#### **International Journal of Doctoral Studies**

Cite as: Bernauer, J. A., Semich, G., Klentzin, J. C., & Holdan, E. G. (2013). Themes of tension surrounding research methodologies education in an accelerated, cohort-based doctoral program, *International Journal of Doctoral Studies*, 8, 173-193. Retrieved from http://ijds.org/Volume8/IJDSv8p173-193Bernauer0397.pdf

# Themes of Tension Surrounding Research Methodologies Education in an Accelerated, Cohort-Based Doctoral Program

James A. Bernauer, George Semich, Jacqueline Courtney Klentzin, and E. Gregory Holdan Robert Morris University, Pittsburgh, PA, USA

> <u>bernauer@rmu.edu;</u> <u>semich@rmu.edu;</u> klentzin@rmu.edu; holdan@rmu.edu

#### Abstract

This single-site investigative action research study used an insider research strategy using selfdirected focus groups comprised of the four participants/researchers. These "four voices" include the Program Director of the doctoral program in instruction and leadership, a recent program graduate, and two faculty members who teach the quantitative and qualitative components of the program. Survey data from students represent the "fifth voice". The focus of our research was to discuss the most effective ways to prepare doctoral students to use research methodologies in an accelerated, cohort-based doctoral program. Qualitative data from the focus groups were coded independently by two of the researchers to promote credibility and the secondary data set ("fifth voice") was used to evaluate student views. The analyses produced five themes that describe the experiences and understandings of the participants in regard to research methods preparation as well as seven recommendations for rebalancing methods curriculum and methods instruction in order to improve practice. In order to triangulate findings, student data served as a corroborating voice. From the analyses and interpretation of these data, the following program changes were made to the research methodology courses: (1) a team-taught integrative methods course for qualitative and quantitative design was initiated; (2) a related course sequence change that places statistics in the more logical position of following rather than preceding research design; and (3) the formation of an ad-hoc committee that is currently examining the qualifier exam (largely methods) with the intention of restructuring it based on student feedback that suggests perhaps a more project-based assignment reflecting changes made to qualitative and quantitative methods courses and incorporating a subject or content-specific focus.

Key Words: Higher Education, Research Methodologies, Action Research, Insider Research, Accelerated Program

Material published as part of this publication, either on-line or in print, is copyrighted by the Informing Science Institute. Permission to make digital or paper copy of part or all of these works for personal or classroom use is granted without fee provided that the copies are not made or distributed for profit or commercial advantage AND that copies 1) bear this notice in full and 2) give the full citation on the first page. It is permissible to abstract these works so long as credit is given. To copy in all other cases or to republish or to post on a server or to redistribute to lists requires specific permission and payment of a fee. Contact <u>Publisher@InformingScience.org</u> to request redistribution permission.

## Introduction

Executive-type doctoral programs like the one described here, are becoming more commonplace in the United States due primarily to student needs and expectations. As noted in *Full-time Leaders, Part-time leaders* by Erickson, Howard, Borland, and Baker (2004), "the traditional doctoral student is disappearing in today's educational leadership programs – a trend that is emerging in other professional disciplines as well" (p. ix). Presently, Harvard University and the University of Pennsylvania offer three year fast-tracked doctoral programs in educational leadership that meet the demands of working educational professionals. Given that this development in doctoral programs is relatively new, it becomes somewhat difficult to evaluate these programs in terms of their value compared to traditional programs. Most of the faculty in the Instructional Management/Leadership Program (IMLP) at Robert Morris University (the university discussed in this paper) are products of the more traditional programs and consequently they have had to make modifications in their teaching approaches when working with doctoral students in the accelerated program. In the IMLP, faculty find it necessary to meet frequently as a part of a continuous improvement model to address student and program needs, and these frequent interactions have helped establish more collegial and collaborative relationships. In fact, many of the faculty who helped design and write the program are currently teaching and advising in the program. The idea of frontloading methodology courses was the collective effort of the faculty who wanted to prepare doctoral students to begin the dissertation process at the start of the second year of formal study. In addition to the methodology courses, a curriculum course and dissertation seminars also provide students with the exposure and opportunity to examine possible topics for their research study. Within the content of each methodology course, there is a concentrated effort among faculty to solicit ideas and illustrate examples of how student topics might match to different paradigms, research designs, and data collection methods. In addition, student writing is shared among faculty to support and guide them to research problems that are worthy of further research. This collegial relationship among faculty is considered a fundamental strength of the IMLP where the doctoral faculty are an integral part of the decision-making process.

