

**LOYOLA UNIVERSITY CHICAGO
SCHOOL OF EDUCATION**

**SINGLE-CASE RESEARCH DESIGN
RMTD 422-001 and RMTD 422-002
SUMMER SESSION B 2016**

Instructor: Gina Coffee, Ph.D.
Office: LT 1140
Office Phone: 312-915-6854
Email: gcoffee@luc.edu

Time: Online and Wednesdays, 3-6 PM
Classroom: COMM – Room 014
Office Hours: By Appointment on Wednesdays

COURSE DESCRIPTION

This course provides an in-depth study of single-case research design including assessment, experimental design, data evaluation, and writing research proposals using single-case methodology. Many of the best practices and interventions in the social, behavioral, and educational sciences have been the direct result of single-case research. Single-case designs provide educators, practitioners, and researchers with a structure for systematically collecting data within a framework that will enable them to demonstrate a functional relationship between their practices and changes in behavior. The end result is empirical support of the intervention or instructional method. As such, it is important for graduate students in disciplines such as education, psychology, and social work to have the knowledge to design, implement, and evaluate research using single-case research designs. This course will provide students with an opportunity for detailed study of single-case research designs, the logic behind these designs, and the application of these designs to intervention research. As national attention has recently been placed on the importance of single case research design and on enhancing the scientific rigor of implementation, analysis, and interpretation, this course will be beneficial for students interested in conducting applied research.

COURSE OBJECTIVES

- To describe the history of single-case research design.
- To examine the ethics of single-case research design.
- To describe the fundamental assumptions, goals, and practices of single-case research design.
- To determine appropriate strategies for collecting data for single-case research design.
- To produce and interpret graphic data displays.
- To understand the use of various single-case research designs including reversal designs, multiple baseline designs, and comparative designs.
- To produce a well-written single-case research design proposal.
- To critique published single-case research design studies.
- To examine the use of single-case research designs for evaluating the effectiveness of interventions.

IDEA OBJECTIVES

1. Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)
2. Learning to apply course material (to improve thinking, problem solving, and decisions)
3. Learning how to find, evaluate, and use resources to explore a topic in depth

IDEA COURSE EVALUATION

The course evaluation for RMTD 422 will be located online at this site: <http://luc.edu/idea/>. To access the evaluation form at the end of the semester, sign in at Student IDEA Log In.

SCHOOL OF EDUCATION CONCEPTUAL FRAMEWORK – SOCIAL ACTION THROUGH EDUCATION

The School of Education at Loyola University Chicago, a Jesuit and Catholic urban university, supports the Jesuit ideal of knowledge in the service of humanity. We endeavor to advance professional education in service of social justice, engaged with Chicago, the nation, and the world. To achieve this vision, the School of Education participates in the discovery, development, demonstration, and dissemination of professional knowledge and practice within a context of ethics, service to others, and social justice. We fulfill this mission by preparing professionals to serve as teachers, administrators, psychologists, and researchers by conducting research on issues of professional practice and social justice. The SOE's conceptual framework can be accessed online at this site:

www.luc.edu/education/mission/.

ALIGNMENT WITH NASP STANDARDS

Domain 9: Research and Program Evaluation – School psychologists have knowledge of research design, statistics, measurement, varied data collection and analysis techniques, and program evaluation methods sufficient for understanding research and interpreting data in applied settings. School psychologists demonstrate skills to evaluate and apply research as a foundation for service delivery and, in collaboration with others, use various techniques and technology resources for data collection, measurement, analysis, and program evaluation to support effective practices at the individual, group, and/or systems levels.

REQUIRED READINGS AND MATERIALS

- Kazdin, A.E. (2011). *Single-case research design: Methods for clinical and applied settings* (2nd ed.). New York, NY: Oxford University Press. ISBN: 978-0-19-534188-1.
- Purdue Online Writing Lab (APA formatting and style guide)
<http://owl.english.purdue.edu/owl/resource/560/01/>
- Computer, Internet, and webcam access.
- Access to Voice Thread: <https://luc.voicethread.com/>
- Access to LiveText: <http://www.luc.edu/education/admission/tuition/course-management-fee/>

Additional readings will be assigned by the instructor and students. Many of these will be empirical journal articles students will search for and download from online databases found at Loyola University's library site. Other required readings will be posted within units on Sakai.

