

# LEWIS & CLARK COLLEGE

## COURSE OUTLINE

**DEPARTMENT:** Counseling Psychology

**COURSE NUMBER:** CPSY 535, Fall 2009

**CREDITS:** 3

**COURSE TITLE:** Research Methods in Counseling

**INSTRUCTOR:** Zip Krummel, EdD, NCC, NCSC, CTS

**ROOM:** SCON Rm 101; 5:30 pm – 8:45 pm

**PREREQUISITE:** Not want to do research

**TO SCHEDULE AN APPOINTMENT:** call or e-mail

**OFFICE PHONE:** 541-490-0587 (cell)

**E-MAIL:** krummel@lclark.edu

**FAX:**

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*Students needing an accommodation should immediately inform the course instructor. Students are referred to Disability Services to document their disability and to provide support services when appropriate.*

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**COURSE OBJECTIVES - To provide opportunities to learn and practice the skills necessary to critically think about and analyze published research. Emphasis will be on the identification and definition of the various components of the research process including hypothesis, sampling, operationalization of variables, design, data analysis and conclusions.**

### **Specific Objectives**

1. To develop a basic understanding of what research is and why it is important.
2. To recognize the different types of research methods.
3. To provide a basic understanding and knowledge of program evaluation.
4. To provide a basic understanding and knowledge of applicable research ethics.
5. To provide a basic working knowledge of the design components of a research model, to include:
  - a. Hypothesis and mission

- b. Project planning
  - c. Design principles
  - d. Data collection
  - e. Data analysis
  - f. Inferences and reporting
6. To provide a basic understanding and ability to question and critically evaluate current research in counseling.
  7. To provide a basic understanding and knowledge of online searching for research by specific categories.
  8. To provide an awareness and knowledge of the paradoxes often found in research.
  9. To have a working knowledge of APA format based upon the most recent APA Manual.

## **OUTCOMES**

This course will help participants:

1. Dispel misconceptions about the various aspects of research.
2. Develop a theoretical, working knowledge of research methods.
3. Obtain information useful in both current and future careers regarding program evaluation.
4. Critically read and evaluate a piece of research as an integral part of professional growth and development.

## **REQUIRED TEXT**

Hock, R. R. (2009). *Forty studies that changed psychology (6th ed.)*. Upper Saddle River, NJ: Pearson Prentice-Hall.

Patten, M. L. (2007). *Understanding research methods (6th ed.)*. Glendale, CA: Pyrczak Publishing.

Pyrczak, F. (2008). *Evaluating research in academic journals (4th ed.)*. Glendale, CA: Pyrczak Publishing.

## **REQUIREMENTS**

Attendance **NOTE:** If you miss more than two (2) classes your best grade will be a "B"; in-class work cannot be made up  
Research Article "Debate" (25 points each)  
Paper: Research Article Summary (100 points) (Due 10/19)  
Paper: Research Article Critique (100 points) (Due 11/23)  
Group Project (100 points) (Due 12/14)  
Chapter Quizzes (20 points each)

## **FINAL GRADES**

I do not assign individual grades to individual assignments. Everything adds together and averages out to your final grade. If you have a driving need to know your grade, keep track of your points yourself.

If you have good attendance, good participation, and do all of the assignments asked, you can expect the grade you believe you earned.

90% and above	A
80% - 89%	B
70% - 79%	C

## **REFERENCES**

Class texts, selected handouts & research articles. A simple calculator needs to be available during most classes.

## **Class Schedule - Fall 2009**

<u>Date</u>	<u>Chapters to Read &amp; Topics</u>
Sept 14	Class Intro, Syllabus, Moodle, Expectations Text Review Grouping Pyrszak - 1& 2 (class discussion only) Present: Stats Vocabulary Stats: % Article - Hawley
Sept 21	Pyrszak - 3, Appendix A Patton - 2-4, 9-10, 12-13, 107-108 APA Formatting Present: What is research? Article Debate Topics 1-3 Stats: Frequency Distribution & % Article Evaluation Hock 1-4
Sept 28	Pyrszak - 4 Patton - 5-8 APA Formatting Article Debate 1-3 Article Debate Topics 4-6 Present: Research types Stats: Histogram & Line Graph Hock 5-8
Oct 5	Pyrszak - 5 Patton - 7-8, 44-46, 50-52, Appendix D Stats: Mean, Median, Mode, Quartiles Hock 9-12 Present: Hypothesis & Variables
Oct 12	Pyrszak - 6 Patton - 20-26 Stats: Mean, Range, Standard Deviation Present: Sampling Article Debate 4-6 Article Debate Topics 7-9

Hock 13-16

Oct 19

Pyrczak - 7, Appendix B  
Patton - 43  
Stats: T score  
Present: Stats Basic  
**Research Article Summary Due**

