

Inquiry 1
15:255:603
3 Credits

Tuesdays 4:50-7:30pm
GSE 25A, College Avenue Campus

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Office Hours: by appointment	Prerequisites or other limitations: A student must be admitted to the EdD program
Mode of Instruction: <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Seminar <input type="checkbox"/> Hybrid <input type="checkbox"/> Online <input type="checkbox"/> Other	Permission required: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Directions about where to get permission numbers: from the instructor

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentations: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Learning Goals

The goal of the Rutgers Ed.D. program is to create educational leaders who are agents of change. Inquiry 1 specifically addresses the Ed.D. program goal of helping students to produce and use research efficiently and effectively to solve problems of practice.

To achieve this goal, students will:

- Learn to find, evaluate, summarize, and apply the research literature relevant to a problem of practice.
- Identify a problem of practice and pose researchable questions that address this problem.
- Situate the problem of practice in relation to relevant research literature.
- Outline a plan for collecting data with a suitable sample to answer the research questions and know how to use the procedures outlined.
- Design and use different data collection tools.
- Explain what makes for a quality study of a problem of practice
- Continue to refine their academic writing skills in relation to designing research studies to answer problems of practice.

Course Catalogue Description

The purpose of this class is to help students gain an understanding of the design components that go into any inquiry including the capstone/dissertation project they will be completing in this program. A second purpose is to expose students to the range of inquiry tools that they can use to solve problems of practice and to provide opportunities for them to practice and test out some of these tools. In doing so, students will learn that tools like observation and interviewing can be both qualitative and quantitative and choosing how much structure to use depends on the problem being studied.

Other Description of Course Purposes, Context, Methods

This class is the first of two inquiry classes in the Ed.D. core and provides an introduction to research design and the various methodologies (quantitative, qualitative and mixed methods) that can be used by change agents to investigate problems of practice. The second inquiry class centers on the process of implementing research in sites of practice and how to analyze and communicate findings to a range of stakeholders.

Textbook & Course Materials

Gall, M. D., Gall, J. P., & Borg, W. R. (2015). *Applying educational research: How to read, do, and use research to solve problems of practice*. U.S.A.: Pearson.

Required Readings

Readings are posted in “resources” by week on the Sakai course webpage. These are:

A brief introduction to sampling. Retrieved 8/3/2015 from

http://psychology.ucdavis.edu/rainbow/html/fact_sample.html

Cohen, L., Manion, L., & Morrison, K. (2007). Observation. In L. Cohen, L. Manion, K. Morrison, *Research methods in education* (6th Ed., pp. 396-413). New York: Routledge.

Creswell, J. W. (2014). The selection of a research approach. In J. W. Creswell, *Research design: Qualitative, quantitative and mixed methods approaches* (4th Ed.) (pp. 3-24). Thousand Oaks, CA: Sage.

Creswell, J. W. (2014). The use of theory. In J. W. Creswell, *Research design: Qualitative, quantitative and mixed methods approaches* (4th Ed.) (pp. 51-76). Thousand Oaks, CA: Sage.

Grant, A., Kinnersley, P., & Field, M. (2012). Learning contexts at two UK medical schools: A comparative study using mixed methods. *BMC Research Notes*, 5(153). Retrieved 8/12/2014 from <http://www.biomedicalcentral.com/1756-0500/5/153>.

Hubbard, L., & Datnow, A. (2005). Do single-sex schools improve the education of low income and minority students: An investigation of California’s public single gender academies. *Anthropology and Education Quarterly*, 36(2), 115-131.

Lauer, P. (2004). A policymakers’ primer on educational research: How to understand, evaluate and use it. Retrieved 8/3/2015 from <http://www.ecs.org/html/educationissues/research/primer/researchsays.asp>

Lawton, B., Brandon, P., Cicchinelli, L., & Kekahio, W. (2014). Logic models: A tool for designing and monitoring program evaluations.

Lee, V.E., & Bryk, A.S. (1986). Effects of single-sex secondary schools on student achievement and attitudes. *Journal of Educational Psychology*, 78(5), 381-395.

