



EDCI 631 Research Design and Analysis
3 Credit Hours
Fall, 2013

EDCI 631 Research Design and Analysis Develop competencies in producing and utilizing research to improve professional practice. Quantitative and qualitative methods will be presented. Quantitative methods will be the primary emphasis, including basic statistical methods. Students will produce a research plan and literature review (Chadron State College Graduate Bulletin 2011-2013, p. 62). This course requires 45 hours of direct instruction and student engagement. Additionally, students can expect to spend approximately 135 hours in individual study, research, and assignment preparation.

- A. Instructor:** Dr. Patti Blundell, Professor of Education
- B. Office:** Location: Old Admin 115
Hours: As posted and by appointment
Phone: (308) 432-6469
(308) 432-6383 for Dept. of Education Office Assistant
E-mail: pblundell@csc.edu
- C. Prerequisite:** Graduate status
- D. Purpose:** Understand basic research design and the use of data in defining and testing hypotheses. Develop positive attitudes toward utilization of empirical processes and application of data to practical problems. Develop expertise in research methodologies to enable student to function in a professional environment, improve educational practice, and/or continue graduate education.
- E. Method of Instruction:** A combination of guided reading, discussion of assigned readings and topics, mastery quizzes, research article analysis, small group interactions, participation in writing and data analysis tasks, and development of research project (research question(s)/hypothesis, literature review and research plan).
- F. Student Outcomes/Objectives:** The student will be able to:
1. Comprehend fundamental research design, statistical, and stylistic concepts;

2. Apply common descriptive, comparative, and predictive statistical procedures appropriately to selected data;
3. Graph statistical data;
4. Create an original research problem, develop an integrated literature review, and propose a related research plan in a format consistent with the *Publication Manual of the American Psychological Association (6th Ed.)*;
5. Develop professionally as a "Visionary Leader."

This course is a required core course in both the Education Administration and Curriculum and Instruction masters programs. The Program Outcomes are cross-referenced with Chadron State College's Conceptual Framework for the Education Unit. Intended Program Outcomes for both programs follow:

Education Administration Program Outcomes:

1. Lead and organize the collaborative development, articulation, implementation, and stewardship of a school or district vision of learning supported by the school community. (Communication, thinking skills, human relations/diversity)
2. Lead and promote a positive school culture, providing an effective standards based instructional program, applying best practice to student learning, and designing comprehensive professional growth plans for staff based on identified needs. (Methodology/technology, professionalism, assessment, thinking skills, human relations/diversity)
3. Lead and promote the success of all students by managing the organization, operations, and resources in a way that promotes a safe, efficient, and effective learning environment. (Communication, thinking skills, methodology/technology, professionalism)
4. Demonstrate the knowledge, ability and dispositions to promote the success of all students by collaborating with families and other community members, responding to diverse community interests and needs, and mobilizing community resources. (Communication, methodology/technology, human relations/diversity)
5. Demonstrate the skill, knowledge, and ability to promote the success of all students by acting fairly, with integrity, and in an ethical manner. (Human relations/diversity, communication, professionalism)
6. Demonstrate the skill, knowledge, and ability to respond to, and influence the larger political, social, economic, legal, and cultural context. (Professionalism, thinking skills, human relations/diversity)
7. Demonstrate the ability to accept genuine responsibility for leading, facilitating, and making decisions typical of those made by educational leaders. (Communication, thinking skills, methodology/technology, professionalism, assessment, and human relations/ diversity)

Curriculum & Instruction Program Outcomes

1. Develop and implement curriculum based on central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches; diverse learner needs and abilities; cognitive and developmental levels; and community and curricular goals. (methodology/technology; human relations/diversity)
2. Develop and implement curriculum using a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills. (methodology/technology; thinking skills)
3. Design and facilitate a learning environment that encourages individual and group motivation, positive social interaction, and active engagement in learning. (methodology/technology; professionalism, assessment)

4. Demonstrate cultural awareness, gender sensitivity, and racial and ethnic appreciation in fostering an inclusive learning environment. (*human relations/ methodology/technology*)
5. communicate clearly using listening, writing, speaking, and media skills in a manner that is consistent with and responsive to the specific audience. (*communication; professionalism*)
6. Utilize assessment strategies and data to improve student learning and social development at the individual and program level. (*assessment; methodology/technology*)
7. Improve instruction based on reflective practice and research-based “best practices.” The candidate will continuously seek to grow as a professional educator. (*professionalism; methodology/technology*)
8. Foster relationships with school colleagues, parents, and agencies of the larger community based on an understanding of the impacts of philosophy, sociology, political and legal forces on public education. (*professionalism; communication; human relations/diversity*)

