

RMTD 400: Introduction to Research Methodology

Fall 2011

Instructor: Ryan Williams, MA
Email: rtwillia@gmail.com
Course time: W, 7-9

Office: Lewis Tower, 1022C
Office hours: By appointment

Required Text:

Johnson, R. B. & Christensen, L. (2012). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). Boston, MA: Sage Publications.

Additional readings will be provided by the instructor and posted on Blackboard.

Course Description:

This course will introduce the concept of inquiry and various research methods used in education, psychology, and other social sciences. The course will introduce the three main methods of inquiry: Quantitative, Qualitative and Mixed Methods. Students will be able to critically analyze research and draft a research proposal.

School of Education's Conceptual Framework:

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 the 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; and by partnering with schools and community agencies to enhance life-long learning in the Chicago area. This course will equip students with the knowledge, skills of inquiry, and ethics necessary to be professional and socially just researchers. The case studies used in this course illustrate how educational research can illuminate issues of social justice. In addition, the research methods used in this course also add to students' ability to understand the diversity of perspectives that researchers use to address social problems.

Diversity:

In concert with the conceptual framework for the School of Education, faculty and students will be expected to show respect and sensitivity to individual, cultural, social, and economic diversity. In this spirit, as we look at questions of organizational theory, instructional leadership and student achievement, it will be our challenge to create will and capacity within our schools so that all educational stakeholders can fulfill the promise of education.

Technology:

The information pertinent to school organizations and instructional leadership constantly changes. Therefore, throughout the course, students will develop and practice skills in locating and using on-line resources critical to these topics.

Academic Honesty

Academic honesty is an expression of interpersonal justice, responsibility and care, applicable to Loyola University faculty, students, and staff, which demands that the pursuit of knowledge in the university community be carried out with sincerity and integrity. The School of Education's Policy on Academic Integrity can be found at:

http://www.luc.edu/education/academics_policies_integrity.shtml. For additional academic policies and procedures refer to:

http://www.luc.edu/education/academics_policies_main.shtml

Accessibility

Students who have disabilities which they believe entitle them to accommodations under the Americans with Disabilities Act should register with the Services for Students with Disabilities (SSWD) office. To request accommodations, students must schedule an appointment with an SSWD coordinator. Students should contact SSWD at least four weeks before their first semester or term at Loyola. Returning students should schedule an appointment within the first two weeks of the semester or term. The University policy on accommodations and participation in courses is available at: <http://www.luc.edu/sswd/>

Harassment (Bias Reporting):

It is unacceptable and a violation of university policy to harass, discriminate against or abuse any person because of his or her race, color, national origin, gender, sexual orientation, disability, religion, age or any other characteristic protected by applicable law. Such behavior threatens to destroy the environment of tolerance and mutual respect that must prevail for this university to fulfill its educational and health care mission. For this reason, every incident of harassment, discrimination or abuse undermines the aspirations and attacks the ideals of our community. The university qualifies these incidents as incidents of bias.

In order to uphold our mission of being Chicago's Jesuit Catholic University-- a diverse community seeking God in all things and working to expand knowledge in the service of humanity through learning, justice and faith, any incident(s) of bias must be reported and appropriately addressed. Therefore, the Bias Response (BR) Team was created to assist members of the Loyola University Chicago community in bringing incidents of bias to the attention of the university. If you believe you are subject to such bias, you should notify the Bias Response Team at this link: <http://webapps.luc.edu/biasreporting/>

Course Objectives:

As a result of this course, students will be able to:

- Discuss the philosophical underpinnings of educational research and describe the applications of the scientific method
- Explain the difference between quantitative, qualitative and mixed methods research paradigms
- Explain the difference between various research methods used in educational research
- Discuss the relationships between theory, research objective, research question, design, measurement and analysis
- Select a research topic, state a research objective and research question and propose a method of study to answer the question
- Conduct a review of relevant literature that synthesizes the knowledge from several research studies around the central idea or research questions and identifies possible gaps in the literature