Lemons, C. J., Fuchs, D., Gilbert, J. K., & Fuchs, L. S. (2014). Evidence-Based Practices in a Changing World Reconsidering the Counterfactual in Education Research. *Educational Researcher*, 43(5), 242-252. doi: 0013189X14539189.

Merriam, S. (2009). Dealing with validity, reliability, and ethics. In S. Merriam (2009). *Qualitative research: A guide to design and implementation* (pp. 209-235). San Francisco, CA: Jossey Bass.

- Merriam, S. (2009). Mining data from documents. In S. Merriam (2009). *Qualitative research: A guide to design and implementation* (pp. 139-164). San Francisco, CA: Jossey Bass.
- Patton, M. Q. (2002). Qualitative interviewing. In M. Q. Patton (2002). *Qualitative research and evaluation methods* (3rd. Ed.) (pp. 339-427). Thousand Oaks: Sage.
- Schanzenbach, D. W. (2014). *Does class size matter?* Boulder, CO: National Education Policy Center. Retrieved 8/26/2015 from <http://nepc.colorado.edu/publication/does-class-size-matter>.
- Walonick, D. (2004). *Survival statistics: Designing and using questionnaires*. Bloomington, MN: StatPac.

Course Assignments and Grading

Grading and Assignments

Your course final grade will be based on

Activity	Total points
Attendance, participation	5 points
CITI course completion	5 points
Research article critique	20 points
Designing and collecting interview/survey task	30 points
Research Plan	<u>40 points</u>
	100 points

Class participation (5%)

Class participation is crucial to your understanding and application of course content. You are expected to come to class prepared to discuss assigned readings and to participate in class activities. You will be graded on your individual contributions. We understand that you are busy professionals but encourage you to try and attend every class session. If you must miss a class please make sure that you talk to a fellow student or reach out to one of us to help you catch up on what was discussed in your absence. If you miss more than one class during the semester without a bona fide reason your grade for the course will automatically be reduced by 2 points per class.

CITI Certification (5%)

All students are expected to go online to www.citiprogram.org and complete the Collaborative Institutional Training Initiative (CITI) education basic course This program focuses on research ethics and important procedures that need to be followed to protect human subjects involved in research projects. Directions for registering and completing the test are available at <http://rbhs.rutgers.edu/hsp/education/>

Proof of passing the CITI basic course should be uploaded into assignments by September 20, 2016.

Research Article Critique (20%)

You are to critique the study (available in SAKAI resources) by:

Grant, A., Kinnersley, P., & Field, M. (2012). Learning contexts at two UK medical schools: A comparative study using mixed methods. *BMC Research Notes*, 5(153). Retrieved 8/12/2014 from <http://www.biomedcentral.com/1756-0500/5/153>.

Your 5 page **critique** of the research study will first identify the topic and argument of the study (that is, the question or problem it addresses). In addition, your critique will **explain** and **evaluate**: the literature review and theoretical framework, the methods used by the authors to conduct the study, and the key findings and conclusions. Please note you are not reiterating what is reported in the research study but explaining its strengths and weaknesses. Questions you should be asking yourself as you read and write your critique include: Do the author(s) provide enough support for their argument? Do they explore the topic in enough depth? Are the research questions in keeping with the stated purposes? Is the literature review organized in a way that makes sense to the reader and supportive of the argument being made? Is the research reviewed of adequate quality? Is there a body of literature that could be reviewed that hasn't been, and why? What is the research design and methodological approach? Do the design and methods make sense given the research purposes? How were data analyzed, and what were the primary findings? To what extent are the findings in the research supported by the data analysis? Do the authors explain the strengths and weaknesses of the study? Are the conclusions drawn and recommendations for future research grounded in the literature reviewed and findings of the study?

Due: Week 4 Friday September 30, 2016

Interviewing/Surveying Data Collection and Reflection Paper (20%)

This assignment provides an opportunity for you to practice designing interview/survey protocols and to test them out with a sample as part of an evaluation study. We will work with Professor Steve Barnett and the leadership team of the Center for Enhancing Early Learning Outcomes (CEELO), to design and implement a survey/interview study to help them evaluate the effectiveness of their technical assistance activities. CEELO is the U.S. Department of Education's comprehensive technical assistance center for early learning (birth to age 8) charged with supporting state education agencies. Working in research groups/teams, students will administer a survey and conduct qualitative interviews with a small group of users of CEELO's technical assistance.