Like similar executive type, compressed or accelerated doctoral programs (Metz, 2001; Page, 2001; Shulman, Golde, Bueschel, & Garabedian, 2006), the Ph.D. program in Educational Leadership at Robert Morris University has wrestled with the issue of methodology education. Although this program is housed within the School of Education and Social Sciences, cohorts have been comprised of students from the fields of nursing, business, higher education, elementary and secondary education, and the military. In addition, while students in the initial cohorts were exclusively from the USA, the most recent five cohorts have had students from Cameroon and Saudi Arabia with applicants now pending from additional countries. As more accelerated doctoral level programs incorporate expected three-year completion dates, doctoral students have less time to investigate, use, and reflect upon the various research methodologies. Yet, these students are expected to attain "educational research literacy" (Lin, Wang, Spalding, Klecka, & Odell, 2011) and to then employ research methods effectively for their dissertations and degree completion. Since the program we describe is primarily an educational leadership program, a greater emphasis is on research related to higher education and Pre-12 schooling. However, there have also been students in every cohort from the corporate and non-profit sectors so leadership issues are also addressed in these areas. Hence, many students elect to choose topics related to the program concentrations that include leadership/management, curriculum, and technology. While these topics can be investigated using a range of both quantitative and qualitative approaches, students seem to see their topics primarily through qualitative lenses. While this predilection for qualitative approaches presumably reflects a match between chosen topic and approach, faculty also have suggested that it may also be influenced by the fact that the qualitative course precedes the quantitative course and thus students make an early decision to adopt the qualitative approach. In addition, faculty also does not discount the rather well-known dislike of statistics.

In order to ensure timely student graduations, many of these accelerated doctoral programs (including the program described here) utilize a less flexible curriculum than traditional programs so students are unable to supplement their research interests by taking advanced courses as electives. Additionally, these programs are often cohort-based, aimed at working professionals, and offered in an "executive style" where students spend little time on the physical campus and, consequently, the development of relationships with other scholars beyond their immediate classroom contact is minimal. Therefore, curriculum planning is critical to ensure that the research methodology competencies are met in this environment of curricular rigidity and time constraints where students complete coursework and dissertation work simultaneously.

#### Problem Statement and Research Questions

Based on the above considerations, the following Problem Statement was articulated: What is the best way to prepare students in an accelerated, cohort-based doctoral program to effectively use research methodologies? Further, the following research questions based on this central research question were the primary focus of this action research study:

- (1) How can we most effectively offer research methods courses in an accelerated program that meets the needs of our doctoral students?
- (2) What modifications should be made to offer methodology courses that have more utility for promoting quality dissertation research studies?
- (3) What, if any, methodology sequencing changes could be made to better address the needs of students in the program?

#### Statement of Purpose

The purpose of this qualitative research study is three-fold. First, it is intended to inform future decisions regarding the doctoral program curriculum and educational services offered at Robert Morris University. Second, because of shared concerns regarding the issue of methodology in doctoral programs, this study will hopefully add to the developing literature on the topic and inform conversations among faculty who are facing this same instructional challenges. Third, it is hoped that the methodology used here will inspire other doctoral faculty and administrators to embark on critical self-studies in order to improve practice. This article includes a brief review of the literature as it relates to methods preparation in doctoral programs in education and the social sciences, a description of the methodology used for data collection and analysis, results coupled with comments for illustrative purposes, and a list of recommendations for improvement.

## **Review of the Literature**

The discussion of research methodologies in the social sciences is a rich and contentious one (Levine, 2007). Whether one argues that techniques for data collection and analysis stem from epistemology (Knight & Cross, 2012; Pallas, 2001) or that a direct link between the two cannot be assumed (Bryman, 1984), how a scholar chooses to investigate a research question is integral to the shape and scope of his or her study. Methodology is a foundation piece for the discovery of new knowledge and thus extremely important to social science researchers who are often torn between quantitative and qualitative research strategies. This battle has been played out in the literature for decades under the banner of the "Paradigm Wars" (Gage, 1989; Onwuegbuzie, 2002) with researchers offering alternatives to the debate mainly in the form of pragmatism/mixed methods (Johnson & Onwuegbuzie, 2004; Tashakkori & Teedle, 2003) and problemcentered/action research (Barnett & Muth, 2008). Of course, subsumed under the "paradigm wars" are fundamental philosophical differences including ontological, epistemological, axiological, as well as methodological differences between the two traditions (Creswell, 2007). It may well be the case that these philosophical differences, which often remain subconscious and hence unspoken among faculty, may in fact prevent productive dialogue and result in a rather simplistic description of quantitative methods as focusing on numbers while qualitative methods focus on words and images. In addition, we have found that barely concealed below the surface of these dialogues is sometimes a hint of disdain for the opposing tradition.

