

**George Mason University
College of Education and Human Development**

**EDRS 824
MIXED METHODS RESEARCH: INTEGRATING QUALITATIVE AND
QUANTITATIVE APPROACHES
Fall 2012**

Instructor: Joe Maxwell
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Class meeting: Monday, 7:20-10:00; see course schedule.
Location: Robinson B218.
Prerequisites: Successful completion (with a grade of B or higher) of EDRS 810 and EDRS 812, or equivalent coursework or experience. EDRS 811 is recommended but not required, since the main focus of 811 (how to do more advanced statistical analysis than that covered in EDRS 810) isn't essential for much mixed methods research. If you anticipate using sophisticated statistical analysis for a planned mixed methods study, you need to be familiar with these techniques and their limitations; some of the limitations will be discussed in this course.

Catalog Description

This course is an advanced research seminar dealing with integrating qualitative and quantitative approaches, methods, and data in a single study. The course covers the paradigms and “mental models” that inform both approaches, and the ways in which qualitative and quantitative goals, questions, methods, analysis strategies, and presentation styles can be productively combined.

Course Goals

The main goals of the course are:

1. Understand the most important characteristics of mixed methods research, and the main ways in which this approach differs from single-method research strategies.
2. Understand the most important strengths and limitations of both qualitative and quantitative research, and how to integrate these approaches in a mixed method study.
3. Be able to use these understandings to evaluate published mixed methods research.
4. Be able to plan and communicate the design and process of a mixed methods study.

Assigned Books

Jennifer Greene, *Mixed Methods in Social Inquiry*. Jossey-Bass, 2007.

Stanley Milgram, *Obedience to Authority*. Harper, 1976. Reprinted with a new foreword by Jerome Bruner, 2004.

Thomas S. Weisner (Ed.), *Discovering Successful Pathways in Children's Development: Mixed Methods in the Study of Childhood and Family Life*. University of Chicago Press, 2005.

Recommended Reference Books and Journals

Abbas Tashakkori & Charles Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research (2nd edition)*. Sage Publications, 2010.

Judith L. Green, Gregory Camilli, & Patricia B. Elmore (Eds.), *Handbook of Complementary Methods in Education Research (3rd Edition)*. Lawrence Erlbaum, 2006.

The major journal for papers dealing with the methodology of mixed method research is the *Journal of Mixed Method Research*.

Course Structure and Requirements

Class meetings will be run as seminars. I expect you to come to class prepared to discuss the reading assignments, and encourage you to share with the class other readings and examples you have found that are relevant. I will give mini-lectures on topics that I think are not well addressed by available readings, and there will be in-class exercises dealing with certain skills. There will also be opportunities for you to present to the class, and get feedback on, your own research (what, in EDRS 812, I call “consultations”), and how integrating approaches can be useful in this.

Before beginning the readings for a particular week I suggest that you ask yourself what *your* questions and concerns are about the topics for that week and that you list them. After finishing a reading, jot down the author's main points. Then, ask yourself how these relate to your questions or concerns. Did the reading answer your questions? Did it give you new ideas or ways of approaching your study? How can you use what you learned from reading it? If an example of a mixed method study is assigned, analyze it in terms of the methodological readings: How do the latter’s ideas apply? How do they not apply? What are the methodological readings’ implications for this study, and vice versa? How can this example inform your own study?

We will often be reading articles or book chapters presenting different perspectives on the same issue. Think about each author's approach to mixed method research as you read his/her work, and how this fits into the different approaches we have discussed.

Grading

Written assignments

There will be three written assignments, corresponding to the three modules of the course; each of these will count for 30% of the grade. For each of modules, there will be a choice of several assignments, as described in the Guidelines for the assignments. Alternative assignments to those that I suggest are possible, but you need to discuss these with me and get my approval prior to doing the assignment. Page lengths for written assignments are suggestions only. Length is to be determined by the needs of the individual assignments.

My criteria for evaluating written assignments are: your understanding of the readings (through your discussion of the material and your application of it to your research topic), demonstration of an analytic/critical stance toward the material, appropriate application of the ideas, and clarity

in organization and writing. The grading criteria and procedures will be presented and discussed in class. Grading scale: A+, A, A-, B+, B, B-, C, F.

Class participation

Class participation will count for the final 10% of the grade. Class participation grades will be based on informed, relevant, productive, and respectful contributions (questions as well as comments and responses) to class discussions; attendance will be a factor in this part of the grade.

Student Expectations

Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].

Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].

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- Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times. For additional information on the College of Education and Human Development's core values, see <http://gse.gmu.edu/>.