At the conclusion of data collection students are to write up a report on: a) the purposes and research questions guiding the study, b) the study design including the sample and data collection processes employed, c) critical reflections on the methodology and the way it was

employed, d) references, and e) an appendix that includes field notes taken at the time of data collection and any other raw data.

The reflective part of your paper should include:

- What you learned about methodology and what you would do differently (i.e. sampling design, design of interview questions, procedures of data collection) to ensure the data set was more helpful in answering the research questions.
- References to class readings and lectures to support the points you make about methodology.

Your report should be between 10-12 pages excluding the appendix.

Please note that we will work on aspects of this assignment in class. The data collected will be used in Inquiry 2 to help you learn about procedures for data analysis and how to communicate research findings to stakeholders.

Interview/surveying data collection and reflection paper due week 13, December 6th, 2016

Research Plan (40%)

This is the main assignment for the class and it is divided up into mini-assignments to be completed periodically throughout the class so that you receive timely and useful feedback. You will submit a more complete and sophisticated version at the culmination of Inquiry 2 so choose your problem wisely.

Over the course of the class you will draft a research plan of 20-25 pages to investigate a problem of practice in your workplace. A problem of practice research plan describes a challenge in educational practice, seeks empirically to investigate the challenge and/or test solution(s) to address the challenge. According to the Carnegie Project on the Education Doctorate (2014), a problem of practice is “a persistent, contextualized, and specific issue embedded in the work of a professional practitioner, the addressing of which has the potential to result in improved understanding, experience, and outcomes.”¹

Research plans that investigate or test solutions to a challenge in educational practice typically formulate research questions that in some way ask “What’s going on here?” or “What happens when I, we, or they do...?” Your research plan will include the following sections:

A. Problem Statement and Research Questions

- State the purpose of your study by describing the problem in relation to research literature and the context in which you work to show why it is a problem that needs to be addressed.

¹ Carnegie Project on the Education Doctorate (2014). Design concept definitions. Retrieved from <http://cpedinitiative.org/design-concept-definitions>

- Identify the research questions that will guide your study. Research questions should reflect the methodological orientation you are using. Qualitative research questions are usually stated as what or how questions, quantitative questions tend to be stated as hypotheses. Mixed methods will have a blend of question types.
- Make sure to operationalize or define any constructs/variables

B. Literature Review

- Write your review as a survey and synthesis of relevant literature (at least 25 empirical studies) informing your problem. It should be clear how all of the studies you identify for review are connected to the question or topic addressed in your problem statement.
- Include the procedures you followed to identify the literature including search engines used, key words, types of resources searched, and criteria for inclusion and exclusion.
- Group the studies into categories/themes.
- Describe each theme or category of studies by analyzing and synthesizing the information they provide. This description should look across studies not just list them and consider the theoretical perspectives and empirical methodologies employed, strengths and weaknesses, findings, agreements and disagreements, and implications for your study.
- Provide a concluding section that summarizes what the research as a whole leads you to believe about where there is agreement and disagreement around your problem of practice. What are the strengths and weaknesses of the literature as a whole? How does the literature inform your study?

C. Theory Based Logic Model

- A theory based logic model helps tease apart the many different variables and/or factors related to the problem and informs the methodology to be used.
- In your research plan you must explain the theoretical framework/model that guides your study. This theory may be a formal theory like Vygotsky's theory of human development or it may be a blending of concepts and theories that you put together to frame your problem. The key assumptions underpinning your theory and the relations between these key assumptions should be explained.

D. Methodology

- **Research Design.** Specify the research design including a justification and overview of the methods you will use to evaluate the process and outcomes of this program. How does your design reflect the goals or purposes of your study?

Quantitative: What is the counterfactual and how do you measure it—in other words: how do you know what would have happened without the program, policy or practice? What would have happened to the “treatment” group without the treatment and what would their outcomes have been in that circumstance? In an experiment, the counterfactual is provided by a control group. In a quasi-experiment, statistical controls or other adjustments are used

to try to adjust a comparison group so that it approximates the counterfactual. Therefore, it is important to make it clear whether you are proposing an experiment or quasi-experiment. In addition, is important to report whether you will have a pre-test and post-test and whether you will measure implementation, outcomes, or both.

