



EDCI 695

Doctoral Research Methodology

COURSE SYLLABUS: FALL 2015

Instructor: David L. Brown, Ph.D.
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COURSE INFORMATION

Class Meetings:

Sep 02	Wednesday	4:30 PM – 10:00 PM
Sep 16	Wednesday	4:30 PM – 10:00 PM
Sep 30	Wednesday	4:30 PM – 10:00 PM
Oct 14	Wednesday	4:30 PM – 10:00 PM
Oct 28	Wednesday	4:30 PM – 10:00 PM
Nov 11	Wednesday	4:30 PM – 10:00 PM
Nov 25	Wednesday	4:30 PM – 10:00 PM
Dec 09	Wednesday	4:30 PM – 10:00 PM

Materials – Textbooks, Readings, Supplementary Readings:

Textbook(s) Required:

Mertler, Craig (2015). Introduction to Educational Research, SAGE Publications (ISBN: 978-1483375489)

Pyrzczak, Fred (2013). Evaluating Research in Academic Journals: A Practical Guide to Realistic Evaluation (5th Edition), Pyrczak Publishing (ISBN: 978-1936523023)

American Psychological Association (2009). Publications Manual of the American Psychological Association (6th Edition) (ISBN: 978-1433805615)

Prerequisite:

Doctoral level standing or consent of instructor

Multiple individualized reading and writing assignments will be required of all class participants.

Course Description:

This course is intended to familiarize doctoral students with basic research concepts and their application in conducting educational research. Further, this course is designed to help doctoral students make some of the decisions for their own research proposals. Because no one research design or methodology is considered best practice, this course places a balanced emphasis on various data collection and analysis techniques. Consequently, students will become familiar with tools with which to determine the best approach for a problem they wish to investigate, the nature of their research objectives, and the constraints of the research problem. Students will broaden their knowledge of how to access, understand, and evaluate research reports. Finally students will learn the initial steps of drafting a research proposal.

Student Learning Outcomes:

1. Distinguish between opinion articles and reports of systematic research.
2. To explore the trends and issues related to the development of a research proposal.
3. To develop an understanding of the various components of an effective research proposal.
4. To gain familiarity with a variety of qualitative and quantitative data collection and analysis techniques.
5. To identify a research problem within your field of concentration, to generate appropriate research questions, and to explore the choice of an appropriate methodology and design
6. To explore issues in designing a clearly focused, defensible research project
7. Describe the Principles underlying randomized experiments and their advantages for making casual inferences.
8. Select appropriate measures for assessing outcomes, describing implementation fidelity, and capturing process variables.
9. Acquire knowledge and strategies for designing and conducting a randomized trial.

COURSE REQUIREMENTS

Instructional / Methods / Activities Assessments

PROTECTION HUMAN SUBJECTS TRAINING

Collaborative Institutional Training Initiative (CITI)

Texas A&M University-Commerce requires all individuals conducting/participating in research projects (including faculty, staff, postdocs, research assistants and students, etc.) that involves human subjects to complete training for the Protection of Human Subjects and Responsible Conduct in Research. This requirement is met by the successful completion of the online training module from the Collaborative Institutional Training Initiative (CITI) website.

All individuals, principal investigators, co-investigators, post-docs, research assistants, undergraduate and graduate students and all other personnel engaged in research involving human subjects must complete the CITI training modules and quizzes with a minimum score of 80%. Successful completion of the course is required and the course may be repeated as necessary to achieve the 80% score. At the time of completion, a certificate can be printed by the trainee and notification is sent to the Office of Sponsored Programs.

The time to complete the training modules may be 2-4 hours. Individuals may exit and resume the training at any time. Once successfully completed, a refresher course is required every two years. A notification will be sent to you prior to the expiration of your training. At any time, you may return to the training modules and print a certificate.

Begin January 1, 2010, successful completion of the CITI modules (protection of human subjects and responsible conduct of research) is required before submission of the Institutional Review Board Protocol Form for the Protection of Human Subjects. Protocol forms will be reviewed only after the researcher has completed the CITI training.

