

## PHD IN EDUCATION PROGRAM

### EDP 623 Research Design

#### Catalog Description:

Students develop problem statements, research questions, hypotheses, and literature reviews, and **identify** appropriate **methodology** (qualitative, quantitative, mixed methods). Course considers philosophical worldviews, theory use, and research ethics.

#### Extended Course Description:

The purpose of this course is to provide an overview of research design. This overview consists of understanding the preliminary considerations that go into selecting a qualitative, quantitative, or mixed methods research design. These include knowing the definition for these different approaches, considering philosophical worldviews, reviewing the literature, understanding the use of theory, anticipating ethical issues, and developing writing strategies. We will discuss the process of research as it relates to each approach. This process includes writing an introduction, specifying a purpose statement, and developing research questions and/or hypotheses. This course will also discuss the methods and procedures for quantitative, qualitative, and mixed methods studies.

#### Required Texts:

- Fraenkel, Jack R., and Norman E. Wallen. (2006). *How to Design and Evaluate Research in Education* (6th ed.). New York: McGraw-Hill.
- Green, J.L., Camilli, G., Elmore, P. (Eds.) (2006). *Handbook of Complementary Methods in Education Research*. Mahwah, NJ: Lawrence Earlbaum Associates.

#### Supplementary Text:

- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

#### Optional Recommended Texts:

- American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, D.C.: American Psychological Association.

Some weblinks for APA style:

- <http://www.wooster.edu/psychology/apa-crib.html>
- <http://www.psychwww.com/resource/apacrib.htm>
- <http://www.lib.usm.edu/~instruct/guides/apa.html>
- APA Tutorial at <http://www.lib.usm.edu/legacy/tutorials/apatutorial/tutorialindex.html>

**Course Objectives:**

Upon completion of the course, it is expected that students will have increased their skills to:

<u>Course Learning Objectives</u>	<u>FSEHD Advanced Competencies</u>
1. Distinguish among the basic characteristics of qualitative, quantitative, and mixed methods research and the differences among these approaches.	Knowledge
2. Discuss the major philosophical worldviews related to research.	Knowledge
3. Distinguish among the major strategies of inquiry used in qualitative, quantitative, and mixed methods research.	Knowledge
4. Search the research literature on a topic of interest.	Practice
5. Describe the role of literature and theory in qualitative, quantitative, and mixed methods research.	Knowledge
6. Develop writing strategies for qualitative, quantitative, and mixed methods research proposals and reports.	Practice
7. Anticipate ethical issues related to research.	Professionalism; Diversity
8. Identify the elements that comprise a good introduction to research.	Knowledge
9. Write a purpose statement for qualitative, quantitative, and mixed methods research.	Practice
10. Develop research questions and/or hypotheses for qualitative, quantitative, and mixed methods research.	Practice

<u>Course Learning Objectives</u>	<u>FSEHD Advanced Competencies</u>
11. Recognize and apply the procedures involved in developing quantitative, qualitative, and mixed methods plans.	Knowledge; Practice
12. Use understanding of research design to critique existing research articles and reports	Knowledge; Practice
13. Develop a proposal for a research study.	Practice

**Methodology:**

The class will be conducted as a graduate seminar blending individual, small group and large group activities using multiple avenues of information gathering and communication. The development of the course is based on the notion that learning is something people do and knowledge is gained by doing -- not something passively received. The perspective of this course is that adults learn best when they can:

- direct their own learning.
- influence/participate in meaningful decision making.
- focus on problems relevant to practice.
- use their own, rich experiential backgrounds.
- build strong relationships with peers.
- exercise some control over both the content and the processes of learning.
- influence activities and topic/format of discussions.

**Course schedule, topics, and assignments:**

Session	Topic	Readings	Assignment due*
1	Introduction to course		
2	The nature of educational research  The research problem	Fraenkel & Wallen, Ch. 1, 2  Mackenzie, N. & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. <i>Issues in Educational Research</i> , 16(2), 193-205. <a href="http://www.iier.org.au/iier16/mackenzie.html">http://www.iier.org.au/iier16/mackenzie.html</a>  Review: Creswell, Ch. 1	
3	Variables and hypotheses  Ethics and research	Fraenkel & Wallen, Ch. 3, 4  Review: Creswell, Ch. 3	Problem Sheets 1 and 2 due
4	Review of the literature  Sampling	Fraenkel & Wallen, Chs. 5, 6  Baumeister, R. F., & Leary, M. R. (1997). Writing narrative literature reviews. <i>Review of General Psychology</i> , 1, 311-320. §  Review: Creswell, Ch. 2	Problem Sheets 3 and 4 due  Complete Human Subjects Review Training; submit certificate of completion
5	Instrumentation  Validity and reliability	Fraenkel & Wallen, Ch. 7, 8	Problem sheets 5 and 6 due