RECOMMENDED READINGS

- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.
- Hayes, S.C., Barlow, D.H., & Nelson-Gray, R.O. (1999). *The scientist practitioner: Research and accountability in the age of managed care* (2nd ed.). Needham Heights, MA: Allyn & Bacon.
- Kratochwill, T. R., Hitchcock, J., Horner, R. H., Levin, J. R., Odom, S. L., Rindskopf, D. M. & Shadish, W. R. (2010). Single-case designs technical documentation. Retrieved from What Works Clearinghouse website: http://ies.ed.gov/ncee/wwc/pdf/wwc_scd.pdf.
- Kratochwill, T.R., & Levin, J.R. (Eds.). (2014). *Single-case intervention research: Methodological and data analysis advances*. Washington, DC: American Psychological Association.

- Riley-Tillman, T.C., & Burns, M.K. (2009). *Evaluating educational interventions: Single-case design for measuring response to intervention*. New York, NY: The Guilford Press.
- Shadish, W.R., Cook, T.D., & Campbell, D.T. (2001). *Experimental and quasi-experimental designs for generalized causal inference* (2nd ed.). Boston, MA: Houghton Mifflin Company.

METHODS OF INSTRUCTION

This course will consist of online lectures and on-campus group discussions, group activities, and student presentations. Students are expected to read the assigned materials and to actively participate in discussions and class activities.

ACADEMIC HONESTY, ACCESSIBILITY, CONCEPTUAL FRAMEWORK, ETHICSLINE REPORTING HOTLINE, AND ELECTRONIC COMMUNICATION POLICIES AND GUIDELINES

<http://luc.edu/education/syllabus-addendum/>

DIVERSITY

In concert with the mission statement for the SOE, faculty, academic activities, and learning environments will be sensitive to, and driven by, individual, cultural, social and economic diversity awareness and respect.

DISPOSITIONS

Professional demeanor, suitability for practice and attitude with which the candidate approaches others, learning instruction and the profession will be assessed with the consequences of such conduct influencing successful course completion and program continuation. Dispositions will be assessed each semester according to the rubrics available in the Student Handbook. The purpose of assessing dispositions including, professionalism, fairness and the belief that all students can learn are important considerations in individual professional development.

COPYRIGHT POLICY

Copyright law was designed to give rights to the creators of written work, artistic work, computer programs and other creative materials. The Copyright Act requires that people who use or reference the work of others must follow a set of guidelines designed to protect authors' rights. Unfortunately, copyright law is complex and too often incomprehensible; that does not, however, excuse users from following the rules. The safest practice is to remember (1) to refrain from distributing works used in class (whether distributed by the professor or used for research) that are copyright protected and (2) that any research or creative work should be cited in alignment with APA standards. For Loyola University Chicago's copyright resources, please access: www.luc.edu/copyright/index.shtml.

PLAGIARISM

It is important to reiterate the policy of Loyola University regarding plagiarism. The following is an excerpt from information shared by The English Department and should serve as a reminder to all students.

“Definition:

Plagiarism is the intentional or unintentional appropriation of ideas, language, or work of another without sufficient acknowledgement that the material is not one's own. Although, it is generally recognized that everything an individual has thought has probably been influenced to some degree by the previously expressed thoughts and actions of others and that therefore no thought can be purely original, such influences are general ones, affecting an entire way of seeing things and expressing

thoughts. Plagiarism, however, involves the taking of specific words or ideas of others without proper acknowledgement.

Some students seem to believe that there are different degrees of plagiarism, some of which are not as bad as others...(I) wish to make clear that there are no distinctions between...

1. Copying from a published source without proper documentation.
2. Purchasing a pre-written paper.
3. Letting someone else write a paper for you or paying someone to do so,
4. Submitting as your own someone else's unpublished work, either with or without permission."