If you are a student with a disability, please let me know how I can best adjust the course to your strengths and needs. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>, or call 703-993-2474 to access the ODS].

Campus Resources

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
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- The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].

COURSE SCHEDULE

Week

Topic and readings

Module 1: What is mixed method research

8/27 Introduction to the course and to mixed method research

Greene, *Mixed methods in social inquiry*, Introduction and Chapters 1-3
Elbow, The believing game and how to make conflicting opinions more fruitful (Blackboard)
Rabinowitz & Weseen, Power, politics, and the qualitative/quantitative debates in psychology (Blackboard)
McPhee, *Annals of the Former World*, pp. 19-25, 378-382 (e-reserve)

9/3 Labor Day—no class

9/10 Qualitative and quantitative

James, Inside-out perspective (Blackboard)
Hammersley, Deconstructing the qualitative-quantitative divide (Blackboard).
Freedman, On types of scientific inquiry: The role of qualitative reasoning (e-reserve)
Maxwell, Using numbers in qualitative research (Blackboard).
Minta et al., Hunting associations between badgers and coyotes (Blackboard)
Kidder & Fine, Qualitative and quantitative methods: When stories converge (Blackboard)
White, Of probits and participation: The use of mixed methods in quantitative impact evaluation.

Recommended:

Blumer, Sociological analysis and the “variable” (Blackboard)

9/17 Paradigm issues

Greene, *Mixed methods in social inquiry*, Chapters 4-5 and Interlude 1
Yanchar & Williams, Reconsidering the compatibility thesis and eclecticism: Five proposed guidelines for method use (Blackboard)
Oakley, Paradigm wars (Blackboard)
Maxwell, Paradigms or toolkits? Philosophical and methodological positions as heuristics for mixed methods research (Blackboard)
Maxwell & Mittapalli, Realism as a stance for mixed methods research (Blackboard)
Sleeter, Epistemological diversity in research on preservice teacher preparation for historically underserved children (Blackboard)

Recommended:

Lee Shulman, *Paradigms and programs*.

Maxwell, *A realist approach for qualitative research* (Blackboard)

Phillips, *Postpositivistic science: Myths and realities* (e-reserve)

Maxwell & Lincoln, *Methodology and epistemology: A dialogue* (Blackboard)

Pitman & Maxwell, *Qualitative approaches to evaluation* (e-reserve)

9/24 Mixed methods social research

Weisner, Introduction to *Discovering successful pathways*.

Castle, Fox, & Souder, Do professional development schools make a difference? A comparative study of PDS and non-PDS teacher candidates (Blackboard).

Goldenberg, Gallimore, & Reese, Using mixed methods to explore Latino children's development, in Weisner, *Discovering successful pathways*.

Fricke, Taking culture seriously: Making the social survey ethnographic, in Weisner, *Discovering successful pathways*.

10/1 Writing about mixed method research

Greene, *Mixed methods in social inquiry*, Chapter 10 and Interlude 3

Marshall & Barritt, Choices made, worlds created: The rhetoric of AERJ (Blackboard)

Bem, Writing the empirical journal article (Blackboard)

Sandelowski, Tables or tableaux? The challenges of writing and reading mixed methods studies. (Blackboard)

Recommended:

Howard S. Becker, *Writing for social scientists*.

American Psychological Association Publication Manual

Maxwell, "Guide to the APA Publication Manual: The most important things to remember." (Blackboard)

John S. Nelson, Allan Megill, and Donald N. McCloskey (Eds.), *The Rhetoric of the Human Sciences*. University of Wisconsin Press, 1987.

Module 2: Design, analysis, and validity

Tuesday 10/9 “Scientific research” and mixed methods

Module 1 assignment due

Maxwell, Causal explanation, qualitative research, and scientific inquiry in education (Blackboard)

Smith and Pell, Parachute use to prevent death and major trauma related to gravitational challenge: Systematic review of randomised controlled trials (Blackboard)

Swern, A story of evidence-based medicine: Hormone replacement therapy and coronary heart disease in postmenopausal women (Blackboard)

What is causing Arctic sea ice decline? <<http://nsidc.org/icelights/2012/05/16/what-is-causing-arctic-sea-ice-decline/> - more-747>

Eisenhart, Hammers and saws for the improvement of educational research (Blackboard)

Recommended:

Platt, Strong inference (Blackboard)

Scriven, A Summative Evaluation of RCT Methodology: & An Alternative Approach to Causal Research (Blackboard)

Shadish, Cook, & Campbell, *Experimental and quasi-experimental designs for generalized causal inference*, Chapter 1 (e-reserve).