Qualitative: Are you conducting a case study, an action research project, an interview study? What kind of qualitative design is best suited to your research questions. If your aim is to describe more of what is going on then a case study might be the design you choose. If you want to engage in a cycle of inquiry around an intervention then an action research design might be more useful. If you are the practitioner studying the implementation of a program in your own site of practice you might say you are conducting a practitioner inquiry using qualitative procedures.

Mixed Methods: Concurrent, sequential? What weight is to be given to quantitative and qualitative procedures and how does this weighting link to your research questions and purposes.

Remember to link the design to your research purposes.

- **Sampling strategy, sample selection and recruitment.** How and why will you select your participants and secure their participation? What criteria will you use?

Quantitative: How large is the sample? Who is in the sample? How will they be recruited? What are your sampling procedures (a random sample of the population or a purposeful sample)? What will you do to minimize attrition and report the results?

Qualitative: Who and what (sites, classrooms, programs) will you purposefully sample, specify criteria guiding these decisions and show how these criteria link to your research purposes. How will you recruit these people and sites?

All sampling decisions need to be justified in terms of usefulness (including ability to generalize to the population of interest).

- **A detailed description of the data collection procedures.** How will you collect your data? Describe your procedures in sufficient detail that someone else can follow your recipe. Pilot testing is always a good idea.

Quantitative: What measures will be used and how will they be administered? What can you say about reliability and validity? What specific instruments will you use to collect the data (pre-existing or newly created interviews, surveys, rating scales, or tests that you will use)? Pilot test any measures that are new or have not been used locally. How will you ensure confidentiality if that is important? Are there risks to the participants, and, if so, how will you minimize them?

Qualitative: What kinds of interviews (focus group, individual, semi-structured, conversational), observation, documents will you collect - what, why, how, when, who, and how do these procedures help you achieve the goals/purposes of the research.

Throughout your discussion of methodology please reference methodological literature to support your decisions.

The research plan is to be crafted as you proceed through the class so that you can receive feedback before proceeding onto the next section therefore the following pieces of this research plan will be due to the professors at the end of each week.

- Week 7 (5%) - Problem statement, research questions and hypotheses, and outline of lit review with organized bibliography
- Week 12 (5%) - Outline of theory based logic model, design, sample and data collection
- Week 15 (20%) - Complete, revised research plan that includes a full literature review

Research plan due December 20, 2016

Evaluation of Written Work

The following qualities will be valued in your work.

- Responsiveness to the task or question. Make sure that you fulfill *all* the requirements of the assignment.
- Clarity and organization of writing.
- Conciseness. Write in an organized and non-repetitious way.
- Completeness and depth. Present enough detail to support your points. Write or present as though your audience is not an expert on your topic, and in a way that demonstrates depth of your analysis of the topic.
- Independent judgment. Go beyond simply repeating information presented by others. Be critical. Identify both strengths and weaknesses and support opinions regarding these by stating your own reasons.
- Relevance. Connections between your work and the content and organization of this class should be clear.
- Attention to professional style. Papers must be typed or word-processed and strictly follow APA format.
- Timeliness. All work is due on the due date. If you need an extension of time on an assignment, please contact one of us in advance of the due date to discuss a possible extension.
- All assignments are to be submitted in the assignments section of the SAKAI site.

Letter Grade Equivalents

88-92	B+
83-87	B
78-82	C+
73-77	C
68-72	D+
60-67	D
Below 60	F

Academic Integrity Policy

- All students must follow the RU Code of Student Conduct which can be accessed at:
<http://rci.rutgers.edu/%7Epolcomp/judaff/ucsc.shtml>
- For information on the academic integrity policy, please go to:
<http://www.rci.rutgers.edu/~polcomp/integrity/policy.shtml>
- A multimedia presentation on plagiarism can be found at:
<http://www.rci.rutgers.edu/~polcomp/integrity/realifeexamples.html>

Related regulations may also be found in the Rutgers Graduate School of Education Catalog

Important Note: This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check Sakai for corrections or updates to the syllabus. Any changes will be clearly noted in course announcement or through Sakai email.