Session	Topic	Readings	Assignment due*
6	Internal validity	<p>Fraenkel &amp; Wallen, Ch. 9</p> <p>McMillan, James H. (2007). Randomized Field Trials and Internal Validity: Not So Fast My Friend. <i>Practical Assessment Research &amp; Evaluation</i>, 12(15). Available online: <a href="http://pareonline.net/getvn.asp?v=12&amp;n=15">http://pareonline.net/getvn.asp?v=12&amp;n=15</a></p>	Problem Sheets 7 and 8 due
7	Preparing research reports and proposals	<p>Fraenkel &amp; Wallen, Ch. 24</p> <p>Rudner, L.M. &amp; Schafer, W.D. (1999). How to write a scholarly research report. <i>Practical Assessment, Research &amp; Evaluation</i>, 6(13). Available: <a href="http://PAREonline.net/getvn.asp?v=6&amp;n=13">http://PAREonline.net/getvn.asp?v=6&amp;n=13</a></p> <p>Pajares, F. (2007). <i>Elements of a proposal</i>. Available <a href="http://www.des.emory.edu/mfp/proposal.html">http://www.des.emory.edu/mfp/proposal.html</a>.</p> <p>Review: Creswell, Chs. 5, 6, &amp; 7</p>	Preparing research reports and proposals
8	Experimental Research	<p>Fraenkel &amp; Wallen, Ch. 13</p> <p>US Department of Education. (2004). <i>Identifying and Implementing Educational Practices Supported By Rigorous Evidence: A User Friendly Guide</i>. Available: <a href="http://www.ed.gov/rschstat/research/pubs/rigorousvid/index.html">http://www.ed.gov/rschstat/research/pubs/rigorousvid/index.html</a></p> <p>Cook, T. (2001). Sciencephobia: Why education researchers reject randomized experiments. <i>Education Next</i>, 63-68. §</p> <p>Review: Creswell, Ch. 8</p>	Problem Sheet 9 due

Session	Topic	Readings	Assignment due*
9	Correlational and Causal Comparative Research	<p>Fraenkel &amp; Wallen, Ch. 15, 16</p> <p>Helberg, Clay (1996). Pitfalls of data analysis. <i>Practical Assessment, Research &amp; Evaluation</i>, 5(5). Available: <a href="http://PAREonline.net/getvn.asp?v=5&amp;n=5">http://PAREonline.net/getvn.asp?v=5&amp;n=5</a>.</p> <p>Riehl, C. (2006). Feeling better: A comparison of medical research and educational research. <i>Educational Researcher</i>, 25 (5), 24-29. §</p>	Problem Sheet 13 due
10	Survey Research	<p>Fraenkel &amp; Wallen, Ch. 17</p> <p>Crocker, L. (2006). Introduction to measurement theory (Chapter 22). In Green, J.L., Camilli, G., Elmore, P. (Eds.) <i>Handbook of Complementary Methods in Education Research</i>. Mahwah, NJ: Lawrence Earlbaum Associates.</p> <p>Chromy, J. (2006). Survey sampling (Chapter 38). In Green, J.L., Camilli, G., Elmore, P. (Eds.) <i>Handbook of Complementary Methods in Education Research</i>. Mahwah, NJ: Lawrence Earlbaum Associates.</p>	

Session	Topic	Readings	Assignment due*
11	Qualitative Research Designs	<p>Fraenkel &amp; Wallen, Ch. 18</p> <p>Anderson-Levitt, K.M. (2006). Ethnography (Chapter 16). In Green, J.L., Camilli, G., Elmore, P. (Eds.) <i>Handbook of Complementary Methods in Education Research</i>. Mahwah, NJ: Lawrence Earlbaum Associates.</p> <p>Yin, R.K. (2006). Case study methods (Chapter 6). In Green, J.L., Camilli, G., Elmore, P. (Eds.) <i>Handbook of Complementary Methods in Education Research</i>. Mahwah, NJ: Lawrence Earlbaum Associates.</p> <p>Review: Creswell, Ch. 9</p>	
12	Reliability and Validity in Qualitative Research Designs	<p>Maxwell, J. (2004). Causal explanation, qualitative research, and scientific inquiry in education. <i>Educational Researcher</i>, 33 (2), 3-11. §</p> <p>Golafshani, N. (2003). Understanding reliability and validity in qualitative research. <i>The Qualitative Report</i>, 8 (4), 597-607. Available: <a href="http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf">http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf</a>.</p> <p>Cho, J. &amp; Trent, A. (2006). Validity in qualitative research revisited. <i>Qualitative Research</i>, 6 (3), 319-340. Available: <a href="http://qrj.sagepub.com/cgi/reprintsidebar/6/3/319">http://qrj.sagepub.com/cgi/reprintsidebar/6/3/319</a></p>	

