

Summer 2008
CNE 579 METHODS OF RESEARCH

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

INSTRUCTOR:

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Office Hours : By appointment.

REQUIRED TEXT(S):

1. Gay, L.R. & Airasian, P. (2006). *Educational research: Competencies for analysis and applications* (8th ed.). Upper Saddle River, NJ: Prentice Hall.
3. American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th 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.

MEANS OF EVALUATION

<u>ASSIGNMENT</u>	<u>Point Value</u>	<u>DUE DATE (Midnight)</u>
Applying What You Know Chpt. 1	10	JUNE 9
Applying What You Know Chpt 4	10	JUNE 25
Applying What You Know Chpt 5	10	JULY 2
Applying What You Know Chpt 7	10	JULY 9
Applying What You Know Chpt 9	10	JULY 13
Applying What You Know Chpt 11	10	JULY 17
Applying What You Know Chpt 12	10	JULY 23
Numerical Homework Chapter 5	5	JULY 2
Numerical Homework Chapter 7	5	JULY 10
Numerical Homework Chapter 11	5	JULY 20
Numerical Homework Chapter 12	5	JULY 24
Test Chapter 1	50	JUNE 11
Test Chapter 2	30	JUNE 18
Test Chapter 3	30	JUNE 25
Test Chapter 4	65	JULY 2
Test Chapter 5	75	JULY 8
Test Chapter 7	55	JULY 11
Test Chapter 9	55	JULY 16
Test Chapter 11	90	JULY 21
Test Chapter 12	100	JULY 25
Test Chapter 13	40	AUG 2
Research Paper Content	100	JULY 31
APA Style of Research Paper	50	JULY 31
Discussion Board	<u>10</u> (Based on discussion board for the semester)	

TOTAL: 840

GRADING SCALE

- A = 756 – 840 Points**
- B = 672 – 755 Points**
- C = 588 - 671 Points**
- F = Below 588 Points**

READING ASSIGNMENTS

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

STANDARDS MATRIX

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

Date/Objectives/ Learning Outcomes	Activities (See Activities List Attached for additional information; - G = group, A = alone, Pts. needed)	Performance Assessment	Standards
--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.			CA -K8a, K8f SB - Domain II, 007 NA - 1,2

<p>2</p> <p>-- Identify and define a researchable problem, review related literature, and state the problem in terms of testable hypotheses or researchable questions.</p> <p>-- Develop the ability to use library resources for research purposes.</p> <p>8b. Research Methods such as qualitative, quantitative, single case designs, action research, and outcome based research</p> <p>8f. Ethical and legal considerations.</p>			<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.</p> <p>8c. Use of technology and statistical methods in conducting research and program evaluation, assuming basic computer literacy.</p> <p>8f. Ethical and legal considerations</p>			<p>CA -K 8c, K 8f SB - I (003) NA - Standards II 3,4)</p>
<p>Produce a research plan and state reasons for its importance.</p> <p>8d. Principles, models, and applications of needs assessment, program evaluation, and use of findings to effect program modifications.</p> <p>8f. Ethical and legal considerations</p>			<p>CA -K 8d, K 8f SB - III (007) NA - Standards II (3.4)</p>
<p>Produce a research plan and state reasons for its importance.</p> <p>8d. Principles, models, and applications of needs assessment, program evaluation, and use of findings to effect program modifications.</p> <p>8f Ethical and legal considerations.</p>			<p>CA -K 8d, K 8f SB - I (002) NA - I (2)</p>
<p>Demonstrate an understanding of the basics of sampling theory and related subject-selection techniques.</p> <p>8e. Use of Research to improving counseling effectiveness</p> <p>8f Ethical and legal considerations.</p>			<p>CA -K 8e, K 8f SB - III (009) NA - Standards 1, 2, 4</p>
<p>-- Demonstrate knowledge of criteria for</p>			<p>CA K 8e, K 8f</p>