Visionary Leader Conceptual Framework

Component	Activity
Leadership	
	Develop positive, professional associations with class members in order to complete group tasks.
Thinking Skills	
	Analyze research literature to identify design components, appropriateness of statistical procedures, and worthiness of findings. Select, define, and describe steps of a research problem.
Human Relations/Diversity	
	Work with group members to develop research skills through problem solving tasks. Learn to critique group members' research efforts in a positive and constructive manner.
Assessment	
	Review professional literature; collect and interpret data; draw valid conclusions based on data.
Communication	
	Prepare research manuscript that reflects the APA style and is understandable to the reader.
Methodology/Technology	
	Demonstrate knowledge of various types, methods, and purposes of research; and statistical procedures used in research problems.
Professionalism	
	Interpret the ethical and moral issues involved in research design and project completion.

G. Topics:

1. Introduction to educational research
2. Selecting and defining a research topic
3. Reviewing the literature

4. Preparing and evaluating a research plan
5. Selecting a sample
6. Selecting measuring instruments
7. Descriptive/survey research
8. Correlational research
9. Causal-comparative research
10. Experimental research
11. Single subject experimental designs
12. Descriptive statistics
13. Inferential statistics
14. Overview of qualitative research
15. Qualitative data collection
16. Narrative research
17. Ethnographic research
18. Case study research
19. Historical research
20. Qualitative research: Data analysis and interpretation
21. Mixed methods research
22. Action research
23. Preparing a research report
24. Evaluating a research report

H. Texts:

Gay, L.R., Mills, G.E., & Airasian, P.W. (2012). *Educational research: Competencies for analysis and applications* (10th Ed.). Upper Saddle River, NJ: Pearson Education, Inc.

APA Style Manual (6th edition) is required.

Please have your own copies of the text and the APA Style Manual. You may not share these resources during the final.

J. Tentative Schedule

Please complete reading assignments and the online quiz for the assigned chapter(s) before Thursday of the scheduled week. Most assignments will be submitted as Microsoft Word attachments using Sakai assignment area prior to 10 p.m. on the due date.			
Week start date	Reading	Assignment	Due date
8-19-13	Introduction & Chapter 1	Chapter 1 Tasks Upload using Sakai assignment area.	8-22-13
8-26-13	Chapter 2	Library Assignment	8-29-13
9-02-13	Chapters 3&4 Preparing a research plan. skim chapters 21&22	Topic statement	9-05-13
9-09-13	Chapter 5		
9-16-13	Chapter 6		
9-19-13 Due date	Task 2 (p. 105-108) Due in Sakai assignment area by 6 p.m.		

9-23-13	Chapter 7 & Chapter 12	Survey/Descriptive Article Analysis	9-26-13
9-30-13	Chapter 8 & Chapter 12	Correlational Article Analysis	10-03-13
10-7-13	Chapter 12	Chapter 12 problems and mastery quiz	Problems 10-10-13
10-14-15-13	Fall Break—No Class -- Work on Literature Review		
10-21-13	Chapter 9 & Chapter 13	Casual-comparative Article Analysis	10-24-13
10-28-13	Chapter 10 & Chapter 13	Experimental Article Analysis	10-31-13
11-04-13	Chapter 11 & Chapter 13	Chapter 13 problems and mastery quiz	Problems 11-07-13
11-11-13	Chapter 21 & 22 (skim)	Peer Review—Literature Review (paper #1)	11-12-13
11-14-13 Due date	Literature Review (paper #1) Due in Sakai assignment area by 11 p.m. as Word file attachment		
11-18-13	Chapter 14, 15, 16, 17 & Chapter 18	Qualitative Article Analysis	11-21-13
11-25-13	Chapter 4 and Chapters 5 through 13	Review chapters and begin preparing Research Proposal	
12-02-13	Chapter 19 & Chapter 20		
12-03-13 Due date	Research proposal (paper #2) Due in Sakai course assignment area 6 p.m. as Word file attachment		12-03-13 Due date
12-09-13	Final Exam	6-9 p.m. online, proctored	

K. Course Requirements and Evaluation

1. Read, study, and evaluate the assigned text chapters. Chapter quizzes will be completed online and the results automatically entered into the online grade book. Quizzes may be re-taken until the score is perfect. **Quizzes will not be required on Chapters 16, 17, 21, and 22. The textbook website and companion materials have additional practice quizzes and learning aids.**
2. Complete individual written assignments (Task 1, library assignment, topic statement, and statistical problems). As individuals or within assigned groups read and analyze 5 research articles (available in the text or online). Each article analysis is designed to aid students in understanding specific research designs and in applying concepts learned in class. **Please submit all assignments with the following format: last name, assignment title.doc(x) Example: Blundell task1.docx**

