



THE UNIVERSITY OF TEXAS AT EL PASO

College of Education
Educational Psychology and Special Services

EDPC 5310: Applied Research Design for Educators

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 Office Hours: On campus Wednesday 2:00 – 4:30; online Monday 9:00 – 12:00; or by appt.
 Required Text: Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2014). *How to Design and Evaluate Research in Education* (9th ed.). New York: McGraw-Hill.
 Recommended Text: American Psychological Association (2010). *Publication Manual of the American Psychological Association* (6th ed.). Washington, D.C.: American Psychological Association.
 Required Supplemental Readings: Research articles to be assigned (TBA)

Course Overview

This course introduces students to research methods used in educational and community settings that serve diverse populations. Emphasis will be placed on understanding the nature of research, the research process, and various quantitative and qualitative research methodologies so that students can read, use and design research to address educational and community problems and program needs.

Course Objectives

Objective	CACREP Standard	TEXES School Counselor	Learning Activity	Outcome Measure
Goal: Section II F. 8. The goal is for students to develop skills in conducting and using research to inform evidence-based counseling practice.				
Objective 1. Understand the importance of research in advancing the counseling profession, including its use to inform evidence-based practice.	F 8a	Domain II: Competency 6.6 Domain III: Competency 10.4, 10.5	Classroom lectures, online tutorials, reading, group discussions	Research Project Parts 1 - 3
Objective 2. Identify and describe counseling-related educational problems	8 a	Domain II: Competency 6.6	Classroom lectures, reading, group discussions	Research Project Part 1

Objective 3. Formulate educational research questions	8a	Domain II: Competency 6.6. Domain III: 10.5	Classroom lectures, reading, group discussions, Research Project Part 1	Research Project Part 1
Objective 4. Understand the steps of planning and conducting a counseling-related research study	8a	Domain II: Competency 6.6, Domain III: 10.5	Classroom lectures and activities, online tutorials, reading, group discussions, Research Project Parts 1 - 3	Research Project Parts 1 - 3
Objective 5. Conduct a literature review in order to identify and review credible sources informing a counseling problem	8a	Domain II: Competency 6.6, Domain III: 10.5	Classroom lectures, reading, group discussions, Research Project Part 1	Research Project Part 1
Objective 6. Understand and identify the types and roles of variables, hypotheses, and sampling procedures in educational research	8a	Domain II: Competency 6.6, Domain III: 10.5	Classroom lectures, online tutorials, reading, group discussions, Research Project Part 1	Mid-term exam, Research Project Part 1
Objective 7. Understand qualitative, quantitative and mixed research methods and designs and when they are used	8 e, f	Domain II: Competency 6.6, Domain III: 10.5	Classroom lectures, online tutorials, reading, group discussions, Research Project Parts 1 - 3	Mid-term and final exams
Objective 8. Understand basic statistical methods used in counseling research	8 g	Domain II: Competency 6.6, Domain III: 10.5	Classroom lectures and activities, online tutorials, reading, group discussions	Mid-term exam
Objective 9. Analyze basic statistical data and results in counseling research	8 h	Domain II: Competency 6.6, Domain III: 10.5	Classroom lectures and activities, reading, group discussions, Statistics Worksheet	Research project, mid-term and final exams
Objective 10. Understand ethical issues and practices in conducting, interpreting, and reporting results of research in counseling	8 i	Domain III: Competency 10.5	Lectures, reading, CITI human subjects training, group discussions, Research Project Part 3	CITI training; Research Project Part 3

Goal: Section II F. 7 The goal is for students to understand and assess the reliability and validity of measurements used in educational research.				
11. Explain the importance of validity, reliability, and scales of measurement in reading and conducting educational research	7 f h	Domain II: Competency 7,3	Classroom lectures, reading, online tutorial, group discussions, Research Project Part 2	Mid-term exam, Research Project Part 2

Expectations

Because this is a graduate course of study leading to an advanced academic degree, I have high expectations for you. Likewise, you should have high expectations for me. Our behavior in the class reflects our professional attitudes about education as a profession. This class will be taught in a hybrid format, so these expectations include behavior both in class and online.