Please follow the steps below to register and begin your training:

Visit: <https://www.citiprogram.org/Default.asp>

Click New Users Register Here
Select Texas A&M University-Commerce as your participating institution
Complete the remaining registration form

Select the Learner Group that applies to you:

Biomedical Research Investigators
Social & Behavioral Research Investigators
IRB Members
Students conducting no more than minimal risk research
Research with data or laboratory specimens- ONLY

Below are the links to the online training:

Protection of Human Subjects

<http://www.tamuc.edu/research/compliance/protection-human-subjects-training.aspx>

Responsible Conduct in Research

<http://www.tamuc.edu/research/compliance/ResponsibleConductInstructions.aspx>

If you have questions please contact Glenda Denton at 903-886-5766 or Austin Templer at 903-886-5143 or email ResearchCompliance@tamuc.edu.

You are also required to complete the Responsible Conduct of Research module. Please select the appropriate module from the following:

Biomedical Responsible Conduct of Research Course

Social and Behavioral Responsible Conduct of Research Course

Physical Science Responsible Conduct of Research Course

Humanities Responsible Conduct of Research Course

Please contact the Office of Sponsored Programs if you have questions at 903-886-5161 or Ms. Mona Gilley for additional information.

Course Topics

1. Fundamentals of Research
2. Population Sampling
3. Types of Educational Research
4. Selecting a Problem and Preparing a Research Proposal
5. The Research Report
6. Evaluating a Research Report
7. Basic Research Designs, Ethical Consideration and Report Writing
8. Qualitative research
9. Methods and Tools of research
10. Data Analysis – Quantitative & Qualitative
11. Approaches to Educational Research Design

Course Assignments

1. **IRB Assignment**: Students will identify a research problem within your field of concentration and submit an IRB proposal for departmental review and consideration. Students should go to the graduate school website to obtain the documents for submitting

the IRB Proposals Students should complete all components of IRB protocol and submit to the Departmental IRB Chairperson for review and consideration.

2. **Research Proposal Assignment**: Students will prepare an original proposal for a study relative to your own topic of interest. Students should use the criteria for critique of research articles to prepare your proposal. Your proposal will be assessed in terms of suitability for topic, focus of the research question, defensibility of the design, and scholarly writing. Instructor will provide a rubric with additional criteria
3. **Critique of Research Articles (5)**: Each student will select (5) five research articles from major research journals. Students will describe and critique the design, research questions, data analysis, and findings. See **Attachment A** for specific details on this assignment.
4. **Chapter Presentations**: Each student will select chapters from the text book – **Research and Education** and prepare a 2 – 3 page summary and reaction (power point handout) to the key ideas in the chapter. Additionally, students will select chapters from the text - **Evaluation Research and Academic Journals**, read and present the key ideas/concepts that are covered in the chapter. Students will provide copies of the PowerPoint handout for all class members during their chapter presentation. Students are strongly encouraged to actively engage class members in their chapter presentation.
5. **Self Evaluation**: Each student will submit a final self – evaluation matrix that address each objective, each course requirement, and suggest a final grade.

Grading	Point Value
<u>Assignments</u>	
IRB (Human Subjects) Assignments	100
Critique of Research Articles	100
Research Proposal Assignment	100
Chapter Presentations	100
Total Points	400

Attachment A

Article Summary information for ELED 695

You are required to complete one Research article Summary during each class meeting, that are due as specified in the topical schedule and course syllabus. The requirements for each summary are as listed below:

Summarize a professional journal article that relates to Research. As a minimum, the summary should be in APA. You can find the basic information for formatting on the web. The article summary and style should contain the following elements:

- A cover page: including your name and the citation of the article.
- Maximum 2 page summary of the article (Abstract)
- One or two page critical analysis of article, this is **your** critical analysis. The format for the analysis follows.
- The article review must be submitted using MS Word in PC format
- The entire summary with cover page should not exceed **five** pages.
- Please attach copy of article
- You should turn in your articles **one per week** during the semester.
- In this assignment, please limit your selection to articles using quantitative analysis.

Format for Critical Analysis (Some of the categories may not apply – Just say that they don't apply and why you don't think so)

I. PROBLEM

1. What is the problem?
2. What is the significance of the problem?
3. What are the variables, Dependent and Independent?

II. HYPOTHESIS, SAMPLE, INSTRUMENTS, DESIGN

4. What is/are the hypothesis/es?
5. How was the sample selected? Is it likely to be unbiased? Why or why not?
6. Are the instruments appropriate? Why or why not?
7. What is the design of this study? Is it the best design possible for testing the hypotheses? Why or why not?

III. DATA, METHOD, RESULTS, CONCLUSION, RECOMMENDATIONS

8. Describe the data used to test the hypotheses.
9. What method of analysis was used?
10. What did the Researcher conclude from the results of this study? Are the conclusions warranted by the results?
11. Can you point to any generalizations, implications, recommendations, and/or further research needs that were not discussed by the author?

