P-770: Basic Research Methodology

Christian Theological Seminary
Fall 2006

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Credit Hours: 3 (Tuesday evenings, 6pm – 8:45pm)

Learning Objectives

1. To recognize the relevance, usefulness, and limitations of the scientific paradigm, particularly as it applies to professional development and the development of the counseling profession.

2. To understand major systemic considerations when conducting research.

3. To understand issues associated with diversity when conducting research.

4. To intelligently evaluate research by being familiar with the core principles of quantitative, qualitative and mixed research methodologies.

5. To recognize the complementary nature of quantitative and qualitative design.

6. To understand the factors one must consider in an effort to determine which research design is most useful for a particular research question at a particular point in time.

7. To understand the major considerations (e.g., validity, reliability, sampling strategy, design, context) one must weigh in an effort to make sense of research findings.

8. To understand clinical and statistical significance and the major factors associated with determining significance (e.g., randomization/sampling, independent variable, dependent variable).

9. To become familiar with A.P.A. format, to understand the sections typical in a research report, and to effectively demonstrate this knowledge.

10. To understand ethical issues associated with research.

11. To equip students to locate and evaluate research in their area of major interest.
MFT Core Competencies Addressed in this Course:

- Know the extant MFT literature, research, and evidence-based practice (6.1.1)
- Understand research and program evaluation methodologies, both quantitative and qualitative, relevant to MFT and mental health services (6.1.2)
- Understand the legal, ethical, and contextual issues involved in the conduct of clinical research and program evaluation (6.1.3)
- Recognize opportunities for therapists and clients to participate in clinical research (6.2.1)
- Read current MFT and other professional literature (6.3.1)
- Use current MFT and other research to inform clinical practice (6.3.2)
- Critique professional research and assess the quality of research studies and program evaluation in the literature (6.3.3)
- Determine the effectiveness of clinical practice and techniques (6.3.4)
- Evaluate knowledge of current clinical literature and its application (6.4.1)

Course Requirements

Required Texts:


Recommended Texts:


Description of Assignments

**Journal Article Analysis Group Project:** 15 points

Beginning Tuesday, October 3 and continuing through class 13 (with the exclusion of class #9: 11/7/06) group presentations will occur. Due to the size of the class, students will form 8 groups of 6 people per group. Each group will analyze a journal article related to the topic covered that week by course reading material. For example, Group 1 will present on October 3, 2006 and select a study utilizing either a grounded theory or phenomenological methodology. Ideas for journal articles addressing that week’s research topic can be found at the end of each chapter of the Sprenkle & Piercy (2005) book under the Exemplars or References sections.

A copy of the article the group plans to critique & present is due 2 weeks prior to class presentation and must be given to course instructor in order to receive full credit for the assignment.
In addition, the following material must be presented:

1. The state of knowledge about the research question(s) prior to this paper  
   (primarily as presented by the paper itself)
2) Data about the author(s) of the paper (Where are they?, How are they associated if plural?, What have they published in similar areas before?)
3) What journal or publisher has presented the material? and how is that appropriate to the typical material that source publishes?
4) In what ways and to what extent is the study a good example of the chapter from Sprenkle & Piercy (2005) in which the article is referenced?
5) What is your evaluation of the general usefulness of the study? and on what do you base that evaluation?
6) What are the most interesting and useful findings of the study for clinicians and future researchers?

Each group will present a handout for class members summarizing and highlighting relevant study information.

And lastly, each group member will hand in a brief (1 page) written description of:
- their contribution to the group effort
- a brief analysis of how the group worked together in arriving at the finished project
- discussion of what was learned from this experience

Midterm Exam: 20 points
Written exam will be given during class #9 (11/7/06) covering material through class #7.

Effectiveness/Design Paper Bibliography 5 points
As described briefly in “reference list” section under the Effectiveness/Design assignment, submit an APA-formatted bibliography (15-20 references) given your content area.
- Bibliography due at the beginning of class #8 (31 October 2006)

Effectiveness/Design Paper 30 points
This assignment is designed to examine the relationship between clinical practice and research design. It will address these primary questions: (1) What are the effectiveness claims in the literature about X problem (presenting issue and/or diagnostic category)? (2) What is the nature of the research that has investigated psychotherapy’s effectiveness with X? And (3) What are the strengths and limitations of that body of research literature, including both its scope and its design?

The central parts of the assignment include:

1. Identify a content/diagnostic category area (e.g., depression, alcohol dependence, schizophrenia, PTSD, anorexia, anxiety, bi-polar disorder, sexual assault/trauma, infidelity, hypo arousal) of your interest. Create a scope that is manageable, e.g., depression among children (ages 7-11), or adult-onset schizophrenia.
2. **Introduction Section.** Summarize the outcome literature for your selected content area. Including the following information:

(a) Present the specific problem under study (e.g., depression among children), including the nature (e.g., typical symptoms and impact), and scope of the problem (e.g., incidence and prevalence rates). Cite primary sources throughout (1 page)
(b) Briefly (2 pages) summarize the major outcome research to date in your selected content area. What has been done? What are the general conclusions?

3. **Article Critique.** From your review, select two outcome studies that suggest the treatment/intervention is effective, efficacious, or promising.