Topic Outline/Schedule & Assignments

Class	Date	Topic	Readings	Activities/ Assignments
1	9/6/2016	What is educational research and how can it be used to improve practice? Why do educational leaders need to use research? Differing orientations to educational research: Class overview.	If you have time Read Gall, Gall & Borg (2015) chapters for week 2.	Group work on articles Begin considering the problem of practice you would like to address.
2	9/13/16	Conceptualizing a Study: <ul style="list-style-type: none"> • Naming & framing problems; • Asking questions; • Coming up with testable hypotheses. Ethical considerations	Read: Gall, Gall & Borg Chapters 1 & 2 Skim: Lee and Bryk (1986) Hubbard & Datnow (2005)	Review qualitative quantitative and mixed methods study examples. How do the authors conceptualize the study, what kinds of literature do they draw upon, what are the questions asked. Bring to class a draft of your problem statement, research questions etc. for peer review
3	9/20/16	Conceptualizing a study pt. 2 - using the literature to frame a problem of practice. <ul style="list-style-type: none"> • What is a literature review • Architecture of a literature review • Evaluating and critiquing a literature review 	Gall, Gall & Borg, Chapters 3 & 4 Schanzenbach (2014) Class size	Review qualitative quantitative study examples. What do they include in the literature review, how is the literature presented? Playing around with literature. CITI certification should be completed.

4	9/27/16	<p>Literature reviews:</p> <ul style="list-style-type: none"> • What's the evidence? Learning how to read studies critically. • what to include in a literature review 	<p>Lauer (2004) pp. 1-36 Skim Graue & Mosteller studies</p>	<p>Bring in a draft of problem statement, research questions/hypotheses to share and work on in class.</p> <p>Research Article Critique due.</p>
5	10/4/16	<p>Conceptualizing a study part 3: Where does theory fit into all of this?</p>	<p>Read: Creswell (2014) The use of theory Lawton, Brandon, Cicchinelli, & Kekahio (2014). Logic model primer</p>	<p>Ed.D. graduate guest speaker.</p>
6	10/11/16	<p>What is research design? Different designs, for different purposes. Reliability and validity. Research ethics</p>	<p>Read: Creswell (2014). The selection of a research approach, Gall, Gall and Borg (2015). Chapter 5</p>	
7	10/18/16	<p>Sampling 1 and sampling 2 How do you represent a population? Sampling Part 2. Sampling for maximum variation. Mixed methods sampling</p>	<p>Read: An introduction to sampling.</p>	<p>Draft of Problem statement, research questions and hypotheses, and outline of lit review with organized bibliography due</p>
8	10/25/16	<p>Data collection procedures Part 1: Surveying/ Interviewing. Qualitative interviewing.</p>	<p>Read: Patton Qualitative Interviewing (2002).</p>	<p>Designing a qualitative interview protocol. Coming up with a sampling plan for the interview/survey assignment.</p>
9	11/1/16	<p>Surveying/Interviewing.</p>	<p>Read: Walonick (2004)</p>	<p>Designing a survey protocol.</p>

10	11/8/16	Data collection procedures Part 2. Existing data sets. Documents and artifacts.	Read: Merriam Ch. 7. Mining data from documents.	
11	11/15/16	Data collection procedures Part 3: Observation	Read: Cohen, Manion, & Morrison. (2007). Observation.	
12	11/29/16	Observation revisited. Reflecting on data collection.		Outline of theory based logic model, design, sample and data collection
13	12/6/16	Working on your research plans: Situating methods and procedures in the literature. What is your conceptual model derived from the literature?	Read: Lemons et al. (2014). Revisit fundamental issues of design.	Interview/survey data collection & reflection paper is due.
14	12/13/16	Working on your research plans. Revisiting key issues. Writers workshop	Drawing on Gall, Gall & Borg for different research approaches	
15	12/20/16	Putting it all together. Presentation of research plans so far. Looking forward to Inquiry 2		Final research plans due