COSD 70323
Research in Communication Sciences and Disorders
Spring 2007

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Required Texts: Cozby, P. (2001). *Methods in Behavioral Research.* Palo Alto, CA: Mayfield Publishing Co.
Schiavetti, N. And Metz, D. (2006). *Evaluating Research in Communicative Disorders.* Boston, MA: Allyn & Bacon.

Course Purpose: The purpose of this course is to increase students' abilities to understand and critically evaluate research reports; that is, to become a better consumer of research. In addition, students will be introduced to issues related to the design and development of research; that is skills in generating research.

Course Objectives: By the end of the course, students will demonstrate the following knowledge and skills by accurately answering at least 70% of quiz questions and/or successfully completing course assignments related to:

1) Describing the scientific approach to answering research questions and confirming hypotheses.
2) Applying ethical behavior while conducting research.
3) Evaluating a variety of empirical research strategies including experimental and descriptive research.
4) Evaluating the nature of and advantages and disadvantages of research designs used in communication disorders, including group and single subject designs.
5) Describing measurement issues including levels of measurement, factors that affect the quality of measurement, and reliability and validity of measurements.
6) Evaluating treatment efficacy, including understanding internal and external validity factors that affect the study of treatment efficacy.
7) Organizing and analyzing data collected to answer research questions.

Course Requirements:

Quiz I	80 points
Quiz II	80 points
Quiz III	80 points
Quiz IV	80 points
Quiz V	80 points
Solutions to Problems	
Problem I	50 points
Problem II	50 points

500 points

Grade Requirements
90 - 100% = A
80 - 89% = B
70 - 79% = C
<70% = F

If you are ill when an examination is scheduled, call and leave a message at 817-257-6876 before the exam indicating that you will not be present at the exam. Without such prior notice, students will **not** be allowed to make up the examination.

Texas Christian University complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 regarding students with disabilities. If you require accommodations for a disability, please contact the **Coordinator for Students with Disabilities in the Center for Academic Services, located in Sadler Hall 11.** Further information can be obtained from the Center for Academic Services, TCU Box 297710, Fort Worth, TX 76129, or at 817-257-7486.

Adequate time must be allowed to arrange accommodations and accommodations are not retroactive; therefore, students should contact the Coordinator as soon as possible in the academic term for which they are seeking accommodations. *Each eligible student is responsible for presenting relevant, verifiable, professional documentation and/or assessment reports to the Coordinator*. Guidelines for documentation may be found at http://www.acs.tcu.edu/DISABILITY.HTM.

Students with emergency medical information or needing special arrangements in case a building must be evacuated should discuss this information with their instructor/professor as soon as possible.

Academic misconduct will not be tolerated in any form. If you violate the Academic Conduct Policy as stated in the University Bulletin, the following sanctions will be taken:

1. a "zero" will be assigned for that test or project.
2. the chair of the department will be notified.

If there is a second violation, the student will receive a course grade of "F." If the violation occurs during the final examinations, an "NR" (grade not reported by instructor) will be assigned until the appropriate grade decision is made.

Adherence to the academic honesty policy in the TCU Bulletin/Handbook is expected throughout all aspects of coursework.

Solutions to Problems: Point value: 100 points

Problem-based learning (PBL) is an instructional method in which "real world" problems are used as the context for students to acquire an integrated knowledge-base along with critical thinking and problem-solving skills. It is an active collaborative process that will aid you in taking responsibility for your own learning. We will use PBL to increase your abilities to critically review research reports and to develop your skill in generating research to answer questions relevant to communication sciences and disorders. It is hoped that as a result of this process you will: 1) view a problem as a challenge which you will engage with initiative and enthusiasm; 2) reason effectively, accurately, and creatively from an integrated, flexible and usable knowledge base; 3) monitor and assess your ability to achieve a desired outcome given a challenge; 4) address your own perceived inadequacies in knowledge and skills efficiently and effectively; and 5) collaborate effectively as a member of a team working to achieve a common goal.

To this end, we will complete the following steps in addressing three different problems:

1. For each problem, you will be assigned to a group. Your group should determine who in your group will serve as leader, recorder, and timekeeper.
2. The problem will be presented to all groups in class.
3. In your group, you will list what is known about the problem (i.e., "What do we know?").

Remember, every student knows something about the problem.

4. You will then list what is needed to solve the problem (i.e., “What do we need?”). In answering this question, you will be defining the learning issues.
5. Next, your group should list possible actions to getting the information (i.e., “What should we do?”). Your group will need to decide what you all need to check out and what you should assign to individuals to bring back to the group.
6. On the date mentioned on the course calendar, your group will discuss and/or present and support the solution to the problem. Your presentation should include both an oral and written report. Your solution will be evaluated using the criteria described in the attached evaluation form.
7. On the day of the discussion/presentation, you will also submit a completed evaluation form that will lead you in assessing your learning and the learning process.

NOTE: This is an iterative model, in that steps 3 through 5 may be conducted concurrently as new information becomes available and redefines the problem. Also, you may complete step six more than once, in that you may be revisiting “first drafts” of solutions.

Course Calendar

Date	Topic	Reading / Assignment	
		S & M	Cozby
Jan. 16	Science & Scientific Approach	Ch 1	Ch 1
Jan.18	Research Problems & Hypotheses		Ch 2
Jan. 23	Constructs, Variables & Definitions	Ch 2: pp 25232 Ch 4: pp 109-111	Ch 4: pp 61-69 Ch 5: pp 94-96
Jan. 25	Sets, Relations & Variance; Research Design as Variance Control		
Jan. 30	Research & Ethical Concerns	Ch 1: pp 18-22	Ch 3
Feb. 1	Quiz I		
Feb. 6, 8	Measurement Concepts: Reliability & Validity	Ch 4: pp 109-123	Ch 4: pp 72-73 Ch 5: pp 84-93
Feb. 13, 15, 20	Experimental, Descriptive & Combined Research	Ch 2: pp 32-77	Ch 4: pp 69-83 Ch 6, 7, 10
Feb. 22	Quiz II		
Feb. 27	Discussion of Solutions to Problem 1		
March 1, 6	Research Design in COSD: Group & Single Subject Designs	Ch 3	Ch 8, 9, 11
March 8	Group work		
Mar 13, 15	SPRING BREAK		
Mar 20, 22, 27	Treatment Efficacy Research	Ch 5: pp 132-166	
March 29	Group Work		
April 3	Quiz III		
April 5, 10, 12	Organizing & Analyzing Data	Ch 6	Ch 12, 13
April 17	Understanding, Generalizing, & Presenting Results	Ch 7-10	Ch 14
April 19	Quiz IV		
April 24, 25	Group Work		
May 1	Discussion of Solutions to Problem 2		
R, May 10, 11:30 – 2:00	Quiz V		