First: Summarize each study, including the following information (2-3 pps. per article):
1. Participants/demographics
2. Procedures regarding selecting and assigning participants (sampling & assignment)
3. Apparatus (i.e., equipment)
4. Execution (steps taken), e.g., instructions to participants; experimental manipulation
5. Results (summarizes the data collected and the statistical/analytical procedures, including when available clinical and statistical significance, statistical power, & effect size).
6. Discussion (interpretation of results).

Second: Critique each study, using the framework discussed in class and included in course readings. Overall, keep in mind the following (3-4 pages per article):

Strengths and limitations of each study, including the strengths and limitations of the design itself (i.e., if a within-subjects design was used, what are the merits and limitations of that design, regardless of methods). Be certain to include a critique of the degree to which each study accounted for diverse populations. Be thorough and succinct. Fully demonstrate your understanding of research and your ability to critically evaluate empirical literature. (3 pages per article).

Paper will be evaluated based on:
1) degree to which paper directly responds to assignment questions
2) accuracy and demonstrated understanding of course material\
3) accurate use of APA format

**Length of paper:** 15-18 pages (not counting bibliography)

**APA style resources:**
1) [http://www.docstyles.com/apacrib.htm#top](http://www.docstyles.com/apacrib.htm#top)
2) [http://www.psywww.com/resource/apacrib.htm](http://www.psywww.com/resource/apacrib.htm)
   - This assignment is due at the start of class #13 (12 December 2006) (Late assignments will receive half-credit.)

**Final Exam:**

30 points

Comprehensive written exam will be given during finals week ( Tues. evening at 6pm on December 19, 2006). Material from class #8 through class #13 will be emphasized.

- Test to be taken finals week during regularly scheduled class time
Grading and Attendance

Grades will be determined by the number of points accumulated out of a total of 100 possible points.

- A: 93 - 100 points
- A-: 90 - 92 points
- B+: 87 - 89 points
- B: 83 – 86 points
- B-: 80 – 82 points
- C+: 77 – 79 points
- C: 73 – 76 points
- C-: 70 - 72 points
- B+: 87 - 89 points
- D+: 67 – 69 points
- D: 63 – 66 points
- D-: 60 – 62 points
- F: below 60 points

According to Seminary policy, students are required to notify the course instructor of any absences. No student may receive credit for a course if they miss more than ¼ of the class sessions.

Course Schedule

5 September (Session 1): Orientation and Organization: Syllabus Overview
Electronic Search Strategies

12 September (Session 2): Empirical Validation/ Common Factors

Readings:

Recommended Reading
19 September (Session 3): Ethics and Diversity

GROUP #1 ARTICLE DUE TO INSTRUCTOR

Readings:

26 September (Session 4): Basic Steps/Key Concepts

GROUP #2 ARTICLE DUE TO INSTRUCTOR

Readings:
Chapter 2: Identifying and operationalizing research topics, (pp.31-42).
Chapter 3: Choosing research designs, (pp. 43-55).
Chapter 4: Validity issues in research design, (pp. 56-77).

3 October (Session 5): Qualitative Methodology:
Grounded Theory/Phenomenology

GROUP #1 PRESENTATION

GROUP #3 ARTICLE DUE TO INSTRUCTOR

Readings:
Chapter 10: Qualitative Research, (pp. 235-266).
Chapter 8: Reading reports of qualitative research – Critically (pp. 209-226)


10 October (Session 6): Focus Groups/Action Research

GROUP #2 PRESENTATION
GROUP #4 ARTICLE DUE TO INSTRUCTOR

Readings:


17 October No Class! (Mid-Term Break)

24 October (Session 7) Ethnography/Feminist Autoethnography/Performance Methodology

GROUP#3 PRESENTATION
GROUP#5 ARTICLE DUE TO INSTRUCTOR

Readings:


31 October (Session 8) Clinical Trials in MFT Research/Basic Quantitative Concepts/Midterm Review

Bibliography due
GROUP #4 PRESENTATION
GROUP #6 ARTICLE DUE TO INSTRUCTOR

Readings:
   Chapter 11: Designing and evaluating the independent variable, (pp.269-280).
   Chapter 12: Designing or choosing the dependent variable, (pp. 282-314).
   Chapter 7: Reading reports of quantitative research – Critically (pp. 171-207)

7 November (Session 9) Midterm Exam (Good Luck!!!)

14 November (Session 10): Approaches to Prediction

GROUP #5 PRESENTATION
GROUP #7 PRESENTATION

Readings:
   Chapter 14: Investigator, experimenter, and participant bias, (pp. 339-356).

21 November No Class!!! (Thanksgiving Recess)

28 November (Session 11): Meta Analysis/Economic Evaluation

GROUP #6 PRESENTATION
GROUP #8 ARTICLE DUE TO INSTRUCTOR
Readings:
   Chapter 6: Between-groups and within-subjects designs, (pp.121-148).
   Chapter 7: Quasi-experimental and time-series designs, (pp. 151-171).
   Chapter 8: Single-subject designs, (pp. 173-197).

5 December (Session 12): Mixed Methods Designs:
Survey Research/ The Delphi Method

GROUP #7 PRESENTATION

Readings:
   Chapter 9: Quantitative descriptive designs, (pp.200-232).

12 December (Session 13): Task Analysis/Program Evaluation

Final Project due:
GROUP #8 PRESENTATION

Readings:

19 December: Final Exam (Good Luck!!! Happy Holidays!!!)