

FALL 2007 CNE 579 METHODS OF RESEARCH

Sam Houston State University
College of Education
Department of Educational Leadership & Counseling

INSTRUCTOR:

Alton Smith, Ed.D., MBA, CFP
Phone: 281-795-6419(Cell); Office: 832-249-4240
E-mail: Smith1946@aol.com ; STDAXS24 or asmith@kleinisd.net



REQUIRED TEXT(S):

1. Gay, L.R. & Airasian, P. (2006). *Educational research: Competencies and applications* (8th ed.). Upper Saddle River, NJ: Prentice Hall.
3. American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5 ed.) Washington, DC: American Psychological Association.
4. SPSS 13.0 (statistical package) to be included with text and student guide. All of this package may be bought through SHSU Bookstore.

Course Objectives The student will:

1. Demonstrate an understanding of the research process and methodology.
2. Identify and define a researchable problem, review related literature, and state the problem in terms of testable hypotheses or researchable questions.
3. Produce a research plan, and state reasons for its importance.
4. Demonstrate an understanding of the basics of sampling theory and related subject-selection techniques.
5. Demonstrate knowledge of criteria for evaluation and selection of test instruments and can apply this knowledge to a research problem of their own.
6. Describe the procedures involved in each of the types of research and can discriminate between the types of research. Use a type of research design to complete a research project.
7. Select and calculate, as appropriate, the following statistics: mean, standard deviation, z scores, t tests, ANOVA, Chi Square, and Pearson Product Moment Correlation. **Use a statistical package such as SPSS for calculating these statistics.**
8. Identify research problems requiring statistical application and demonstrate an understanding of the results.
9. Make critical evaluations of published research and judge the generalizability of a given study.
10. Develop the ability to use library resources for research purposes.
11. Learn to distinguish research and research reviews and other opinion-based writings.
12. Use technology for assignments (Blackboard, e-mail, Power Point, SPSS, internet, video conferencing, etc).
13. Learn a proper style for writing research material (APA style is required).
14. Demonstrate an understanding of ethical procedures in conducting research.

IDEA OBJECTIVES:

Essential:

- Gaining factual knowledge (terminology, classifications, methods, trends).
- Learning how to find and use resources for answering questions or solving problems.
- Developing skill in expressing oneself orally or in writing.

Important:

- Learning to *apply* course material (to improve thinking, problem solving, and decisions).
- Learning to *analyze* and *critically evaluate* ideas, arguments, and points of view.

STANDARDS MATRIX

The following abbreviations will be used: 00= Course Objectives, CA = CACREP objectives, SB = SBEC and NC = NCATE competencies and standards.

Learning Outcomes	Activity	Performance Standards Assessment
<p>Demonstrate an understanding of the research process and methodology. 8a. Research and Program Evaluation - Studies that provide an understanding of research methods, statistical analysis, needs assessment, and program evaluation, including the importance of research and opportunities and difficulties in conducting research in the counseling profession. 8f. Ethical and legal considerations.</p>		<p>, CA -K8a, K8f SB- Domain II, 007 JNA- 1,2</p>
<p>Identify and define a researchable problem, review related literature, and state the problem in terms of testable hypotheses or researchable questions. Develop the ability to use library resources for research purposes. 8b. Research Methods such as qualitative, quantitative, single case designs, action research, and out-come based research 8f. Ethical and legal considerations.</p>	<ul style="list-style-type: none"> • 	<p>:CA -K 8b, K 8f SB- Domain III 010 ;NA- Standard 2 ,4</p>
<p>Produce a research plan and state reasons for its importance. 8c. Use of technology and statistical methods in conducting research and program evaluation, assuming basic computer literacy.</p>		<p>CA -K 8c, K 8f SB -I (003) NA- Standards</p>