I expect the following of students:

- Time management: This class is time- and content-intensive. The standard figure for studying in graduate courses recommended by American universities is approximately three (3) hours for every credit hour taken. This means that for every hour we meet on campus, you should expect to devote up to 3 hours out of class to written assignments and preparing for class. For online weeks, you should expect to devote up to 12 hours on assignments and class preparation. You may not always need to devote this amount of time but you should be prepared to do so if necessary to be successful in this class.
- Regular attendance at on-campus classes. Much of our learning occurs in the interactive setting of the class. If someone is not here, it affects the learning of everyone in the class. If you must miss class due to professional reasons, please provide documentation ahead of time. If you know ahead of time that you must miss more than one class due to professional or personal reasons, you should plan to take the class in a subsequent semester. If you must miss class due to unexpected emergencies, please notify the instructor with documentation as soon as possible. It is the student's responsibility to communicate with the professor and provide appropriate documentation if you wish to request an excused absence.
- Careful preparation for class. Because our time together is limited, it is essential that you come to class prepared. This means that you should read and reflect on assigned materials before class in order to be thoroughly prepared to discuss them. Again, if someone is not prepared, it affects the learning of everyone in the class. Details on requirements are provided in the course timeline and course modules.
- Bring textbook and research articles to every class. In-class activities require having these available in order to actively participate; therefore they are a part of attendance and participation. *If you are unable to print or download assigned articles to a hand-held device, please notify the instructor in advance and I will make a copy available.*

- Active participation in face-to-face and online activities based on thorough preparation, thoughtful contributions, and respectful support of your colleagues' learning.
- Make regular use of the Blackboard site for this class as it will be our primary means of communication outside of class, and for learning when we are online. You should plan to check Blackboard several times weekly for announcements and Blackboard emails.
- On-time completion and submission of all assigned activities and assignments.
- Papers and quizzes will be submitted electronically through Blackboard before the due dates. Late papers will be penalized one letter grade for each day they are late, unless prior arrangements have been made with the instructor. Late practice quizzes will not receive credit unless prior arrangements have been made with the instructor. In order to make sure that you receive credit, it is strongly recommended that you submit papers and quizzes early through Blackboard in case it goes down or you lose power unexpectedly. In the unlikely event that Blackboard is down when you are submitting a paper, you should send it to me as an attachment via UTEP email. However, you are still required to submit it through Blackboard when it becomes available.

Students should expect the following of me:

- Careful and thorough planning and preparation in support of your learning for classes and online activities.
- Feedback on assignments will usually be returned to you within one week of due date, barring unforeseen circumstances.
- Timely out-of-class communication, which will usually consist of Blackboard email correspondence since it is the most secure and efficient method of communication. I will make every effort to respond to messages 2-4 times daily on Monday through Friday and within 24 hours on weekends. I will also be available for office hours and for personal and phone conferences by appointment. Use UTEP email only if Blackboard is down.
- Modeling effective teaching practices and professionalism.

Course Requirements

Attendance and Participation

I expect you to make every effort to attend all class meetings and participate actively in learning activities. Attendance and participation include the following: arriving to class on time, staying for the entire class, reading assigned chapters in the textbook and research articles before coming to class, bringing textbook and research articles to class, on-time completion of practice quizzes over assigned chapters (see additional information below), and actively participating in learning activities. Lack of any of these elements of attendance and participation without making prior arrangements will constitute an unexcused absence. I acknowledge that your obligation to this

class will be superimposed on family and professional responsibilities. However absence, lack of punctuality, or lack of preparation, does not excuse any of us from our obligations to our own learning and to the learning of others. Completion of this course constitutes partial fulfillment of the requirements for an advanced academic degree and professional certification/licensing. I expect that absence, late arrival, or early departure will be handled professionally. As a professional courtesy, the instructor should be contacted before class whenever possible.

Attendance, on-time submission of responses to research article questions, active participation, and completion of in-class activities will be credited 5 points per week that we are on campus. On-time submission of assigned practice quizzes and other assignments will be credited 5 points per week that we are online.