If you have additional questions, I highly recommend the following interactive tutorial about what is and what is not plagiarism at <http://www.indiana.edu/~istd/>. In addition, I reserve the right to use the TurnItIn program (http://turnitin.com/en_us/support/help-center) for any written assignment.

CLASS COMMUNICATION

Sakai will be the main method of communication with students enrolled in this course. Because Sakai uses your Loyola computer account, students are responsible for making sure that their account is in good working order. Also, students are responsible for checking their Loyola account for emails related to this class. If you have a personal email you would rather use, you may forward emails from your student account to the personal account.

Given that opportunities for asking general course questions can be challenging in a blended class, I have created a forum on Sakai for "General Course Questions." This is the place for you to ask questions about the syllabus, assignments, technology, etc. If you have a question, it is likely other students in the class have the same question. Therefore, when you have a question about class, first consider posting it in the "General Course Questions" forum. If questions that are best answered in this forum are emailed to the course instructor, the instructor will redirect you to post the question in the forum instead. The instructor will check this forum and respond to new posts daily.

TECHNOLOGY

Technology is an essential tool for developing one's own professional skills and for completing any degree program. Given that this is a blended course, there are greater technology demands/expectations than other courses. In addition to demonstrating proficiency in word processing (including creating tables, charts, and diagrams), communicating via Loyola GroupWise e-mail and Sakai, downloading Microsoft Word and Acrobat Reader files, and performing article searches via the library databases, you will be expected to use additional technologies such as Voice Thread (<https://luc.voicethread.com/>), Panopto, and/or Adobe Connect. Instructions for using these technologies will be provided. However, it will be up to you to practice and master use of these technologies before an assignment is due. If you have questions regarding the use of technology, please post them to the "General Course Questions" forum.

COURSE REQUIREMENTS & EVALUATION PROCEDURES

Without exception, assignments must be completed on time and submitted by the times and dates indicated on the course schedule below. Ten percent of the total points possible will be deducted for each day past the due date/time.

All written assignments (unless otherwise specified) must be typewritten and conform to the writing style and formats specified in the Publication Manual of the American Psychological Association, 6th edition.

Course Requirement/Assignment	Due Date	Points Possible
Professional Behavior and Communication	Ongoing	5
In-Class Applications	Ongoing	15
Unit Papers (3 total; 5 points each)	Ongoing	15
Article Critique (team)	Ongoing	20
CITI Training	W 7/27	10
Research Proposal	F 8/12	35
Total Points Possible		100

1. Professional Behavior and Communication. Points for professional behavior and communication are earned by demonstrating appropriate communication and behavior throughout the duration of this course. Examples of professional behavior include preparation for each class session; timely completion of assignments; prompt communication; active participation such as offering constructive comments to classmates, etc.; and respectful collaboration and communication with classmates and instructor. Professional behavior and communication points are easily earned by being respectful of others and demonstrating the highest academic integrity.

Class attendance is mandatory. If circumstances dictate you must miss a class meeting, or you have a day when you have to arrive late to class, alert the instructor ahead of the class meeting.

2. In-Class Applications. Applications of concepts learned in the course will be completed during class sessions throughout the semester.

3. Unit Papers. You will complete 3 unit papers. Papers will be no longer than 1 single-spaced page and will serve as an opportunity to demonstrate comprehensive preparation for class sessions and understanding of the course material (e.g., lectures, readings, additional resources). The papers will also serve as an opportunity to share with the instructor any lingering questions you might have after having carefully prepared for class sessions. Within each paper, first respond to the prompt provided by the instructor. Then, present 1-2 questions you have about the material in the units.

4. Article Critique. In teams, you will lead the class in a discussion/article critique once during the semester. First, you will choose and submit for approval an empirical study using the design you selected (e.g., ABAB) that has been published in a refereed journal. This study must have been published within the last year (no earlier than July 2015). Submit a PDF of the article to the instructor for consideration at least 1 week prior to your discussion. Do not begin the assignment until the article has been approved. Once the instructor approves the selected study, the instructor and all class members will read the article in preparation for the discussion. Finally, you will lead the class in a discussion

critiquing the selected study. You may structure the discussion in any way you choose (within reason). It will last 45 minutes and may include a PowerPoint or Prezi presentation, activities, whole group discussion, etc. The product of this assignment is not a written article critique. Rather, you will be evaluated on how well you facilitate a critique of the study – thus, demonstrating your ability to critique an empirical study implementing a single-case research design. Your classmates will be evaluated by their engagement and contributions to the discussion you lead.

