerable and diverse populations.
- 10. Name features of both qualitative and quantitative data analysis procedures.
- 11. Become familiar with basic statistical procedures.
- 12. Apply new knowledge and develop scholarship by designing a research study consisting of a problem statement, literature review, and methods sections, using APA (6th ed.) style.

#### Conceptual Framework for all Courses Taught through the PJW College of Education

The Professional Education Unit has adopted a conceptual framework that places central value on learning as a collaborative endeavor. The faculty in the Professional Education Unit believes that an educational orientation is insufficient and outmoded if it is based on isolated content, is teacher-dominated, and directed primarily toward passive students learning alone. Thus, it is the Unit's intent that education candidates at The University of Montana-Missoula will experience a cohesive learning community during their own preparation, with the goal that they will be disposed and equipped to create communities of learners in their own future educational settings.

The faculty has identified three essential elements of learning communities which form organizing themes or strands that permeate all the programs and drive the candidate proficiency outcomes:

## Integration of Ideas

Members of a learning community look beyond the traditionally segmented curriculum and think creatively about the interrelationships among subject areas. They work with a variety of fields of study and search for unifying themes that cross disciplinary lines. There is an emphasis on explaining realities and dealing with actual problems in contextual learning situations.

# Cooperative Endeavors

In a learning community, knowing and learning are viewed as communal acts, and all members can learn from each other. There is a commitment to engage all learners cognitively and emotionally in acquiring and sharing knowledge that is personally meaningful. In the process, members create a culture that encourages personal responsibility and active commitment to the group and its learning goals.

# Respect for Diversity and Individual Worth

By definition, a learning community embraces diversity, requiring and valuing the input of all voices present. The ethics of care and mutual respect are viewed as essential for supportive learning environments that enhance each member's self-esteem and foster risk-taking, creative conflict, and excellence.

#### **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.

#### **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 and class activities.

#### Required Texts:

Gay, L.R., Mills, G.E., & Airasian, P. (2012). *Educational research: Competencies for analysis and application* (10th ed.). Upper Saddle River, New Jersey: Pearson.

A series of videos, articles and selected readings will also be assigned on a weekly basis.

It is recommended that you have access to an APA manual (6<sup>th</sup> ed.).

## **Evaluation Procedures:**

#### **INDIVIDUAL ASSIGNMENTS:**

1. Literature Review: 50 p	OIIII
2. Quizzes (5 @ 10 points each): 50 p	oints
3. Online Activity/Discussion Engagement: 100	points
4. Issues Presentation: 50 p	oints
5. Proposal Presentation: 50 p	oints
6. Research Proposal: 50 p	oints

POSSIBLE POINTS = 350 points

#### <u>Literature Review</u> (50 points, Due WEEK 8)

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.

# Online Activity/Discussion Engagement (100 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 completed by Monday at 7:00 p.m. each week.

<sup>\*</sup>involvement in weekly activities is mandatory.

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.

# Proposal Presentation (50 points, WEEK 14)

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.

# Research Proposal (50 points, WEEK 15)

Complete a research proposal that includes a corrected literature review table. In total, the proposal should be approximately 10 pages and include all steps of a research project including aproposed (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.

#### **Grading Scale:**

 Letter Grade
 Percentage

 A=
 93%-100%

 B=
 85%-92%

 C=
 77%-84%

 D=
 76% and below

	Activities & Assignments/Readings (Readings Based o	
Date	Class Activities	Readings Related to Activities
Week 1	Introductions	
1.14		
Week 2	#1 TOPIC: An Introduction to Research	Read Chapters #1, 2
1.21	#2 Activity: How do we know things?	
Week 3	#1 TOPIC Preparing a Research Report	Read Chapters #4 and #21
1.28	#2 Activity: What Issue are you interested in?	Read Chapters #4 and #21
1.20	#2 Activity. What issue are you interested in:	
Week 4	#1 Issues Presentations: Students should post	Read Chapter #3
2.4	presentations	read Chapter 113
2.4	#2 Activity: What are the essential components of	
	research report?	
	#3 Quiz #1	
Week 5	#1 TOPIC: Variables, Validity and Reliability	Read Chapter #6
2.11	#2 Activity: What construct and/or variables are	Read Chapter #0
2.11	you interested in studying and how are you going to	
	measure or describe them?	
Week 6	#1 Quiz #2	Read Chapters #14 and #18
2.18	#1 Quiz #2 #2 TOPIC: Qualitative Research	Read Chapters #14 and #16
2.10	#3 Activity: Design a research process for a	
	qualitative study	
Week 7		Dood Chantons #7% #9
2.25	#1 TOPIC: Survey Research and Correlational Research	Read Chapters #7& #8
2.25		
W 1 0	#2 Activity: Design a brief survey	
Week 8 3.4 (STUDENT BREAK)	LITERATURE REVIEW IS DUE	
Week 9	#1 TODIC: Embasing a Decemb Decemb	Dood Chanton #22
	#1 TOPIC: Evaluating a Research Report	Read Chapter #22
3.11	#2 Activity: What are the pros and cons to	
	both qualitative and quantitative research?	
	#3 Discussion of Research Proposals and Peer Evaluation	
W 1. 11		D 1 C1 4 //0 0 1 0
Week 11 3.18	#1 QUIZ#3	Read Chapters #9&10
3.16	#2 TOPIC: Causal Comparative and Experimental	
	Research	
W 1. 12	#3 Activity: Design an Experimental Study	D 1 Ch 4 #12 1 12
Week 12	#1 QUIZ#4	Read Chapters #12 and 13
3.25	#2 TOPIC: Statistics	
	#3 Activity: The Basics of Statistics	
Week 13	#1 TOPIC: Research Ethics and How it All Fits	Visit and review this site:
4.1		v isit and review this site:
7.1	Together #2 Activity: Do you know ethical standards?	http://www.umt.edu/research/
Wook 14	· · ·	mtp.//www.umt.cdu/reseaten/
Week 14 4.8	PROPOSAL PRESENTATIONS DUE	
7.0		
Week 15	#1 QUIZ #5	Proposal Presentations
4.15	#2 Proposal Seminar and Discussion	1 Toposai i Tosomanons
	#3 Activity: Do you know Educational Research?	
Week 16	PROPOSALS DUE	Proposal Presentations
4.22	#1 Proposal Seminar and Discussion	1 Toposai I Tesentations
T, 44	#2 Activity: Do you know Educational Research?	
FINALS WEEK	"2 Itenity. Do you know Educational Research:	
FINALS WEEK		