Introductory and Conclusion Assignments

See the Week 1 online course module for completing introductory assignments. These include a syllabus assignment, online discussion posts, and two questionnaires. You will also complete questionnaires at the end of the semester.

Practice Quizzes

For most chapters in the textbook, there will be one to three practice quizzes on Blackboard. You will not be graded based on your scores on these quizzes; however, on-time completion of the quizzes will earn your attendance/participation points for each online week. Some chapters have more than two practice quizzes; you are only required to complete two quizzes per chapter to earn the points. Practice quizzes for weeks when we meet on campus are optional, but it is strongly recommended that you complete them because they will help you prepare for class, check your understanding of important concepts, and review for the exams. You will see your scores on all of these quizzes in your Blackboard grade center but they are not part of your calculated grade; completion of practice quizzes counts toward your attendance/participation points for online weeks.

Written Assignments: Research Project (Parts 1, 2, and 3)

Because this course fulfills requirements leading to a professional degree in counseling, the written assignments are designed to give you authentic experience in planning major phases of reading and designing educational research. They walk you through important steps of designing a research study on a counseling problem. Each assignment is worth 40 points and will be graded using rubrics that spell out point values for each component of the assignment. In order to be as authentic as possible, you will have the option to complete these individually or in groups of up to four members, since research is nearly always, but not necessarily, a collaborative enterprise. Parts 1 and 2 can be revised based on my feedback to earn back points.

Exams

In addition to written assignments, there will be two open book online exams worth 50 points each. These exams are designed to assess your ability to understand and apply important research

concepts and to help you prepare for professional comprehensive and licensing exams. In addition to the exams, you will complete selected modules from the CITI IRB training for ethics in research and protection of human subjects. There is one brief quiz for each IRB module, for a total of 20 points. Performance on the IRB quizzes will be documented by submitting a screen capture of the modules completed, including the quiz scores and your name. These IRB quizzes may be retaken to improve your score, but the documentation for completion must be submitted by the due date. It is recommended, therefore, that you complete this training early so that you may retake the quizzes if you choose.

Research Article Discussions

An important goal of this class is developing skills in reading research articles. In order to facilitate this goal, part of our learning will involve in-class discussions about research articles. You will be assigned to groups of approximately four students to conduct these discussions in class. In order to ensure that everyone is prepared for the discussion, you will be required to post online responses to specific questions concerning each assigned research article. These will be due the evening before the in-class discussions take place. Specific instructions and due dates for the discussions will be provided. Online responses will count toward additional weekly attendance/participation points.

Learning Modules

For most of the chapters in the textbook, I have prepared learning modules to facilitate your learning. These modules include a summary of the most important topics in each chapter, offer examples of research concepts, and include YouTube videos to illustrate many of the important concepts. Although the modules do not include required assignments or quizzes, it is strongly recommended that you take advantage of these learning materials to help supplement your learning in the course. Please note that they do not replace reading the chapters which contain more detailed information required for the project and exams.

Following is a listing of the course requirements and point values:

Assignment	Points Possible
Introductory/conclusion assignments	30
Research Project Part 1	40
Research Project Part 2	40
Research Project Part 3	40
IRB training (documented with screen capture of module completion)	20
Exams (2 @ 50 points each)	100
Online posting of responses to article questions (3 wks @ 5 points each)	15
<u>Participation/attendance/practice quizzes (15 wks @ 5 points each)</u>	<u>75</u>
Total Points	360

Grading

Letter grades will be assigned using the following scale:

- A = 90% to 100%
- B = 80% to 89%
- C = 70% to 79%
- D = 60% to 69%
- F = 59% and below

IMPORTANT NOTE ABOUT GRADES: You will be able to see your grades in Blackboard. However, it is the responsibility of each student to monitor your own grades and bring any concerns to the attention of the instructor. Unfortunately there are occasional glitches in the grade center in Blackboard, but I can only correct them if I am made aware of them. It is also the responsibility of the student to contact the instructor if there are concerns about performance in the class. This must be done early enough in the semester so that a plan for improvement can be put into place. If you wait until the end of the semester, it is too late. Although there may be occasional opportunities during the semester for all students to earn extra credit points, no such opportunity will be offered to individual students at any time.