12. What do you think of this study in general and why? That is, do you think the study is good/bad, important/not important, interesting/not interesting, makes sense/does not make sense? Would you act on basis of it? Why?

TECHNOLOGY REQUIREMENTS

This is not an Online Course but some technological resources will be required.

Access to a Computer with

- Internet Access.
- Microsoft Word Processing Software.
- Microsoft Power Point Software.
- Adobe or Foxit Reader to open PDF File.

ACCESS AND NAVIGATION

Dr. Brown will send email attachments of all readings relating to course topics. We will not use e-college in this course.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:

Participation & Communication: Each of you are expected to participate fully in assigned readings related to course topics, chapter presentations, discussions of current articles, and presentations of math science lessons. Your active and thoughtful participation is expected in course assignments. Regular attendance is necessary and will be expected of all students.

In regards to communication, please use my email (David.Brown@tamuc.edu) to correspond with me regarding class matters. Also, I will be happy to schedule individual appointments with you, if needed. Also, I will post readings on the class website (<http://drbrownedci695-f15.weebly.com>) for individual assignments.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures:

Lecture and readings: Material from course lectures will not always be found in your text. Use of class discussions and class activities will be included in most class sessions. Please note that all questions on the examinations will be taken from the text, as well as the classroom lectures, videos, and discussions. Typically, you will be expected to read 1 to 2 chapters per week. It is

advised that you do not wait until the night before to start the reading material. It is recommended that you stay current with chapter readings, and read the assigned chapter/s before each class.

If you would like to review an assignment, come by my office during office hours or set up an appointment. If you are having problems in class, please come and talk to me immediately. I am better able to help you if you come to me early. Please understand that you should not come to me at the end of the semester, unhappy with your grade, asking for a way to change it. Grades will not be changed.

Citizenship: All Students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Student 92s Guide Handbook, Policies and Procedures, Conduct).

Student Conduct: All students are expected to conduct themselves in a professional manner at all times. You are adults and will be treated as such. Discriminatory, rude, and inappropriate language will not be tolerated in this class and students will be asked to leave or drop the class. If a student continues to act in the same manner during future classes, the instructor reserves the right to drop the student from the course.

Late Work: Assignments are due on specific dates, as assigned. Assignments will be accepted after the due date with the exception of major projects. However, a 10 point deduction will be applied to assignments that are 1 day late, and an additional 5 points for each day thereafter.

Plagiarism: Plagiarism **WILL NOT** be tolerated and will result in an automatic **F** in the course. Various versions of your work and final papers will be run through Turnitin software – this is not meant to “catch” you in the act, but rather assist you in seeing possible areas that may be unintentionally plagiarized and allow for editing your work.

Academic integrity is the pursuit of scholarly work free from fraud and deception and is an educational objective of this institution.

Texas A&M University-Commerce has explicit rules and regulations governing academic dishonesty and academic misconduct. As the University states, “All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.” These policies are stated in detail in the Student’s Guide Handbook. Each student is expected to read this document and abide by the contained policies. These university policies will be followed in this class. The minimum penalty for an act of academic dishonesty will be the assignment grade of 0 or F on the assignment. The maximum penalty is expulsion from the University.

Texas A&M University-Commerce further does not tolerate **plagiarism** and other forms of academic **dishonesty**. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material.

If you are unsure what constitutes plagiarism and how to avoid it. Visit the following websites:

<http://www.plagiarism.org/>

<http://writingcenter.unc.edu>

<http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

Attendance: Attend all classes. Arrive on time and remain until class is dismissed. Class meets from 4:30 PM until 10:00 PM every other Wednesday unless noted otherwise by the instructor. If you must miss a class due to a professional responsibility and know ahead of time, discuss this with the instructor on the first night of class to create a make-up plan. If you must miss a class due to an unforeseen excused absence or professional responsibility, email or leave a telephone message for the instructor before class, then give the instructor a written plan for make-up work at the beginning of the next class session. You must discuss this plan with the instructor and gain his approval to receive make-up credit. Each unexcused absence will lower your final average score by 10 points. For a definition of an excused absence, please see the Texas A&M University-Commerce Catalog or Student's Guidebook.

Cell Phones/Computers: Please respect the instructor and your peers by turning off your cell phones and other technical devices during chapter presentations, unless you have notified me at the beginning of class that you have a critical family situation about which you must be notified. This should constitute only emergencies.