Doctoral students in the social sciences are especially impacted by the continued division among the research methodologies and are often disadvantaged by the very nature of their doctoral programs because of a lack of "pedagogical culture" (Wagner, Garner, & Kawulich, 2011). In the literature, student engagement with various research methodologies is often viewed as a social interaction that takes place within certain scholarly communities (Metz, 2001; Pallas, 2001). Those studying in the "hard" or physical sciences work within a traditional framework that absorbs student researchers into a specific community, namely, a research team that collaboratively works on the same project. Often, a student's individual dissertation evolves from these collaborative efforts. Methodology instruction, discussion, and practice are embedded into this community and can be absorbed by students over the course of the project in addition to any formalized training they receive. Delbanko (2012) points out that students in the physical sciences are the recipients of a culture where incremental progress can be demonstrated versus those in the humanities who "remain concerned with preserving truth by rearticulating it rather than advancing truth by discarding the old in favor of the new" (p. 95).

Social science students have been referred to as "lone wolves" where they are expected to choose an individual dissertation topic, are not usually attached to a research team (Deem & Brehony, 2000), receive little funding, and have fewer assistantship opportunities (Levine, Abler, & Rosich, 2004). Their primary exposure to research methodologies is through coursework, with a large contingent of these students in the "Amorphous Field" of education (Levine, 2007) having limited prior engagement with methods theories (Lin et al, 2011), having little or no experience conducting a research study at the undergraduate level and often finding the educational research process and subsequent results in conflict with their teaching-focused worldview (Labaree, 2003; Levine, 2007).

Scholars have offered various ideas regarding how doctoral faculty can better prepare their students to use research methodologies effectively. These include advocating a pragmatic approach to research and training students in both methodological traditions (Onwuegbuzie & Leech, 2005), having the individual student's methodological choice influence their personal curriculum (Creswell & Miller, 1997), exposing students to a diversity of epistemologies (Pallas, 2001), taking a scientifically-based approach to the research process and focusing methodological training on action research projects in order to promote self-reflection in relation to methodological assumptions and choices. However, a critical examination of the existing literature found that one of the research "gaps" is the lack of discussion about the "challenges of teaching and learning specific aspects of research methods" (Wagner et al., 2011, p. 82) and that there is currently no "well-informed approach to teaching" (p. 83) in this regard.

Some doctoral programs have attempted to enact curricular changes with various levels of success. While scholars might be able to agree on some general principles or set of "constraints" surrounding methods education, the different ways institutions and programs implement change and what changes will be successful are dependent upon the culture and personalities of the individual cases (Schoenfeld, 1999), as exemplified by the following two examples.

Metz (2001) discusses the purposeful creation of an interdisciplinary community of practice at the University of Wisconsin-Madison where the School of Education initiated a three credit interdisciplinary pro-seminar that was team taught by professors who espoused different research methodologies. This seminar was followed by a one credit seminar where students discussed their own work. The intent of the two-part seminar was not so much to train the students as researchers but, rather, to have them "see that there is an underlying research process common to very different kinds of work [and] appreciate how dissimilar research traditions still included strategies to deal with each critical element of the common research process" (p. 13). It should also be noted that the pro-seminar changed significantly in the first few years of its existence in order to better serve students' needs by becoming more student-driven and problem-centered in nature.

Part of the University of California, Riverside's (UCR) review of the education doctorate curriculum was the creation of a "Methodology Task Force" (Page, 2001). Comprised of four faculty members with two members from each methodological tradition, the group first surveyed the faculty and then began developing curriculum that they felt would better engage students with research methodologies. They recommended a mandatory year-long methodology course that would be team taught by a quantitative professor and qualitative professor, which was dubbed the M-Strand. The faculty eventually adopted a modified version of the M-Strand, in addition to other curricular changes. The initiative experienced both success and challenges. Most successful was "persuading students that doing research is a compelling activity" (p. 23). Less successful was convincing students that educational research is about advancing knowledge ("students more often saw the mini-projects as personally satisfying, rather than as contributions to established specializations in educational studies" (p. 23)); helping students make informed methodology choices ("quantitative and qualitative research proved unequally attractive to students" (p. 23)); and explicitly comparing methodologies ("intent on affirming the value of both methods, the instructors may have minimized the deep differences that divide them" (p. 23)). Page does, however, offer an approach for programs struggling with methodological instruction issues:

It may be that managing the curricular and institutional dilemmas and sustaining the changes in curriculum will depend on thinking about the School as a community of amicable dissention. Rather than posing irreducible differences in intellectual and epistemological perspectives as a problem to eliminate, differences would be recast as essential to understanding the complex processes inherent in education and other social science areas. Indeed, the differences would require not only respect, but also a pledge to see that differences persist within a collegial context. Consequently, a doctoral program could not retreat to either a narrowly specialized curriculum or an amorphous, academic version of the melting pot. Instead, it would attempt to create a relationship characterized by a mosaic that reflects the complexities inherent in phenomena and the corresponding approaches required to capture these complexities. After a year of operation, UCR's Graduate School of Education demonstrates how unsettling yet intriguing this relationship can be. (p. 24)

Knight and Cross (2012) discuss an approach to doctoral methodology based on the need to take into account research constructs and contexts. Although this approach was originally developed in relation to web design, the idea that the researcher's "point of view" is the starting point of the critically-important conceptual phase of research is consistent with a constructivist approach for learning. This focus on the conceptual (rather than research methods per se) is also consistent with recognizing that phenomena are complex and that no one particular approach holds a monopoly on understanding these complexities.