- Analyze and evaluate the research questions, design, ethics and conclusion of existing educational research
- Describe and determine the correct use of different sampling techniques to answer a research question
- Describe the measurement and data collection procedures including instrumentation and methods for determining reliability and validity. Determine the correct data collection techniques to answer a research question.
- Describe the types of quantitative and qualitative validity and methods for establishing them
- Discuss the logic of experimental control
- Discuss the descriptive statistical methods for representing data
- Discuss the hypothesis testing and for testing significance
- Discuss the legal and ethical issues in educational research

Evaluation:

Participation:	
CITI completion:	15 points
Group discussions:	15 points
Assignments:	
Three total (each 25):	75 points
Article critique:	
One total:	50 points
Quiz:	
Three total (drop 1, each 10)	20 points
Proposal:	
Research proposal:	100 points
<u>Presentation:</u>	<u>25 points</u>
Total:	300 points

Assignment details:

CITI course: You can find the CITI course and a detailed description of how to participate at this website: http://www.luc.edu/irb/irb_XIX.shtml

Group discussion: During the second class, you will form groups of approximately 2-3 students. Every few classes you and your group members will discuss a topic.

Attendance: Please attempt to attend every class. If you will not be attending, for medical or other reasons, please let me know. Points will be awarded for group discussion.

Assignments:

Assignment 1: Research questions- Following the layout that J&C provide, you will create one research questions to use for your research proposal. You can find more information on how to present the research question on page 74-78.

Assignment 2: Research Ethics (CF8) - Assignment details at the end of this syllabus.

Assignment 3: Bibliography- To help you collect journal articles, you will find and complete an annotative bibliography of ten research articles. These ten articles should be articles that you will use in your research proposal.

Article critique (CF4) - You will complete one critical examinations of research. A detailed description of the types of information can be found at the end of this syllabus.

Quiz:

To ensure total understanding of the assigned reading material, three in-class quizzes will be given. The assessments will last no longer than 10-15 minutes. Material will cover the previous three lectures. Although the quizzes will be open-book/open-note, you will only have 30 seconds to answer each question. The lowest of the three quiz scores will be dropped.

Proposal:

Research proposal: The largest portion of your points awarded for this course will derive from the research proposal. This assignment will be discussed at length during the course. It will consist of the first three chapters of a basic research proposal or thesis/dissertation. Each assignment will assist in the preparation of this proposal. A detailed description of the types of information I will be looking for will be provided a few classes into the summer.

Presentation: The final class session will be devoted to a brief presentation of your research proposal. One of the most important pieces of research is the ability to disseminate; it will be your task to describe the process and your proposal. More detail will be provided as the course progresses.

Course Schedule:

Date: August 31

Topic: Description of course / Introduction to Research / What is Education Research?
Read for class: Johnson & Christensen (J&C) ch. 1
Due in class: Read chapter
Discussion:

Date: September 7

Topic: Research questions / Types of Research / Literature Reviews (intro)
Read for class: J&C ch. 2 & 3 (article 1)
Due in class:
Discussion: Form semester groups

Date: September 14

Topic: Writing a research proposal / Research ethics
Read for class: J&C- ch 4 & 5
Due in class: Assignment 1 & CITI assignment
Discussion: Forming research questions

Date: September 21

Topic: Data collection
Read for class: J&C- ch. 8
Due in class:
Quiz 1

Date: September 28

Topic: Sampling
Read for class: J&C- ch. 8 & p.223-239
Due in class:
Discussion:

Date: October 5

TBD Library Research

Date: October 12

Topic: Measurement and Psychometrics
Read for class:
Due in class: Assignment 2 (CF8)
Discussion:

Date: October 19

Topic: Threats to research validity / Literature Reviews (conclusion)
Read for class: J&C- ch. 10 & 3
Due in class:
Discussion:

Date: October 26

Topic: Experimental design / Quasi-experimental design

Read for class: J&C- ch. 11 & p.328-338 (article 2)
Due in class:
Discussion: Understanding the literature review