'8f. Ethical and legal considerations	ill 3,4)
Produce a research plan and state reasons for its importance.	CA -K 8d, K 8f SB - III
8d. Principles, models, and applications of needs assessment, program evaluation, and use of findings to effect program modifications.	(007) ;NA- Standards
8f. Ethical and legal considerations	11(3.4)
Produce a research plan and state reasons for its importance.	"j ICA -K 8d, K 8f
8d. Principles, models, and applications of needs assessment, program evaluation, and use of findings to effect program modifications.	SB -1 (002) ;NA -1 (2)
8f Ethical and legal considerations.	
Demonstrate an understanding of the basics of sampling theory and related subject-selection techniques.	CA -K 8e, K8f iSB - III (009)
8e. Use of Research to improving counseling effectiveness	Standards
8f Ethical and legal considerations.	1,2,4
Demonstrate knowledge of criteria for evaluation and selection of test instruments and can apply this knowledge to a research problem of their own. 8e. Use of Research to improving counseling effectiveness.	CAKSe, K8f SB- III
8f Ethical and legal considerations.	;NA- Standards
Describe the procedures involved in each of the types of research and can discriminate between the types of research. Use a type of research design to complete a research project.	iCA -K8d, K8f SB- III (007)
8d. Principles, models, and applications of needs assessment, program evaluation, and use of findings to effect program modifications. 8f Ethical and legal considerations.	;NA- Standards
Select and calculate, as appropriate, the following statistics: mean, standard deviation, z-scores, t tests, ANOVA, Chi Square, and Pearson Product Moment Correlation. Use a statistical package such as SPSS for calculating these statistics. 8c. Use of technology and statistical methods in conducting research and program evaluation, assuming basic computer literacy. 8f Ethical and legal considerations.	!CA - K8c, K8f SB - III (007) •NA1.2,4

Use a type of research design to complete a research project. 8c. Use of technology and statistical methods in conducting research and program evaluation, assuming basic computer literacy. 8f Ethical and legal considerations.		CA -K 8c, K 8f SB - III (007) NA 1,2,4
Select and calculate, as appropriate, the following statistics: mean, standard deviation, z-scores, t tests, ANOVA, Chi Square, and Pearson Product Moment Correlation. Use a statistical package such as SPSS for calculating these statistics. 8c. Use of technology and statistical methods in conducting research and program evaluation, assuming basic computer literacy. 8f Ethical and legal considerations.		CA -K8c, K 8f SB - III (007) NA 1, 2, 4 1 1
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Learn a proper style for writing research material (APA is required). 8f Ethical and legal considerations.		CA -K 8f SB -III (007) :NA- 1,2,4i

Web addresses for standards:

CACREP: <http://wmv.counseling.org/cacrep/2001standards700.html>

SBEC: Standards for the School Counselor Certificate

[http://info.sos.state.tx.us/pub/plsql/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc](http://info.sos.state.tx.us/pub/plsql/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc)

NCATE: <http://www.ncate.org>

MEANS OF EVALUATION

Exams - 3 @ 50 points each =150 Total Points Available
Research Paper. 200 Total Points Available. Maximum
Points Available = 350 points

GRADING SCALE

A = 315-350 points
B = 280-314 points
C = 245 - 279 points
D = 210-244 points
F = Below 210 points

*Educational research: Competencies for analysis
and applications* (8th ed.) Required reading:

Chapter 1 page 3-19
Chapter 2 page 56.5 - 61
Chapter 3 page 73 - 78.8
Chapter 4 page 99-117
Chapter 5 page 121-154
Chapter 7 page 191 - 207
Chapter 9 page 233 - 246
Chapter 11 page 301 - 334
Chapter 12 page 337 - 382
Chapter 13 page 383 - 397

Course Schedule

August 21	Introduction
August 28	Chapter 1 & 2 Discussion
Sept. 04	Ethics mini-course certificate due Informed Consent / Human Subjects Review Discussion Chapter 3 & 4 Discussion Library Research Meeting
Sept 11	Chapter 7 Discussion Test Review - Chapter 1, 2, 3, 4, & 7.