Scholarly Expectations: All works submitted for credit must be original works created by the scholar uniquely for the class. It is considered inappropriate and unethical, particularly at the graduate level, to make duplicate submissions of a single work for credit in multiple classes, unless specifically requested by the instructor. Work submitted at the graduate level is expected to demonstrate higher-order thinking skills and be of significantly higher quality than work produced at the undergraduate level.

University Specific Procedures:

ADA Statement

Students with Disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

Websites for Research

Mid-continent Research for Education and Learning (McREL) and the Education Commission of the States (ECS)

<http://www.ecs.org/html/educationissues/research/primer/glossary.asp>

The Center for Public Education

<http://www.centerforpubliceducation.org/Main-Menu/Policies/Consumers-guide-to-education-research/Common-definitions-for-technical-research-terms-.html>

<http://www.socialresearchmethods.net/selstat/ssstart.htm>

Videos on Stat Procedures

<http://www.youtube.com/playlist?list=PLR2hrNINZehxs0MTBWIH5O5zC5I4GQdtT>

References

Kamil, Michael, and et al(2000) Handbook of Reading Research, Volume III, Lawrence Erlbaum Associates, Mahwah, New Jersey.

Wagner, Billy (2006) Using SPSS for Social Statistics and Research Methods, SAGE Publications.

Koshy, Valsa (2005) Action Research for Improving Practice, A Practical Guide, SAGE Publications.

Robert-Homes, Guy (2005) Doing Your Early Years Research Project, A Step by Step Guide, Paul Chapman Educational Publishing

Suter, W. Newton (2005) Introduction to Educational Research, A Critical Thinking Approach, SAGE Publications.

Mertlet, A. Craig (2005) Action Research, Teachers as Researchers in the Classroom, SAGE Publications.

Lichtman, Marilyn (2006) Qualitative Research in Education, A User's Guide, SAGE Publications.

Rossmann, B. Gretchen and Marshall, Catherine (2006) Designing Qualitative Research, 4th Edition, SAGE Publications.

Kuin, Lai Mein and Robinson, Viviane (2005) Practitioner Research for Educators, A Guide to Improving Classrooms and Schools, Corwin Press.

Joyner, L. Randy and Glatthorn, A. Allan (2005) Writing the Winning Thesis or Dissertation, A Step-by-Step Guide, Corwin Press.

Muijs, Daniel (2004) Doing Quantitative Research in Education, with SPSS, SAGE Publications.

Thomas, J. Susan (2004) Using Web and Paper Questionnaires for Data-Based Decision Making, From Design to Interpretation of the Results, Corwin Press

Recommended Texts

Pan, Ling M (2008) *Preparing Literature Reviews: Qualitative and Quantitative Approaches* (2nd Edition) Pyrezak Publishing, Los Angeles, California (ISBN – 1-884585-76-0)

Silverman, David (2005) *Doing Qualitative Research*, (2nd Edition) Sage Publications, Thousand Oaks, California.

Pattern, Mildred L (2001) *Questionnaire Research: A Practical guide* (2nd Edition) Pyrezak Publishing, Los Angeles California

Adelheid A. M. Nicol and Penny M. Pexman “**Presenting Your Findings**” *A Practical Guide for Creating Tables*. **American Psychological Association. (Washington D.C)**

Adelheid A. M. Nicol and Penny M. Pexman “**Displaying Your Findings**” *A Practical Guide for Creating Figures, Posters, and Presentations*. **American Psychological Association. (Washington D.C)**

Recommended Research Journals:

- Reading Research Quarterly
- Early Childhood Research Quarterly
- Educational Researcher
- Child Development
- Journal of Science Education & Technology
- School Science and Mathematics
- Journal of Educational Psychology
- Journal of Research in Childhood Education
- Review of Educational Research
- Developmental Psychology
- Journal of Research in Adolescence
- Journal of Experimental Child Psychology
- Educational Research Quarterly
- Educational Research and Evaluation
- Elementary School Journal
- Journal of Educational Research
- Journal of Adolescent Research
- Journal of Abnormal Child Psychology
- Applied Developmental Science
- Journal of Child and family studies
- Remedial and Special Education
- Journal of Learning Disabilities
- The Journal of Experimental Education
- Journal of Literacy Research
- Early Childhood Research and Practice

COURSE OUTLINE / CALENDAR