5. **CITI Training.** Students will complete the Collaborative IRB Training Initiative (CITI) course.

6. **Research Proposal.** The capstone project for the course is a research proposal. You will work individually to develop at least one research question, review the literature, and develop a plan for examining the question(s). Because this is a proposal, you will use future tense in your writing. Research proposal drafts will not be reviewed by the instructor. Throughout the course, however, students will obtain feedback on the development of their research proposal through in-class applications.

As needed, scoring rubrics and guidelines for assignments will be posted on Sakai.

Final course grades will be assigned as follows:

Total Points Earned	%	Grade
93-100	93-100	A
90-92	90-92	A-
87-89	87-89	B+
83-86	83-86	B
80-82	80-82	B-
77-79	77-79	C+
73-76	73-76	C
70-72	70-72	C-
67-69	67-69	D+
60-66	60-66	D
<60	<60	F

FINAL NOTE . . .

Your role in this course is to come to class prepared to actively discuss the readings and participate in class. I am here to help you in any reasonable way I can. I encourage you to make an appointment with me sooner, rather than later, if you are having difficulty with the course material. I am more than happy to meet with you at a mutually agreeable time. The best way to reach me is through email.

TENTATIVE COURSE SCHEDULE

Course schedule is tentative and subject to change. Changes will be announced.

This course consists of 10 units. Lectures will be posted by 11:55pm CST on the dates indicated. View the unit lectures, complete the required readings, study any additional materials, and complete/submit the assignments by 3pm on the indicated class dates. The research proposal is due by 11:55pm CST on 8/12.

Unit	Lecture Posted	Class Session	Topics	Readings	Assignments Due	Due Date
		W (7/6)	Course Overview		Immediately begin thinking about an area of interest for your research proposal.	
1	Th (7/7)	W (7/13)	Introduction Underpinnings of Scientific Research	Chapters 1 and 2	<i>Email ABAB article PDF for article critique to instructor for approval.</i>	W (7/13)
2	Sun (7/10)	W (7/13)	Assessment	Chapters 3, 4, and 5 Journal Readings		W (7/13)
3	Th (7/14)	W (7/20)	Introduction to Single-Case Research and ABAB Designs	Chapter 6 Journal Readings	ABAB Critique (2)	W (7/20)
4	Sun (7/17)	W (7/20)	Multiple-Baseline Designs	Chapter 7 Journal Readings ABAB Student-Selected Articles	Unit Paper A <i>Email MBD article PDF for article critique to instructor for approval.</i>	W (7/20)
5	Th (7/21)	W (7/27)	Changing-Criterion Designs	Chapter 8 Journal Readings MBD Student-Selected Articles	MBD Critiques (2) CITI Training <i>Email CCD article PDF for article critique to instructor for approval.</i>	W (7/27)
6	Sun (7/24)	W (7/27)	Multiple-Treatment Designs	Chapter 9 Journal Readings	Unit Paper B	W (7/27)

7	Th (7/28)	W (8/3)	Additional Design Options	Chapter 10 Journal Readings CCD Student-Selected Articles	CCD Critiques (2) <i>Email MTD article PDF for article critique to instructor for approval.</i> <i>Email ADO article PDF for article critique to instructor for approval.</i>	W (8/3)
8	Sun (7/31)	W (8/3)	Quasi-Single-Case Experimental Designs	Chapter 11 Journal Readings	Unit Paper C	W (8/3)
9	Th(8/4)	W (8/10)	Evaluation	Chapters 12 and 13		W (8/10)
10	Sun (8/7)	W (8/10)	Perspectives and Contributions	Chapters 14 and 15 MTD Student-Selected Articles ADO Student-Selected Article	MTD Critique (2) ADO Critique (1)	W (8/10)
			Research Proposal		Research Proposal	F (8/12)