- Sept 18 Library Work on **Review Of Literature**
- Sept 25 Exam One** - Chapter 1, 2, 3, 4, & 7
Rough Draft of Review of Literature due (1.5 page minimum)
 Chapter 5 Discussion
- Oct. 02 **Research Proposal Human Subjects Paperwork given to Professor**
 Rough Draft of Review of Literature feedback given by professor
 Chapter 9 Discussion
- Oct. 09 Research Proposal feedback given by Professor
 Chapter 11
Submit Research Proposal to Human Subjects Review Board by 3PM, Friday, Oct 14th.
- Oct. 16 Research Day - No Class Held (Work on research project)
- Oct. 23 Chapter 11
 Test Review for Exam Two
- Oct. 30 Exam Chapter 5, 9, & 11**
 Work on research project in class.
- Nov. 6 Chapter 12 (page 337 - 367)
- Nov 13 Chapter 12 (page 368 - 382); Chapter 13
 Work on research projects in class
- Nov. 20 Library Day
- Nov. 27 Review for final examination
Research Report Due
- Dec 4 **Final Examination** - Chapter 12 & 13

According to the 2001 Standards of the Council for Accreditation of Counseling and Related Educational Programs (CACREP), curricular experiences and demonstrated knowledge in each of the eight common core areas are required of all students in a CACREP program. While not part of a CACREP credentialed program as of August 31, 2005, the following objectives as delineated in the 2001 CACREP Standards are focused upon using the methods following each objective and in the approximate time frame given.

7. ASSESSMENT - studies that provide an understanding of individual and group approaches to assessment and evaluation, including all of the following:
 - b. basic concepts of standardized and nonstandardized testing and other assessment techniques including norm-referenced and criterion-referenced assessment, environmental assessment, performance assessment, individual and group test and inventory methods, behavioral observations, and computer-managed and computer-assisted methods;

- c. statistical concepts, including scales of measurement, measures of central tendency, indices of variability, shapes and types of distributions, and correlations;

Chapter 5 Selecting Measuring Instruments [measuring scales and variables] Sept 25, 2007

- d. reliability (i.e., theory of measurement error, models of reliability, and the use of reliability information);

Chapter 5 Selecting Measuring Instruments [reliability of measuring instruments; standard error of measurement] Feb 26, 2007

- e. validity (i.e., evidence of validity, types of validity, and the relationship between reliability and validity);

Chapter 5 Selecting Measuring Instruments [validity of measuring instruments] Sept. 26, 2007

- f. age, gender, sexual orientation, ethnicity, language, disability, culture, spirituality, and other factors related to the assessment and evaluation of individuals, groups, and specific populations;

Chapter 5 Selecting Measuring Instruments Sept. 25, 2007

- g. strategies for selecting, administering, and interpreting assessment and evaluation instruments and techniques in counseling;

Chapter 5 Selecting Measuring Instruments [consequential validity] Sept. 25, 2007 \.

ethical and legal considerations.

Supplemented by lecture Sept. 25, 2007 and elsewhere

RESEARCH AND PROGRAM EVALUATION - studies that provide an understanding of research methods, statistical analysis, needs assessment, and program evaluation, including all of the following:

- a. the importance of research and opportunities and difficulties in conducting research in the counseling profession,

Chapter 1 - Introduction to Educational Research (page 3-8) Aug. 28, 2007

- b. use of technology and statistical methods in conducting research and program evaluation, assuming basic computer literacy;

Chapter 7 Computer Research Sept. 11, 2007,

Americans with Disabilities Act

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Counseling Center.

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). This request must be made in the first fifteen days of the semester or the first seven days of a summer session in which the absence (s) will occur. The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

Research Project

After receiving approval from the Human Subjects Review Board at Sam Houston State University, students will gather

research data, will analyze this data, and will complete a written research report using APA style.

While there is no page length minimum, researchers should cover the material in a manner that is appropriately broad and in depth given the time constraints.

While some measure of qualitative research is allowed, the research must have a substantial quantitative portion and inferential statistics must be an integral part of the analysis of data.