Oct 26

Pyrczak - 8, Appendix C  
Patton - 58-60, 27-30, 38-39  
Stats: Effect Size  
Present: Validity  
Article Debate 7-9  
Article Debate Topics 10-12  
Hock 17-20

Nov 2

Pyrczak - 9, Appendix D  
Patton - 11  
Stats: Scattergram & Regression  
Present: Program Evaluation Rsch  
Hock 21-24

Nov 9

Pyrczak - 10, Appendix E  
Patton - 53, 61-63  
Article Debate 10-12  
Article Debate Topics 13-15  
Stats: Correlation Coefficient, Meta-  
Analysis  
Hock 25-28  
Group Assignments

Nov 16

Pyrczak - 11  
Patton - 31-36  
Stats: Correlation Coefficient,  
Determination, Reliability  
Present: Reliability  
Hock 29-32

Nov 23

Pyrczak - 12  
Patton - 54  
Article Debate 13-15

Article Debate Topics 16-19  
Stats: *t* Test  
**Research Article Critique Due**

Nov 30

Pyrzczak - 13  
Patton - 54, 57  
Stats: *t* Test, Significance  
Article - Hawley  
Hock 33-36

Dec 7

Pyrzczak - closure  
Patton - 55-56  
Stats: ANOVA  
Article Evaluation  
Article Debate 16-19  
Hock 37-40

Dec 14

**Group Project Presentations**  
Take a Muchly Earned Break

## **CPSY 535: Research Article Summary**

Select an article of interest to you from the Types of Research assignment related to your program area. Summarize the article and its findings using the following guidelines. This paper averages 3–5 pages long.

**Complete citation of article in APA style. This should be the first thing on your first page of the body.**

Mission/purpose of the study.

Specific hypotheses or research questions with independent and dependent variables clearly identified (if appropriate).

Type of design.

Sampling procedures.

Does investigator describe sampling procedure(s) used?

If not identified in article, what type of sampling procedures do you think were used?

Participants.

Characteristics of the final sample, including size and make up.

What population would the author like to generalize to?

Is sample size big enough for design chosen?

Measurement methods.

What specific instruments were used?

Instruments used were operationalizations of which variables?

Reliability and validity information about the instruments?

Any information about instruments developed specifically for the study?

Tasks performed/Procedures.

What were the participants required to do?

Include a description of the experimental conditions, if appropriate.

Statistical procedures.

Need to simply list these.

Findings/Results.

Describe what the investigator discovered.

What were the specific results of statistical tests performed (include all statistical analyses)?

Discussion/Conclusions.

Was the research question answered? State the answer in your own words.

Was the original hypothesis supported or not? State answer in your own words.

How has the investigator interpreted his/her findings?

Are the results tied to the original research question(s)?

Are the results tied to other research in the field?

Does the investigator suggest a next step? What is it?

Flaws in the study? Paradox?

Unfamiliar terms.

Need to simply list these

## **CPSY 535: Research Article Critique**

The purpose of this task is for you to use skills you have acquired over the course of the term to evaluate and review an article from a professional journal. You are to use an article from the Types of Research assignment that you haven't used yet for another assignment.

Begin this critique with a short summary of the article you have chosen. It does not have to be as extensive as your first summary, just a paragraph or two summarizing the problem, results, and conclusions. A reader should be able to get a picture of your article just by reading these beginning sentences.

Although your summary provides a basic outline for your paper, the following questions serve as the specific guide to the critique. Make sure that all of the areas covered in this guide are addressed. The critique should be, on average, three to five (3–5) pages long.

**Complete citation of article in APA style. This should be the first thing on your first page of the body.**

**Overall Review** – General questions to keep in mind throughout your review.

Is the research question significant, and is the work original and important?

Have the instruments been demonstrated to have satisfactory reliability and validity?

Are the outcome measures clearly related to the variables with which the investigation is concerned?

Does the research design fully and unambiguously test the hypothesis?

Are the participants representative of the population to which generalizations are made?

Did the researcher(s) observe ethical standards in the treatment of participants?

Is the research at an advanced enough stage to make publication of results meaningful?

### **ABSTRACT & INTRODUCTION**

What is the goal/mission of the research?

What is the significance of the problem and the research?

What specific problem is being investigated by the article?

Does the introduction contain a statement of the problem?

Is this problem researchable?

What are the variables under investigation? Are these variables defined and the relationship between them described in an understandable way? Are the variables measurable as defined?

What significance does this problem have for you either personally &/or professionally as a counselor?

### **Review of Literature**

Does the review of literature provide you with enough background to understand the problem being investigated?

Is it logical and concise?

Does the review lead you to the hypotheses under investigation?

### **Hypotheses (or Statement of Problem)**

What are the hypotheses/questions and are they clearly presented?

Are these questions/hypotheses stated in the article?

Are the hypotheses testable?

How are the variables operationally defined?