In any event, the complexity of methods evolution (Leech & Goodwin, 2008) has prevented the development of a "best practices" document (Wagner et al., 2011) and there has been little empirical research done in this vein since 2001 (Leech, 2012). This can be viewed as either a problem for curriculum developers or as an opportunity to exercise academic freedom in the construction of unique programs. Whichever the case, doctoral faculty are left to decide what they should do in order to facilitate student learning of research methodologies.

## **Design and Rationale**

Based on the perspectives of qualitative research by Weirsma and Jurs (2009), the authors of this current study have opted to implement a funnel approach which began with general questions and concerns of the methods faculty and from student participants in the program. Mills (2007) identified Action Research as "a natural part of teaching." Teachers are continually observing students, collecting data, and changing practices to improve student learning and the classroom

and school environment. Action research provides a framework that guides the energies of teachers toward a better understanding of why, when, and how students become better learners." One of the key features of practical action research is that teacher (faculty) researchers have decision-making ability. The doctoral faculty have the ability to make decisions in the Robert Morris University doctoral leadership program as a part of a continuous improvement model adopted and defined by the Director of the Program from the very beginning of the program. All decisions and subsequent changes in the program are decided by the entire faculty including possible changes related to methodology including those that were recommended based on this study.

## Description of the Site-Based Action Research Project

Robert Morris University began offering an accelerated, cohort based Ph.D. program in Educational Leadership" through the School of Education and Social Science in 2005. The term *accelerated* in this context refers to one of the attributes of an executive style doctoral program that includes a compressed time period of three years. Students are primarily working adults in the fields of business, nursing, higher education, and primary-secondary education. Some students, particularly a growing number of international students, devote their time exclusively to doctoral work. Students complete 3 - 6 credits each during the three two-week intensive summer sessions, and one 3 credit course every eight weeks during the traditional academic year. Classes take place from 6 PM to 10 PM one evening per week. Because of this accelerated schedule, in-class instruction is supplemented with a Learning Management System (LMS) where students are engaged with the instructor and classmates during the week. This supplemental work is focused on problem solving and other ways to enrich in-class instruction.

The program consists of a sequential curriculum, which must be completed by all students. The students must take 12 credits of methods courses including a general introduction to research entitled Critical Readings in Educational Research, Qualitative Research, Quantitative Research, Statistics, and Program Evaluation. This sequence seems fairly typical of Education doctoral programs (Leech & Goodwin, 2008). The full course of study is shown in Table 1:

Additionally, students are required to pass a qualifying exam, which currently consists of three essay questions (curriculum, qualitative methodology, and quantitative methodology), and conceive/complete/defend a dissertation. Students work on the dissertation while simultaneously completing their required coursework. Most students defend their dissertation in the spring of their third year but have the option to extend their program participation for up to seven years. While the faculty is fully aware of the attraction of a three-year doctoral program, considerable discussion usually ensues at monthly faculty meetings in regards to program quality. There is a continual challenge to satisfy both the three year time frame and the goal of rigor and quality. The Program Director (PD) reminds faculty on a regular basis that the program operates on a "continuous improvement" model. As a result of this focus on continuous improvement, revisions to course offerings, course objectives, and course sequencing have all occurred and continue to occur since the inception of the program. These revisions have emanated both from faculty discussion as well as from the results of student feedback that is obtained from annual surveys – the "fifth voice".

Year 1	Year 2	Year 3	
Summer (6 credits total) Critical Readings in Research	Summer (6 credits total) Leadership Practicum I Managing Instructional Technology	<b>Summer (8 credits total)</b> Dissertation Seminar III Communities Schools and Families	
Applying Instructional Technology	wanaging instructional reenhology	Managing the Instructional Environ- ment	
Fall (6 credits total)	Fall (8 credits total)	Fall (8 credits total)	
Instructional Leadership in	Dissertation Seminar I	Dissertation Seminar IV	
Curriculum Planning	Leadership Practicum II	Writing for Publication	
	Instructional Leadership in Program	Managing Finances and Budgets	
Qualitative Research	Evaluation		
	Effective Practices in Supervision		
Spring (6 credits total)	Spring (8 credits total)	Spring (6 credits total)	
Statistics	Dissertation Seminar II	Dissertation Seminar V	
Quantitative Research	Leadership Practicum III		
	Law and Ethics in Education		
	Best Practices in Teaching and		
	Learning		

Table 1 - Sequential Course Schedule for IML Doctoral Program

Since its inception, program administrators have documented student choice of dissertation methodology as seen in Table 2.