Chatterji, Evidence on “what works”: An argument for extended-term mixed-method (ETMM) evaluation designs (Blackboard)

Conrad (Ed.), *Critically evaluating the role of experiments*.

Lewontin, The analysis of variance and the analysis of causes, in Block (Ed.), *The IQ controversy* (Blackboard)

Maxwell, Re-emergent scientism, postmodernism, and dialogue across differences (Blackboard)

Maxwell, Explanation (Blackboard)

Maxwell, Scientism (Blackboard)

Pawson & Tilley, *Realistic evaluation*.

Raudenbush, Learning from attempts to improve schooling: The contribution of methodological diversity (Blackboard)

10/15 Research design and research problems

Greene, *Mixed methods in social inquiry*, Chapters 6-7 and Interlude 2

Maxwell & Loomis, Mixed method design: An alternative approach (Blackboard)

Maxwell, *Qualitative research design*, chapter 3

Kling et al., “Bullets don’t got no name,” in Weisner, *Discovering successful pathways*

Recommended:

Maxwell, Literature reviews of, and for, educational research (Blackboard)

10/22 Data analysis

Greene, *Mixed methods in social inquiry*, Chapter 8

Maxwell, Some notes on key concepts in quantitative analysis (unpublished class notes) (Blackboard)

Cohen, The Earth is round ($p < .05$) (Blackboard)

Nix & Barnette, The data analysis dilemma: Ban or abandon. A review of null hypothesis significance testing (Blackboard)

Boaler & Staples, Creating mathematical futures (Blackboard)

Weiss et al., Working it out: The chronicle of a mixed-method analysis, in Weisner, *Discovering successful pathways*.

Recommended:

Matthew Miles & A. Michael Huberman, *Qualitative data analysis: An expanded sourcebook*. Sage Publications, 1994.

Maxwell & Miller, Categorizing and connecting strategies in qualitative data analysis (Blackboard)

Gigerenzer, Mindless statistics (Blackboard)

Thompson, Statistical significance and effect size reporting: Portrait of a possible future (Blackboard)

http://en.wikipedia.org/wiki/Exploratory_data_analysis

<http://www.itl.nist.gov/div898/handbook/eda/eda.htm>

10/29 Validity and generalizability

Greene, *Mixed methods in social inquiry*, Chapter 9

Maxwell, *Qualitative research design*, 3rd ed., chapter 6, "Validity" (Blackboard)

James, Jeter vs. Everett (Blackboard)

Leibovici, Effects of remote, retroactive, intercessory prayer (Blackboard)

Saletan, <http://www.slate.com/articles/health_and_science/human_nature/2012/06/new_family_structures_study_is_gay_parenthood_bad_or_is_gay_marriage_good_.html>

Weisner et al., Behavior sampling and ethnography (Blackboard)

Recommended:

Saletan, A liberal war on science?

<http://www.slate.com/articles/health_and_science/human_nature/2012/06/don_t_let_criticism_of_the_new_gay_parents_study_become_a_war_on_science.single.html>

Kaplan, Fill in the numbers <<http://www.slate.com/id/2233353?wpisrc=newsletter>>

Conrad & Conrad, Reassessing validity threats in experiments: Focus on construct validity (e-reserve)

Hammersley, *What's wrong with ethnography?*, Chapters 5, 7, and 8.

Maxwell, Chapter 8: Validity (Blackboard).

Shadish, Cook, & Campbell, *Experimental & quasi-experimental designs for generalized causal inference*, particularly Chapters 2-3 and 11-12.

Becker, Generalizing from case studies. In Eisner & Peshkin, *Qualitative inquiry in education* (Blackboard)

Module 3: Integrating approaches, methods, and data

11/5 Strategies for integrating approaches

Module 2 assignment due

Bryman, Barriers to integrating quantitative and qualitative research (Blackboard)
Trend, On the reconciliation of qualitative and quantitative analyses: A case study (Blackboard)
Kaplan & Duchon, Combining qualitative and quantitative methods in information systems research: A case study (Blackboard)

Recommended:

Maxwell, Diversity and methodology (Blackboard) ?
Shulman, Summary and prognosis, in Shulman, *Paradigms and programs* (Blackboard)

11/12 Examples: Integrating data collection methods

Maxwell, Sandlow, & Bashook, Combining ethnographic and experimental methods in evaluation research: A case study (Blackboard)
Rank, The blending of qualitative and quantitative methods in understanding childbearing among welfare recipients (Blackboard)
Bernheimer, Weisner, & Lowe, Impacts of children with troubles on working poor families: Mixed-method and experimental evidence (Blackboard)
Zentella, Integrating qualitative and quantitative methods in the study of bilingual code switching (Blackboard)