Are the operational definitions specifically identified in the article (either in the introduction or in the methods section)? Does the operational definition provide a way to measure the variables?

Are the variables operationally defined in a way that makes sense and are related to the concepts and constructs under investigation?

Would you operationally define the variables in the same way?

### **METHOD**

#### **Subjects and Sampling**

What is the population being studied? Do the authors provide a description of the population?

What sampling technique was used? Was it described? Will the sampling technique used provide an unbiased sample? If not, what possible biases might result from the sample used?

Are the specific characteristics of the sample presented?

Do the authors discuss to whom the results can be generalized? Do you agree with their assessment? (Consider this: Is the accessible population used similar enough to the target population to permit generalization?)

### **Instruments**

Do the instruments used appropriately measure the variables under investigation? Are they appropriate for the sample being studied?

Is an explanation for the specific choice of instruments provided?

Is reliability and validity data provided on the instrument?

Would you use the instrument as described in the article?

### **Design**

What general research approach was used? What specific research design was used?

Is the specific research design chosen appropriate for the questions/hypotheses under investigation?

Are any ethical considerations raised or discussed?

### **Internal Validity**

Random assignment? Control groups?

Other methods were used to control for extraneous variables?

If not, what are some rival hypotheses that might have affected the results? Is this a problem for the research?

### **Procedures**

Do the procedures as described provide an accurate picture of how the

study was conducted? Are the procedures described in detail? Could you replicate the study if given the procedures as described?

Are any ethical considerations raised or discussed?

**RESULTS** – Statistical Conclusion Validity: how valid are the conclusions drawn from the data?

How did the sample size effect the results (i.e.; too small to detect a result or too large for result to have practical significance)?

Are the results presented in a concise and understandable format?

Are appropriate descriptive statistics provided?

Were appropriate statistical inferential techniques used, given the type of design and the hypotheses/questions under investigation?

Is each hypotheses tested? Are the results presented separately?

Can you tell by reading the results section if each hypothesis was supported or not?

**DISCUSSION** – Validity of Conclusions

Do the findings follow from the rest of the paper?

Is each finding discussed in relation to the original hypotheses being tested?

Are the results consistent or inconsistent with previous research? Do the authors discuss this?

Do the authors provide an understandable explanation of their results?

What conclusions do the authors draw from their findings? Do the conclusions realistically follow from their findings? Do you agree with their conclusions?

Do the authors try to generalize their results beyond the sample? Beyond their identified population? Are the generalizations made appropriate?

What are the implications of the results? Are these implications discussed? Does the discussion reflect their findings? Do you agree with the implications the authors present?

## **SUMMARY**

Summarize the major strengths and weaknesses of the article. Was there anything in the article that made you question the validity of the results (i.e.; due to the way the variables were defined and/or measured? The specific design and procedures used? The statistics used? Be specific.)?

Was the research pertinent? Does it have significance for you?

Was the research conducted and/or the findings discussed in a way that makes sense in the real world? What, if any, are the implications of the study for your personal and/or professional life? In other words, is the knowledge you've gained (hopefully) from reading this article going to impact you in any way? If yes, how. If not, why not.

## **CPSY 535 – Group Project**

Your group project will consist of a group oral presentation of a research plan, a description of a proposed study designed to investigate a particular problem. The problem to be investigated is to be of the group's choosing. You may assume that you have unlimited funds to conduct your study. Have fun.

The only *written requirement* for the project is a Bibliography of sources used to investigate the problem and design the study.

Your grade will be partially determined by your inclusion and discussion of the following elements of the plan:

- I. Introduction
  - Statement of the Problem
  - Review of Related Literature
  - Statement of Hypotheses
- II. Method
  - Subjects
  - Instruments
  - Design
  - Procedure
- III. Data Analysis
  - What particular statistical techniques are planned to be used?
- IV. Time Schedule
- V. Budget

Upon completion of your group presentation others in the class will provide anonymous written critiques. They will not be part of your grade, but are meant to be an aide.

## Article Debates

You are part of a small group (usually four members) and, as a group, you will be given a psychology-based question for which you, again as a group, will be assigned either in support of the statement or in conflict with the statement. You will be given the citation for a single older piece of research literature that explains and supports your position.

Your responsibility, as a member of the small group, is to make yourself aware of the other side's arguments and find a single piece of research that you can use to support your group's perspective. Each member of a group **must** use different research literature, no redundancy!

When it is time for the "debate," I will state to the class a few key elements of each side from the original, older research and then each group will alternate, one member at a time, giving a 3-5 minute summary of their piece of research and how it supports your position. When both groups are finished, the rest of the class can decide if there is a clear winner or if it is a draw. Afterwards we will do a short debrief of the group to allow members to share.

It is understood that you might be given a perspective that is counter to your own personal view on the matter, but it is hoped you will still embrace your team's perspective and view this as research into another perspective, giving you a critical thinking perspective of your own issues.