Cohort	Qualitative	Quantitative	Mixed	Total
Cohort 1	7	3	0	10
Cohort 2	9	3	2	14
Cohort 3	7	2	0	9
Cohort 4	9	0	6	15
Cohort 5	8	0	5	13
Cohort 6	7	0	7	14
Total	47	8	20	75

Table 2 – Dissertation Methodology Selection by Cohort

It is clear from Table 2 that a qualitative approach has been the most frequent choice among Educational Leadership doctoral candidates over the years where no purely quantitative dissertation has been completed during the past three cohorts. However, it is also noteworthy that mixed methods studies have increased among the more current cohorts. Considering the fact that there is currently only one class devoted to qualitative methods versus two for quantitative methods, various interpretations of these facts run the spectrum from students' distaste for quantitative methodology (perhaps at least partially rooted in a fear of statistics as revealed to faculty by students), to a lack of available data, or failure to obtain the necessary permission to conduct experimental research in the classroom and/or work setting. However, there has been a higher level of success in integrating quantitative and qualitative concepts during the doctoral program where time factors and sample size are perhaps not as much of an issue. However, faculty have found that assessing the quality of mixed methods studies is more challenging than assessing a single pedigree approach. It might also be argued that the field of Instructional Leadership and the questions that are asked simply lend themselves more to qualitative approaches. Of course, just as in most other complex decisions, a combination of these factors probably underlie students' penchant for choosing qualitative approaches.

Tables 3 and 4 provide a more detailed look at this case from the standpoint of retention/attrition, acceptance/rejection rates, and graduation totals.

	Completed Yearly Course Work	Passed Qualifier	Defended Dissertation - Graduated
Cohort 1 (10)	9	9	9
Cohort 2 (15)	14	14	14
Cohort 3 (15)	9	9	9
Cohort 4 (16)	16	16	16
Cohort 5 (15)	13	13	10
Cohort 6 (15)	14	14	6
Cohort 7 (15)	14	14	-
Cohort 8A (18)	18	15	-
Cohort 8B (17)	17	13	-
Cohort 9 (20)	20	-	-

Table 3 Summary of 2011-2012 – IML Doctoral Students Completing Each Cohort Year

In terms of the history of the program, the Instructional Leadership Ph.D. program was started in the summer of 2005. Table 4 shows the number of students accepted in the program, the total number of students who applied to the program, and finally the total number of students who graduated in three years or more and received their degrees.

Table 4. No. of Doctoral Applicants Accepted, No. Applied, and No. Graduated

	No. Accepted	Number Applied	Number who graduated 3yrs.
Year 1	10	29	8
Year 2	15	41	14
Year 3	15	43	9
Year 4	15	55	16 (1 Cohort 3)
Year 5	15	34	10
Year 6	15	60	8
Year 7	15	72	?
Year 8	36	100	?
Year 9	20	70	?

## Methodology

For this study, the researchers used a methodology based upon the Evered and Louis (1981) conception of insider research, also referred to as "inquiry from the inside." This type of research strategy "carries with it the assumption that the researcher can best come to know the reality of an organization by being there, by becoming immersed in the stream of events and activities, by becoming part of the phenomena of study" (p. 388-398). The epistemology upon which this particular methodology is based differs from that of traditional research conducted by objective outsiders in that "fundamental to it is the belief that knowledge comes from human experience, which is inherently continuous and nonlogical, and which may be symbolically representable" (Evered & Louis, 1981, p. 389) and which lends itself well to a qualitative approach whose "providence" is the "world of lived experience" (Denzin & Lincoln, 2011, p. 2). Although originally inclined to examine this qualitative study using a case study design, the authors came to realize that the nature of this research required collecting and transforming data into understandable constructs or themes in order to answer our research questions. Based on this realization, we decided to use an action research approach. As McMillan (2012) stated, "implementing action research gives practitioners the tools to think more systematically about the effectiveness of practice" (p. 34). This statement perfectly captures the purpose of why the four participants met to discuss and try to resolve our methodological concerns. Action research can also incorporate both quantitative and qualitative approaches.

The purposeful selection of the four participants (who are also the authors-observers) or four "voices" consists of doctoral program insiders who were "already immersed in the organization and [had] built up knowledge of the organization from being an actor in the processes being studied" (Brannick & Coghlan, 2007). Each participant represented a different category of stake-holder consisting of a Qualitative Methodology Instructor (QUAL), a Quantitative Methodology Instructor (QUAN), the Educational Leadership Program Director (PD), and a recent Educational Leadership Program Graduate (PG). These participants were able to offer their own unique perspectives and lived experiences within the case by engaging in a series of three unstructured conversations addressing the topic of methodology instruction in the Educational Leadership program. Each conversation lasted about 90 minutes and was recorded by two of the researcher/participants. The conversations were primarily experience-based narratives on the part of those faculty teaching quantitative and qualitative methods in the program.