11/19 Presenting integrated analyses and results

Morse, Tylko, & Dixon, Characteristics of the Fall-Prone Patient (Blackboard)
Morse & Tylko, The Use of Qualitative Methods in a Study Examining Patient Falls (Blackboard)
Milgram, *Obedience to authority*. Harper & Row, 1974

Recommended:

Tolman & Szalacha, Dimensions of desire: Bridging qualitative and quantitative methods in a study of female sexuality, in Hesse-Biber & Leavy (Eds), *Approaches to qualitative research* (e-reserve)

11/26 More examples of integrating analyses and results

- Irwin, Data analysis and interpretation: Emergent issues in linking qualitative & quantitative evidence (Blackboard).
- Muth, Conceptualizing incarcerated literacy learners: Pragmatic and dialectical uses of assessment data. Unpublished paper (Blackboard)
- Gibson-Davis & Duncan, Qualitative-quantitative synergies in a random-assignment program evaluation, and the commentary by Huston, in Weisner, *Discovering successful pathways*.

12/3 Final class: Presentations of mixed method designs/learning

Module 3 assignment due

Full references

- Becker, Howard S., *Writing for social scientists*. University of Chicago Press, 2007.
- Castle, S., Fox, R., & Souder, K. "Do professional development schools make a difference? A comparative study of PDS and non-PDS teacher candidates." *Journal of Teacher Education* 57 (1), pp. 65-80 (Jan/Feb 2006)
- Cook, Thomas, and Reichardt, Charles (Eds), *Qualitative and quantitative methods in evaluation research*. Sage, 1979
- Dillman, D. A., Smyth, J. D., & Christian, L. M., *Internet, mail, and mixed-mode surveys: The tailored design method*. Wiley, 2008. (Strongly recommended for those considering using surveys.)
- Guba, Egon (Ed.), *The paradigm dialog*. Sage Publications, 1990.
- Hammersley, Martyn, Deconstructing the qualitative-quantitative divide, in Hammersley, *What's wrong with ethnography?* Routledge, 1992.
- Howe, Kenneth, *Closing methodological divides*. Kluwer, 2003.
- Irwin, Sara, Data analysis and interpretation: Emergent issues in linking qualitative & quantitative evidence. In S. N. Hesse-Biber & P. Leavy (Eds), *Handbook of emergent methods*, pp. 415-435.
- James, Bill, "Inside-out Perspective", in *The Bill James Baseball Abstract, 1984*, pp. 5-8. Ballantine Books.
- Kaplan, Bonnie and Duchon, Dennis, "Combining qualitative and quantitative methods in information systems research: A case study." *MIS Quarterly* 12, pp. 571-586 (1988).

- Kidder, L. & Fine, M., Qualitative and quantitative methods: When stories converge. In Mark, M. M., and Shotland, R. L. (Eds.), *Multiple methods in program evaluation*. San Francisco: Jossey-Bass, 1987.
- Lewontin, Richard, The analysis of variance and the analysis of causes. *American Journal of Human Genetics* 26, pp. 400-411 (1974). Reprinted in Block and Dworkin (Eds.), *The IQ Debate*.
- Marshall, M. J., & Barritt, L. S., Choices made, worlds created: The rhetoric of AERJ. *American Educational Research Journal* 27(4), pp. 589-609 (Winter 1990)
- Maxwell, Joseph A., "Causal explanation, qualitative research, and scientific inquiry in education." *Educational Researcher* 33(2), 3-11 (March 2004)
- Maxwell, Joseph A., "Explanation." In L. Given (Ed.), *The SAGE Encyclopedia of Qualitative Research Methods*. Thousand Oaks, CA: Sage Publications, 2008.
- Maxwell, Joseph A., Paradigms or toolkits? Philosophical and methodological positions as heuristics for mixed methods research. *Midwest Educational Research Journal* (in press).
- Maxwell, Joseph A., "Re-emergent scientism, postmodernism, and dialogue across differences." *Qualitative Inquiry* 10, pp. 35-41 (February 2004)
- Maxwell, Joseph A., "Scientism." In William A. Darity, Jr. (Ed.), *International Encyclopedia of the Social Sciences*, 2nd ed., Vol. 7, pp. 364-365. Detroit: Macmillan Reference USA, 2008..
- Maxwell, Joseph A., Using numbers in qualitative research. *Qualitative Inquiry* 16(6), pp. 475-482 (2010).
- Maxwell, Joseph A., "Using qualitative methods for causal explanation." *Field Methods* 16(3), pp. 243-264 (August 2004).
- Maxwell, Joseph A., *A realist approach for qualitative research*. Thousand Oaks, CA: Sage Publications, 2011.
- Maxwell, Joseph A., "The value of a realist understanding of causality for qualitative research." In N. Denzin (Ed.), *Qualitative inquiry and the politics of evidence*. Walnut Creek, CA: Left Coast Press, 2008.
- Maxwell, Joseph, and Lincoln, Yvonna, "Methodology and epistemology: A dialogue." *Harvard Educational Review* 60(4), pp. 497-512 (November 1990).
- Maxwell, Joseph A., and Loomis, Diane, "Mixed methods design: An alternative approach." In Abbas Tashakkori and Charles Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research*, pp. 241-271. Sage Publications, 2003.