Students with Disabilities

The university is committed to the principle that in no aspect of its programs shall there be differences in the treatment of persons because of race, creed, national origin, age, sex, or disability, and that equal opportunity and access to facilities shall be available to all. If you require special accommodations, please provide documentation to the Center for Accommodations and Support Services (CASS).

Policy on cell phones, tablets, etc.

Please respect the instructor and your peers by turning off your cell phones and beepers upon entering our classroom, unless you have notified me at the beginning of class that you have a critical family or personal situation about which you must be notified. This should constitute only emergencies. Also, refrain from bringing anything to class that rings, buzzes, beeps, or otherwise makes a distracting noise. Text messaging or use of any other technology for anything other than note-taking or classroom learning activities (e.g. research article discussions) are also not permitted.

UTEP Policy on Academic Integrity

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another person's as ones' own. And, collusion involves collaborating with another person to commit any

academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

A. "Cheating" includes:

1. Copying from the test paper of another student, engaging in written, oral, or any other means of communication with another student during a test, or giving aid to or seeking aid from another student during a test;
2. Possession and/or use during a test of materials which aren't authorized by the person giving the test, such as class notes, books, or specifically designed "crib notes";
3. Using, obtaining, or attempting to obtain by any means the whole or any part of non-administered test, test key, homework solution, or computer program; using a test that has been administered in prior classes or semesters but which will be used again either in whole or in part without permission of the instructor; or accessing a test bank without instructor permission;
4. Collaborating with or seeking aid from another student for an assignment without authority;
5. Substituting for another person, or permitting another person to substitute for one's self, to take a test; and
6. Falsifying research data, laboratory reports, and or other records or academic work offered for credit;

B. "Plagiarism" means the appropriation, buying, receiving as a gift or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own academic work offered for credit, or using work in a paper or assignment for which the student had received credit in another course without direct permission of all involved instructors;

C. "Collusion" means the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on scholastic dishonesty.

Academic dishonesty is an assault upon the basic integrity and meaning of a University. Cheating, plagiarism, and collusion in dishonest activities are serious acts which erode the University's educational and research roles and cheapen the learning experience not only for the perpetrators, but also for the entire community. It is expected that UTEP students will understand and subscribe to the ideal of academic integrity and that they will be willing to bear individual responsibility for their work. Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

Tentative Course Schedule

Date	Topic	Reading assignments, tasks, and practice quizzes (check BB for specifics on due dates/times)	Graded Assignments/ Exams
Week 1: 8/28- 8/30 Online	Introduction to the Course Syllabus What is Educational Research? <ul style="list-style-type: none"> • What are the purposes of educational research? • What is the scientific method in education and psychology? • What is the nature of educational and psychological research in schools, classrooms, and communities? 	Obtain textbook Read syllabus Complete introductory tasks in Week 1 course module	Week 1 research tasks
Week 2: 8/31- 9/6 Meet on campus 9/6	Basics of Research, Part 1: Planning research and selecting a research problem Basics of Research, Part 2: Searching for research literature	Read FWH Ch. 1-2 Skim FWH Ch. 3 (specific pages indicated in Blackboard) Completion of optional practice quizzes recommended	
Week 3: 9/7 – 9/13 Online	Basics of Research, Part 3: Variables, Hypotheses, and Sampling <ul style="list-style-type: none"> • Independent and dependent variables • Operational definitions of psychological and educational variables • Forms of hypotheses: Hypotheses versus research questions • Populations and samples: Probability and non-probability sampling procedures 	Read FWH Ch. 5-6 Read handout on plagiarism Complete learning modules Complete practice quizzes on BB by Wednesday 9/13 at 11:59 PM	Begin working on Research Project Part 1
Week 4: 9/14 – 9/20 Meet on campus 9/20	Basics of Research, Parts 1-3: Review and application Research article discussion	Review FWH Ch. 1-2, 5-6 Read research article in preparation for in-class article discussion	