The two participants (subset of the four) who recorded these conversations used different methods in order to independently analyze the conversational data. The Program Graduate (PG) employed a traditional phenomenological technique based on Cresswell (2007), which itself is a streamlined version of the Stevick-Colaizzi-Keen data analysis procedure described by Moustakas (1994). This technique requires the epoche/bracketing of the researcher's own biases; the transcription of the conversations to promote intense engagement with and continued reflection of the data; member checks of these transcriptions by the participants to ensure research credibility; phenomenological reduction, which includes reflection, the horizontalization of significant statements; and the clustering of themes both through imaginative variation and the reduction/synthesis process in order to capture the essence of the phenomenon from text.

The Qualitative Research Instructor (QUAL) simultaneously pilot tested a new analytical method that he developed referred to as "oral coding". Using this method, QUAL first listened to all three conversations in their entirety as recorded digitally on a laptop without taking any notes in order to get an overall appreciation of the perspectives of participants -- a gestalt -- of what was being discussed, why it was being discussed, and an appreciation of the tone and positions of the participants. Following this initial analysis, QUAL listened to each conversation again on the original recording software while simultaneously using a second device to orally identify and record categories, emerging themes, as well as In Vivo codes and quotes. QUAL recorded these quotes

from the first recording device to the second recording device in order to capture the actual voices and inflections of the participants. QUAL simultaneously began interpretation by recording his reflections related to how these categories, themes, and participant voices began to provide answers to the research questions. The second recording device thus served as both a data reduction and data synthesis tool that is similar in purpose to qualitative analysis software programs such as NVivo. Although this method is largely untested, the fact that it preserves the original voices of the participants and allows for a close temporal "injection" of researcher reflection may help to foster creative insights that will hopefully find their way into the final report to the doctoral faculty. The hoped-for advantage of this new method is to save time that is needed for transcribing as well as to extend the amount of direct exposure of the researcher with the original voices instead of textual transcription. This extended engagement allowed the researcher to discern emotion, inflection, and discourse.

As one of the final steps in the analysis process, QUAL and the PG used peer checking to compare, contrast, discuss, and synthesize their separate analyses. This final step served to not only foster trustworthiness of data, but also afforded each participant-researcher the opportunity to explain her and his "take" on the data. It was found that QUAL and PG identified very similar themes with little variability in interpretation. This was encouraging not only because two different researchers were drawn to the same findings (and ultimate conclusions), but it also provided some assurance that oral coding yielded similar results as the transcription approach – a kind of concurrent validation. The credibility of the results was further ensured by the PG's member check of transcripts and sharing of results with all participants while still in draft form.

Student questionnaires provided a "fifth voice" in the triangulation process. In the program, all doctoral students are given a summative survey that covers the broader spectrum of the curriculum in addition to other aspects of the program, such as advising, seminar work, and policies, upon program completion. This data set provided an opportunity for this team of researchers to both explore and relate information from a variety of key participants ("voices") in the leadership doctoral program. Further, one of the members of the research team (PG) actually completed her degree as a member of Cohort III and is now a professor and university research librarian so she was able to offer multiple perspectives for this study. The other members of the research team all have more than a decade of graduate and doctoral teaching experience and hold a teaching rank at the Associate Professor level or higher in teaching quantitative and qualitative methods.

## **Ethics Discussion**

In this study, the four researchers were also the four study participants. All author/participants were well versed in human subjects protection practices and understood that their participation in this study was voluntary and that they could withdraw at any time with no adverse consequences. All author/participant comments were taken into consideration during every stage of the study in order to ensure that each participant was heard and represented fairly. All researchers participated in every focus group conversation, participated in member checks of the transcriptions to ensure that their words expressed their intent, contributed various written components of the final document, and reviewed and provided feedback for each study draft. The participants were all stakeholders in the program and have worked together in other research studies. While the group setting was conducive to free, unrestricted dialogue among participants, it also revealed some points of contention although these areas were generally not noticeable due to the general rapport among participants. While quantitative and qualitative methodologists can respect and even like each other, we found that there is no denying that perspectives and preferred "ways of knowing" diverge. However, we all agree that this type of diversity amidst an atmosphere of respect is exactly what the academy is supposed to embody!

## **Results**

Based on the coding and analysis of data from the focus groups involving the four voices and the analysis of the survey data from the "5th" voice comprised of doctoral students, five major themes or, perhaps more appropriately, tensions were revealed relative to the methodology courses. These themes describe the current state of methods instruction for Educational Leadership Ph.D. students and can be understood as five tensions that exert counter influences on methodology instruction. From a student perspective, while these tensions may potentially limit instructional effectiveness, the uncovering or discovery of these tensions has actually resulted in insights in relation to our original research question: "What is the best way to prepare students in an accelerated, cohort-based doctoral program to effectively use research methodologies?"