Date: November 2

Topic: Single-case designs
Read for class: J&C- ch. 13 & p.341-349 (article 3)
Due in class:
Discussion:
Quiz 2

Date: November 9

Topic: Qualitative design / Mixed methodology (article 4)
Read for class: J&C- ch. 14 & p.445-449
Due in class: Assignment 3
Discussion: Critiquing education research

Date: November 16

Topic: Descriptive statistics / Reviewing the Proposal
Read for class: J&C- ch. 17 & p.502-522
Due in class: Article Critique
Discussion: Describe methodology

Date: November 23

THANKSGIVING BREAK – NO CLASS

Date: November 30

Topic: Constructing a questionnaire
Read for class: J&C- ch. 7
Due in class:
Discussion: Discuss second article
Quiz 3

Date: December 7

Topic: “Where to go from here?”
Read for class: TBD
Due in class:
Discussion:

Date: December 14

Topic: Presentations & Proposals
Read for class:
Due in class: Research proposal and presentation
Discussion:

Research Methodology Core Assessment

Course: RMTD 400 – Introduction of Research Methodologies
Core Assessment: Essay on research ethics
CF Standard: 8

For this core assessment, the student will read an article or case study provided by the instructor that addresses an aspect of research ethics. One example is the following:

Please read the New York Times Magazine article from November 28, 1999, entitled, "The biotech death of Jesse Gelsinger." In a 2-3 page essay, please address the following questions.

a. How would you assess the ethics of this study given the Belmont Report principles of respect for persons, beneficence and justice? This report can be read online at

<http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.htm>

b. A major criticism of the trial that resulted in Jesse's death centers on the informed consent procedures. What is your assessment of the informed consent procedures? If you were in Jesse's place, what information and procedures would you demand before you volunteered for a trial?

c. The medical ethicist of this research project would not allow infants as subject in this experiment because parents could not freely give consent knowing that their infant had only a few hours to live. What is your opinion of this decision? How would you argue your case?

Core Assessment Rubric

Conceptual Framework Standard • Target • Acceptable • Unacceptable • • CF8:

Candidates demonstrate an understanding of the major principles of research ethics in research with human subjects. • The essay clearly represents an understanding of the principles of the Belmont report: respect for persons, beneficence, and justice. The essay assesses the ethical issues present in the case study, and provides a clear and well-supported argument for its claims. • The research article critique demonstrates a good understanding of the principles of the Belmont report: respect for persons, beneficence, and justice. The essay addresses some of the ethical issues present in the case study, and provides some support for its claims. • The research article critique presents a limited understanding of the principles of the Belmont report: respect for persons, beneficence, and justice. The essay partially addresses the ethical issues present in the case study, and provides little or no support for its claims. • •

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Research Methodology Core Assessment

Course: RMTD 400 – Introduction of Research Methodologies

Core Assessment: Critical analysis of a research study

CF Standard: 4

For this core assessment, each student will identify a research article related to an area of the student's interest. The purpose of this assessment is to demonstrate an understanding of the research methodology used in the study, and assess the results. Students are expected to include both a summary and a critical review of the article that discusses elements, such as the following:

1. Purpose of the study
2. Methodology (e.g., case study, ethnography, grounded theory, phenomenological study)
3. Research methods (e.g., interviews, observations, document analysis)
4. Sampling (e.g., purposive)
5. Role of the researcher
6. Data interpretation and analysis

Core Assessment Rubric Conceptual Framework

Standard • Target • Acceptable • Unacceptable • • CF4: Candidates demonstrate an understanding of the diversity of research methodologies used in educational research. • The research article critique clearly represents an understanding of the research methodology employed in the study. The research paper weaves together the summary and analysis of the article supporting claims with sufficient evidence from the article. • The research article critique demonstrates a good understanding of the research methodology used in the study. The research paper attempts an integration of the summary and analysis with some evidence provided for claims. • The research article critique presents a limited understanding of the research methodology used in the study. The research paper does not successfully integrate the summary and analysis of the article, and/or provides little supporting evidence for claims. • •

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