		Post answers to article questions by <u>Tuesday</u> , 9/19 at 11:59 PM	
Week 5: 9/21 – 9/27 Online	Basics of Research, Part 4: Measuring Variables in Educational Research <ul style="list-style-type: none"> • Validity and reliability of measures • Scales of measurement • Internal validity 	Skim FWH Ch. 7 Read FWH Ch. 8-9 Complete learning modules Complete practice quizzes on BB by Wednesday 9/27 at 11:59 PM	Research Project Part 1 due Wednesday 9/27 at 11:59 PM
Week 6: 9/28 – 10/4 Meet on campus 10/4	The Basics of Research, Part 4: Review and application	Review FWH 8-9	Begin working on Research Project Part 2
Week 7: 10/5 – 10/11 Online	The basics of research, Part 5: Statistical concepts for quantitative research <ul style="list-style-type: none"> • Descriptive statistics: Measures of central tendency and measures of variability – <i>Means and standard deviations</i> • Inferential statistics and hypothesis testing: <i>t-tests, ANOVA, chi-square</i> tests 	Read FWH Ch. 10-11 Complete learning modules Complete practice quizzes on BB by Wednesday 10/11 at 11:59 PM	Work on Research Project Part 2
Week 8: 10/12 – 10/18 Meet on campus 10/18	The basics of research, Part 5: Review and application <ul style="list-style-type: none"> • How to read and interpret the results section of a research report 	Review FWH Ch. 10-11 Read FWH Ch. 12 Completion of optional practice quizzes recommended	Review for upcoming mid-term exam Work on Research Project Part 2
Week 9: 10/19 – 10/25 Online	Research methods 1: Quantitative research—experimental, single subject	Read FWH Ch.13 - 14 Review FWH Ch. 9 Complete learning modules	Mid-term exam due Sunday 10/22 at 11:59 PM

		Complete practice quizzes on BB by Wednesday 10/25 at 11:59 PM	
Week 10: 10/26 – 11/1 Online	Research methods 2: Correlational and causal comparative	Read FWH Ch. 15 - 16 Skim FWH Ch. 17 Complete learning modules Complete practice quizzes on BB by Wednesday 11/1 at 11:59 PM	
Week 11: 11/2 – 11/8 Meet on campus 11/8	Research Methods 1-2: Review and application Introduction to Research methods 3: Qualitative research – observation and interviewing Research article discussion	Review Ch. 13 – 17 Read FWH Ch. 18 Complete learning module Completion of optional practice quizzes recommended Read research article in preparation for in-class article discussion Post answers to article questions by <u>Tuesday</u> , 11/7 at 11:59 PM	Work on Research Project Part 2
Week 12: 11/9 – 11/15 Online	Qualitative research, cont.	Read FWH Ch. 19 Complete learning module Complete practice quizzes on BB by Wednesday, 11/15	Research Project Part 2 due Wednesday 11/15
Week 13: 11/16 – 11/22 Online	Research methods 4: Mixed methods and action research Research article discussion	Read FWH Ch. 23-24 Complete learning modules Complete practice quizzes on BB by Wednesday 11/22 at 11:59 PM	Begin working on Research Project Part 3

		<p>Read research article in preparation for class discussion on 11/29</p> <p>Post answers to article questions by Wednesday, 11/22 at 11:59 PM</p>	
<p>Week 14: 11/23 – 11/29</p> <p>Meet on campus 11/29</p>	<p>Ethics in Research: Protection of Human Subjects</p>	<p>Read FWH Ch. 4</p> <p>Read APA manual pp. 11-20</p> <p>Complete IRB CITI training modules by Tuesday, 11/28 at 11:59 PM</p>	<p>Complete required IRB CITI training modules and submit screen capture of completion through BB by Tuesday 11/28 at 11:59 PM</p>
<p>Week 15: 11/30 – 12/6</p> <p>Optional on campus</p>	<p>Review of Educational Research</p>	<p>Review Ch. 9, 13 – 19; 23-24</p>	<p>Research Project Part 3 due by Sunday 12/10 at 11:59 PM</p>
<p>Finals Week</p>			<p>Exam 2 due by Tuesday, 12/12 at 11:59 PM</p>