<p>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. 8f Ethical and legal considerations.</p>			<p>SB- III NA - Standards 1, 2, 4</p>
<p>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. 8d. Principles, models, and applications of needs assessment, program evaluation, and use of findings to effect program modifications. 8f Ethical and legal considerations.</p>			<p>CA -K8d, K8f SB - III (007) NA - Standards 1, 2, 4</p>
<p>-- 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.</p>			<p>CA - K8c, K8f SB -III (007) NA 1, 2, 4</p>
<p>--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.</p>			<p>CA -K 8c, K 8f SB -III (007) NA 1, 2, 4</p>
<p>-- 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</p>			<p>CA -K8c, K 8f SB - III (007) NA 1, 2, 4</p>

program evaluation, assuming basic computer literacy. 8f Ethical and legal considerations.			
-- 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 -K 8c, K8f 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 -K 8c, K8f SB - III (007) NA 1, 2, 4
-- Learn a proper style for writing research material (APA is required). 8f Ethical and legal considerations.			CA -K 8 f SB - III (007) NA - 1, 2, 4

Web addresses for standards:

CACREP : <http://www.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>

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 the program. While the counseling program at SHSU is not a CACREP credentialed program as of May 31, 2006, 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;
Chapter 5 Selecting Measuring Instruments [types of measuring instruments]
 - 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]
 - 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]
 - 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]
 - 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
 - g. strategies for selecting, administering, and interpreting assessment and evaluation instruments and techniques in counseling;
Chapter 5 Selecting Measuring Instruments [consequential validity]
 - i. ethical and legal considerations.
Supplemented by lecture
8. 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)

- b. research methods such as qualitative, quantitative, single-case designs, action research, and outcome-based research;

Chapter 1 pages 9 -16

Chapter 2 pages 56 – 61 Hypotheses

Chapter 9 - Experimental Research

Chapter 11 – Descriptive Research

Chapter 12 – Inferential Research

Chapter 13 – Postanalysis Considerations

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

Chapter 7 Correlational Research

Library Presentation by Library Science Personnel - Databases

Chapter 4 Selecting a Sample

- d. principles, models, and applications of needs assessment, program evaluation, and use of findings to effect program modifications;

Textbook Chapter 1 [Action research]

- e. use of research to improve counseling effectiveness; and

Students' research projects may include this.

- f. ethical and legal considerations.

Chapter 3 The Ethics of Research pages 73 – 78

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. Section 51.911 (a) (2) defines a religious holy day as: "a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20...." 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). 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. For a complete listing of the university policy, see:

http://www.shsu.edu/~vaf_www/aps/documents/861001.pdf

ACADEMIC DISHONESTY

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. For a complete listing of the university policy, see:

<http://www.shsu.edu/administrative/faculty/sectionb.html#dishonesty>

Under no circumstances are you to disclose to or discuss with other students in this class (past, present, or future):

- 1) The general or specific nature of the content of any examination in this class.**
- 2) The specific answers of numerical homework assignments in this class.**
- 3) Answers to crossword puzzles.**
- 4) Responses to use in any discussion board forums.**

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance are expected to visit with the Office of Services for Students with Disabilities located in the Counseling Center . They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

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 . For a complete listing of the university policy, see:

http://www.shsu.edu/~vaf_www/aps/811006.html

VISITORS IN THE CLASSROOM:

Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

Assignment Due Dates

You may and are encouraged to finish these assignments before due dates. The due dates are required to keep you at the fast pace that we must go at in a summer session and I cannot give you specific grade feedback on assignments until everyone has completed an assignment. There will be a 10% penalty of the available points for every 24 hour period past the due date. This penalty helps you keep up and allows everyone to get feedback in a timely fashion. Please keep up with the due dates. If you move at a faster pace you will avoid missing deadlines. I urge you to keep these dates marked down several places where you will be reminded. If the date conflicts with something you would want to finish the assignment early.