These are the five tensions:

- 1. "Cart before the Horse"
- 2. Methodology Inequity
- 3. "Who are you?"
- 4. "Why are we here?"
- 5. Personality Dynamics

In this section, the themes are first described followed by summaries from the conversational texts for illustration purposes. If applicable, the theme's relationship to findings from the literature is also presented. Although these summaries are just a subset of the conversations, they are included here because they were thought to capture the richness as well as the essence of the conversations.

## Theme #1: "Cart before the Horse"

This theme speaks specifically to the placement of methods instruction within the existing curriculum and its impact of student success and dissertation methodology choice. It consists of two subthemes: "Methods before Content" and "Methods Placement"

#### Subtheme A: Methods before content

In the current Educational Leadership curriculum, all methods courses are taught within the first full year of the program followed by two years of more content-driven instruction (Table 1). As a result, the participant/researchers perceived this "front-loading" of the methods course sequence as a contributing factor to a lack of creative and reflective research question development on the part of the students because it de-emphasizes the subsequent content courses and often leads to students' obsession with methodologies. In effect, the methodology becomes the driver for many students' studies as opposed to the research questions, which can lead to many "false-starts" and general frustration on the part of students, faculty, and administrators. What follows are summaries of conversations.

**Program Director:** It's the methodology that will drive the study. Some students say that they can gather data and build their study from this. If we really have people with passion for a particular topic, it may lead them into exploring that topic and then that leads them to a methodology. My fear is that given the fact that the methods classes are frontloaded and given the fact that we start the dissertation after the first year, it is the methodology that is driving the process. That can be bad. Many of them don't have experiential background in either of the methodologies. Maybe further reading may be a starting point because many of our students don't have this background. What are your thoughts?

**Program Graduate:** One of the complaints that my cohort had was that while the degree is "Educational Leadership" we didn't get to any content courses during the first year. We had the curriculum class and that was it. Then we had all research methodologies. Then we had content courses over the next two years with leadership and a variety of different topics. I have a feeling that students are now choosing methodologies first before research questions because methodology is front-loaded into the program Methodology is perceived as "this is incredibly important" and then all of a sudden the students have to identify a dissertation topic after methodology has been the focus.

Notably, the participants also discussed the fact that there have been very few "leadership" focused dissertations (the presumed focus of the Educational Leadership doctoral program) conducted over the program's history. They speculated that this might be due to the fact that most leadership content courses do not appear in the curriculum until the second year, which occurs after students may have already chosen dissertation topics. In effect, the front-loading of methods courses comprise an unintended hidden curriculum where students learn that methods are of primary importance in their doctoral education, which appears to subvert the stated mission of the program.

#### Subtheme B: Methods placement

The participants also discussed the placement of methods courses in the curriculum and described how student movement through the established methods course sequence builds student biases against future methods courses, which might explain the preponderance of qualitative methods in dissertations (Table 2).

Here the Quantitative Instructor (QUAN) describes what he finds during the Spring term following the previous Fall term where students were exposed to qualitative methodology by the Qualitative Instructor (QUAL) --

**Quantitative Instructor**: One of the things we know is that students are turned off to quantitative methods because they have qualitative first, which looks easy. "Just go out and jump in!" By the time they get to me, they are close-minded. I'm not doing quant! That's the thing I'm running into.

The other thing is that the Qualitative Instructor "has these students doing something in qualitative where they spend time collecting data and writing articles. Then they get to me and say I'm not doing this because I already have a direction."

## Theme #2: Methodology Inequity

This theme describes the contact time students spend with method experts in the classroom. In the current Educational Leadership curriculum, qualitative methods instruction consists of three credits of dedicated instruction while quantitative/statistics consists of six dedicated credits in addition to the Critical Readings course, which is a three credit course that leans towards using quantitative examples. Here the Program Graduate (PG) describes her experiences due to the front loading of methods courses.

**Program Graduate**: I did a qualitative dissertation. I really felt that when I was done [with the methods coursework] I had a better sense of quantitative and how that would work because I had three courses that talked about it. I only had one course in qualitative, which was in my first semester. So here I am two years later trying to do a phenomenological design after I only had eight weeks on qualitative two years ago. I had to do a whole separate literature review about phenomenology to try and figure out what I needed to do in order to be able to do it effectively. Interestingly, the majority of students opt to utilize qualitative methodologies in their dissertations despite this inequity in course credits favoring quantitative methods as seen in Table 2 that bolsters the Theme #1/Subtheme B methods placement/bias finding. (This seeming contradiction might speak to the course sequencing, which puts qualitative research ahead of quantitative research and statistics or rather it might simply be statistics anxiety. The author/researchers acknowledge that more work needs to be done in order to better understand student methods choices.)