3. Select and define an appropriate research problem. Conduct a rigorous review of literature (paper #1). Develop a research plan for conducting an empirical study based on the research question(s) (paper #2).
4. Submit two graduate quality papers for grading. "The Literature Review" (paper #1) will define the research problem and describe the results of the literature review. Components of this paper will include (1) title page; (2) abstract; (3) table of contents; (4) introduction; (5) integrated review of literature (6) hypothesis or research question(s); and (7) references. "The Research Plan" (paper #2) will propose a research design appropriate to the problem stated in the first paper. Components of the second paper will build on the Literature Review (paper #1) and will include sections: (6) *hypothesis or research question(s) (repeated)*; (8) methods; (9) data collection plan; (10) data analysis plan; (11) proposed time line for study; (12) budget; (7) *references (repeated/updated)*; and (13) completed CSC IRB documents. **Completed documents for the CSC Institutional Review Board must be attached if proposed study involves human subjects, including surveys.**

All written work will be consistent with the *Publication Manual of the American Psychological Association* (6th ed.).

5. Participate positively in all group and in-class activities.

Chapter Quizzes and Final Exam -- 25%
Article analysis -- 15%
Paper #1 --30%
Paper #2 -- 20%
Attendance & participation in class activities -- 10%

Grading Scale: 93-100=A; 86-92=B; 78-85=C

L. Attendance: Attendance is required. Your presence is important for your own learning and well as your contribution to the work of the class. Attendance includes submitting on-line quizzes according to the schedule, submitting written work on or before the due dates and participating as required in individual and group activities. Full credit can be earned on work submitted on or before the due date. Late assignments may result in lower grades.

Assignments: Assignments are due on or before the specified date. If you anticipate being absent, arrange to have the assignment submitted before the due date. Article analyses must be submitted on the due date, as the answer key will be posted. No credit will be given for late article analyses.

The individual written papers [These papers include Task 2, Integrated Literature Review (paper #1), and the Research Plan (paper #2).] will be submitted in the appropriate drop box as Word attachment files. Please be sure your attachments will print properly as formatting is part of the grading. Improper formatting will result in lower grades.

M. Selected Bibliography:

- Creswell, J.W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage Publications.
- Creswell, J.W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson.
- Drew, C.J., Hardman, M.L., & Hosp, J.L. (2008). *Designing and conducting research in education*. Los Angeles, CA: Sage Publications.
- Girden, E.R. (1996). *Evaluating research articles: From start to finish*. Thousand Oaks, CA: Sage Publications.
- Merriam, S.B. (1989). *Case study research in education: A qualitative approach*. San Francisco: Josey-Bass.
- Pan, M.L. (2003). *Preparing literature reviews: Quantitative and qualitative approaches*. Los Angeles, CA: Pyrczak Publishing.
- Yin, R.K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Student Behavior:

Academic Honesty - Students are expected to conduct themselves in conformity with the highest standards with regard to academic honesty. Violation of college, state, or federal standards with regard to plagiarism, cheating or falsification of official records will not be tolerated. Students violating such standards will be subject to discipline, as per campus policies articulated in the Student Handbook. Please request a copy of the student handbook from the Dean of Students (Crites Hall (308) 432-6280).

Attendance Policy - The College assumes that students will seek to profit from the instructional program and will recognize the importance of attending every class meeting of courses for which credit is expected. Responsibility for notifying faculty of absences, and for arranging potential make-up rests with the students.

Civility - Civil behavior enhances the academic setting, and is expected at all times. The academic environment welcomes a difference of opinion, discourse, and debate within a civil environment.

Nondiscrimination Policy/Equal Educational Opportunity Policy: Chadron State College is committed to an affirmative action program to encourage admission of minority and female students and to provide environment for all students that is consistent with nondiscriminatory policy. To that end, it is the policy of Chadron State College to administer its academic employment programs and related supporting services in a manner which does not discriminate on the basis of gender, race, color, national origin, age, religion, disability, or marital status. *Student requests for reasonable*

accommodation based upon documented disabilities should be presented within the first two weeks of the semester, or within two weeks of the diagnosis, to the Disabilities Counselor (308.432-6461; CRITES 338).

Disclaimer: This syllabus and schedule is articulated as an expectation of class topics, learning activities, and expected student learning. However, the instructor reserves the right to make changes in this schedule that, within my professional judgment, would result in enhanced or more effective learning on the part of the students. These modifications will not substantially change the intent or objectives of this course and will be done within the policies and procedures of Chadron State College.