Session	Topic	Readings	Assignment due*
13	Qualitative Procedures	<p>Fraenkel &amp; Wallen, Ch. 19</p> <p>Nespor, J. (2006). Finding patterns with field notes. In Green, J.L., Camilli, G., Elmore, P. (Eds.) <i>Handbook of Complementary Methods in Education Research</i>. Mahwah, NJ: Lawrence Earlbaum Associates.</p> <p>Eisenhart, M. (2006). Representing qualitative data (Chapter 34). In Green, J.L., Camilli, G., Elmore, P. (Eds.) <i>Handbook of Complementary Methods in Education Research</i>. Mahwah, NJ: Lawrence Earlbaum Associates.</p>	Article critique due
14	Mixed Methods Procedures	<p>Erickson, K. &amp; Roth, W-M. (2006). What good is polarizing research into qualitative and quantitative? <i>Educational Researcher</i>, 35 (5), 14-23. §</p> <p>Smith, M.L. (2006). Multiple methodology in educational research (Chapter 27). In Green, J.L., Camilli, G., Elmore, P. (Eds.) <i>Handbook of Complementary Methods in Education Research</i>. Mahwah, NJ: Lawrence Earlbaum Associates.</p> <p>Review: Creswell, Ch. 10</p>	
15	Presentations and Course Wrap Up	Student presentations of research proposals	Research Proposal Due

\* Additional homework assignments will be distributed in class  
 § Reading available on WebCT

**Course Requirements:**

1. *Class Participation*

You are expected to attend and actively participate in the class discussions and activities. Participation also includes reading the assigned texts in advance of each class, reviewing related materials, and sharing your ideas during class discussions and/or activities. You will also

be asked to bring materials to class, react to other students' work, or turn in your own work for comments as part of the participation grade.

2. ***Human Subjects Research Training***

Each EDP 623 student is expected to understand the research process and ethical issues that are pertinent to conducting research with human subjects. Completion of a recognized training program in the protection of human research subjects helps facilitate a greater understanding of these issues. Furthermore, many universities nationwide are requiring training as part of their Human Subjects Protection Programs, requiring that faculty and non-faculty members who will need to make an IRB submission complete an appropriate human subjects research course before protocols for research can be reviewed by the IRB.

To this end, you are required to complete and pass the National Institute of Health's online Protecting Human Research Participants course. This course is designed to prepare investigators involved in the design and/or conduct of research involving human subjects to understand their obligations to protect the rights and welfare of subjects in research. The course material presents basic concepts, principles, and issues related to the protection of research participants. You may register for the course at <http://phrp.nihtraining.com/users/register.php> .

3. ***Written assignments:***

You will regularly be asked to complete various Study Design Worksheets and other assignments to help you understand the fundamentals of research and to apply them to your own work.

Problem Sheets are required for Chapters 1-13 of the Fraenkel and Wallen text. A copy of the Problem Sheet that corresponds to a particular chapter can be found at the end of that chapter in the textbook. Problem sheets are also available on WebCt. Often time will be allowed in class to work on these sheets and to discuss them. Problem Sheets are quite short, and past classes have found them most helpful.

4. ***Review a research article***

Identify one published studies that uses the same research design and strategy of inquiry that you plan to use in your proposed project. An outline for the article critique is included on page 12 of this syllabus. You must submit a copy of the article with the review.

5. ***Complete a proposal for a research study***

One of the best ways to learn about research is to think about doing it, and hence, the major assignment in the course is to design a proposal for a research investigation that you would be able to conduct. The research proposal should contain the following sections:

- Abstract

- Section 1: Problem to be investigated
- Section 2: Background and review of related literature
- Section 3: Procedures
- A complete list of references
- Appendices including copies of instruments or protocols

Your writing should follow the standards established in the course and in-text and end-of-text references should follow APA style manual format.

The required components of each section of the proposal, as well as the criteria for evaluation of the research proposal, are in the attached *Research Proposal Quality Indicators* found on page 19 of this syllabus.

#### 6. *Present Your Research Proposal*

Prepare a presentation to the class about your proposed project. Each presentation will last about 15 minutes and will convey the major aspects of your project paper.

#### Assessment:

Assignments	% of Final Grade
Class Participation	20
Completion of Human Subjects Research Training	10
Writing Assignments	10
Article Critique	20
Research Proposal	35
Major Project Presentation	5

#### Optional Recommended Texts:

- American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, D.C.: American Psychological Association.

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- <http://www.psychwww.com/resource/apacrib.htm>
- <http://www.lib.usm.edu/~instruct/guides/apa.html>
- APA Tutorial at <http://www.lib.usm.edu/legacy/tutorials/apatutorial/tutorialindex.html>