- Maxwell, Joseph A., and Miller, Barbara A., "Categorizing and connecting strategies in qualitative data analysis". In P. Leavy and S. Hesse-Biber (Eds.), *Handbook of emergent methods*, pp. 461-477. New York: Guilford Press, 2008
- Maxwell, Joseph A., and Mittapalli, Kavita, Realism as a stance for mixed method research. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research*, 2nd edition, pp. 145-167. Thousand Oaks, CA: Sage Publications, 2010.
- Maxwell, Joseph A., Sandlow, Leslie J., and Bashook, Philip G., Combining ethnographic and experimental methods in evaluation research: A case study. In David Fetterman & Mary Ann Pitman, *Educational evaluation: Ethnography in theory, practice, and politics*. Sage Publications, 1986.
- Nix, Thomas W., and Barnette, J. Jackson, The data analysis dilemma: Ban or abandon. A review of null hypothesis significance testing. *Research in the Schools* 5(2), pp. 3-14 (1998)
- Pawson, Ray, & Tilley, Nick, *Realistic evaluation*. Sage Publications, 1997.
- Phillips, Postpositivistic science: Myths and realities. In Egon Guba (Ed.), *The paradigm dialog*.
- Pitman, M. A., and Maxwell, J. A., Qualitative approaches to evaluation. In M. D. LeCompte, W. L. Millroy, and J. Preissle (Eds.), *The handbook of qualitative research in education*, pp. 729-770. Academic Press, 1992
- Platt, John R., Strong inference. *Science* 146, pp. 347-353 (Oct 16, 1966). Reprinted in H. S. Broudy et al (Eds), *Philosophy of educational research*. New York: John Wiley & Sons, 1973.
- Rabinowitz, V. C., & Weseen, Susan, Power, politics, and the qualitative/quantitative debates in psychology. In D. Tolman & M. Brydon-Miller (Eds.), *From subjects to subjectivities: A handbook of interpretive and participatory methods*, pp. 12-28. New York: New York University Press, 2001.
- Ragin, Charles, and Becker, Howard S. (Eds.), *What is a case?* Cambridge: Cambridge University Press, 1992.
- Rank, The blending of qualitative and quantitative methods in understanding childbearing among welfare recipients, In S. Hesse-Biber & P. Leavy (Eds), *Approaches to qualitative research*.
- Sandelowski, Margarete, Tables or tableaux? The challenges of writing and reading mixed methods. In A. Tashakkori & C. Teddlie, *Handbook of mixed methods in social and behavioral research*. Sage Publications, 2003.
- Sayer, Andrew, *Method in social science: A realist approach*, 2nd edition. Sage Publications, 1992

- Shadish, William R., Cook, Thomas D., & Campbell, Donald T., *Experimental and quasi-experimental designs for generalized causal inference*. Boston: Houghton Mifflin, 2002.
- Shulman, Lee, Paradigms and programs. In M. C. Wittrock (Ed.), *Handbook of research on teaching*, 3rd edition. Macmillan, 1986. Reprinted separately by Macmillan, 1990.
- Trend, Maurice, On the reconciliation of qualitative and quantitative analyses: A case study. In T. Cook & C. Reichardt (Eds.), *Qualitative & quantitative methods in program evaluation*. Sage, 1979.
- Thompson, Bruce. Statistical significance and effect size reporting: Portrait of a possible future. *Research in the Schools* 5(2), pp. 33-38 (1998)
- Zentella, Ana Celia. Integrating qualitative and quantitative methods in the study of bilingual code switching. In Edward H. Bendix (Ed.), *The uses of linguistics. Annals of the New York Academy of Sciences*, vol 583 (1990).