

RMTD 400: Introduction to Research Methodology

Spring 2011

Thursdays, 700 – 930
421 Corboy Law Center

Instructor: Terri D. Pigott, Ph.D.
Email: tpigott@luc.edu

Office: Lewis Tower, 1140C
Office hours: By appointment

Teaching Assistant: Joshua R. Polanin, M.A.
Email: jpolanin@luc.edu

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

Required Text:

Johnson, R. B. & Christensen, L. (2010). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). Boston, MA: Sage Publications.

Additional readings will be provided by the instructor.

Course Description:

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

Conceptual Framework Standards Assessed in this Course:

CF4 – Candidates demonstrate skills that will enable them to work effectively with diverse clients.

CF8- Candidates apply ethical principles in professional decision-making

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:	20 points
Attendance:	15 points
Assignments:	
Four total (each 25):	100 points
Article critique:	
Two total (each 50):	100 points
Proposal:	
Research proposal:	125 points
Presentation:	25 points
Total:	400 points

Livertext:

Two of your assignments will be used for School of Education Conceptual Framework assessments (CF4, CF8; discussed below) and are to be posted to your student Livertext account. All School of Education student's should have an account; if you do not or need help finding out if you have one, please see one of the instructors.

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 first 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 us know.

Assignments:

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

Assignment 4: Methodology- To advance the proposal further, you will create an outline of your methodology. It can be either basic outline form or written formally. Either way, you will need to provide enough information to convey the purpose and methods of your research proposal.

Article critique: You will complete two critical examinations of research. A detailed description of the types of information can be found at the end of this syllabus. Please note, the second article critique will constitute the requirement for core assessment 4.

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 toward the end of the course.

Course Schedule:

Date: January 20th

Topic: Description of course / Introduction to Research / What is Education Research?

Read for class: Johnson & Christensen (J&C) ch. 1; Article 1

Due in class:

Discussion: Form semester groups (2-3)

Date: January 27th

Topic: Types of research / Research questions / Literature reviews

Read for class: J&C ch. 2 & 3; Article 2

Due in class:

Discussion:

Date: February 3rd

Topic: Writing a research proposal / Research ethics

Read for class: J&C- ch 4 & 5

Due in class: CITI course

Discussion: Difficulties of finding research questions

Date: February 10th

Topic: Library Information Session & Catch-up (if necessary)

Read for class:

Due in class: Assignment 1

Discussion:

Date: February 17th

Topic: Experimental design / Quasi-experimental design

Read for class: J&C- ch. 11 & p.317-330; Article 3

Due in class:

Discussion:

Date: February 24th

Topic: Qualitative design / Mixed methodology

Read for class: J&C- ch. 14 & p.445-449; Article 4

Due in class: Assignment 2 (CF8)

Discussion:

Date: March 3rd

TBA: Tentative Fill-in & Catch-up

Date: March 10th

No Class --- Spring Break

Date: March 17th

Topic: Non-experimental design / Single-case design

Read for class: J&C- ch. 13 & p.331-339

Due in class: Assignment 3

Discussion:

Date: March 24th

Topic: Critiquing research / Validity of results

Read for class: J&C- ch. 10; Article 5

Due in class:

Discussion:

Date: March 31th

Topic: Data collection / Sampling

Read for class: J&C- ch. 8 & p.217-239

Due in class: Article Critique 1

Discussion:

Date: April 7st

Topic: Descriptive and Inferential statistics

Read for class: J&C- ch. 17 & 18

Due in class: Assignment 4

Discussion: Describe methodology

Date: April 14th

Topic: Constructing a questionnaire

Read for class: J&C- ch. 7

Due in class: Article Critique 2 (CF4)

Discussion: Discuss second article

Date: April 21th

No Class --- Easter Break

Date: April 28th

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.

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.