# Theme #3: "Who are you?" or Understanding the Methods "Other"

It became apparent during the conversations that the QUAN and QUAL were learning about each other's class content as part of the data gathering process, which begs the question of how much mutual understanding currently exists among the methods instructors as evidenced by the follow-ing exchanges among all four participants: Quantitative Instructor (QUAN,) Qualitative Instructor (QUAL), Program Director (PD), and Program Graduate (PG).

#### Exchange #1:

**Quantitative Instructor:** Here's what I did in my class this time, which I think worked well. They already had Stats... So as we got about halfway through, I started loading SPSS and as we talked about a particular design we input some data or we used them. (Small sample but who cares.) I let them do it. "Here. Put it in and press these buttons." "Is that all there is to it?" "Yeah." Conceived in the context of "Oh. Is this all there is?" "Yeah."

QUAL: Now, is your class called Quantitative?

QUAN: Yes.

QUAL: Is it actually a course on design?

QUAN: Yes.

**Qualitative Instructor (QUAL):** Then why don't we call it that? Quantitative includes all three of those things: design, measurement, and statistics.

**Program Director:** Well that all falls under the category of "methodology," which is why he touches on all three of those.

**Quantitative Instructor**: It's hard for me to teach my course without touching on statistics. You can't not do it.

#### Exchange #2:

**Program Graduate:** I think the problem is that research methodology is the first thing. When you show up you have those first two weeks in the summer that are just...gone. You are lucky if you retain anything.

QUAL: What's "gone" in the summer?

**Program Graduate:** When a student comes in, the first thing they have what I call the Ph.D. boot camp. Those two weeks where we have [the Critical Readings course] with [Instructor] who does general research methodology stuff but it's super-fast...

QUAL: What does [he/she talk] about?

It became obvious during this dialogue that these faculty members don't know what each other emphasize in their classes. This finding is somewhat ironic since the program was designed to foster student cohesion – what about faculty cohesion? To borrow a phrase from technology, faculty seem to interact primarily in an asynchronous rather than a synchronous manner in regard to both their teaching and their research.

## Theme #4: "Why are we here?" and other Ontological Tensions

This theme describes an underlying tension that emerged from the data, which relates to the perceived purpose of the methods courses. Specifically, the participant/researchers discussed whether the methods instructors were expected to provide students with a good, general understanding of the specific methodologies or supply the students with a comprehensive skill set needed to walk out of the classroom and feel immediately confident in conducting a research study. The QUAL and QUAN instructors both asserted that the research methodologies courses cannot produce expert researchers and that students need to complete their methodology education independently or with the assistance of their dissertation advisor as seen by the following exchange.

**Quantitative Instructor:** What does the student need to do? You learn about all these methodologies but you're not supposed to become an expert. You are supposed to know that it's there. The big idea is you pick one of those [methodologies] that will answer your question and do it. Not do everything. Do it. That's the whole idea. You are a student. You are not going to be a master. It's your first time of doing real research and reading about it is different than doing it. Now after you do it, then you say "Now I understand." Then if you choose to do another kind of methodology that you didn't do before...you can call, you can ask, you can read about it, and then you do it.

**Qualitative Instructor:** For the first time ever I told this latest cohort "Don't think for a minute after this eight week class that you are competent to do qualitative research. You're not. You did a study and we talked about some things but you need to keep reading about things like interviewing, data analysis, coding, designs, etc."

This collective perception held by QUAL and QUAN is in conflict with the current curriculum, which emphasizes/front-loads the methods courses with the expectation that these methodological courses will fully prepare students for the dissertation experience. In addition, methodology as learned from these front-loaded courses comprises the bulk of the qualifying exam content.

## Theme #5: Personality Dynamics

All participant/researchers discussed the phenomenon of the individual cohort personality and how each group of students exhibits different strengths and weaknesses. This theme is comprised of two subthemes: "Cohort as Collective" and "Independent Scholar Support."

## Subtheme A: The cohort as collective

This subtheme speaks to the collective personality that emerges as a cohort progress through the Educational Leadership program and how these different cohort traits challenge instructors and program administrators working within a fixed curriculum as evidenced by the following exchange between the Quantitative Instructor (QUAN) and the Program Director (PD).

**Quantitative Instructor:** But the cohort that just went through - they all came in knowing what they wanted to do from Day 1. They knew...then the cohort after can't do anything. They are so unread that they don't know what they want to do. They are looking for a topic. It's very different. I'm not sure if it's right or wrong how we have this. There's something about the makeup of the cohort.

**Program Director:** I can't explain the differences in cohorts, the chemistry of the cohort that makes it work, what's the driving force that some people like... cohort A is so competitive in a sense of all wanting to complete. A greater showing of people attending other's dissertations, support of their work, information sharing in class in terms of sources, directions to take people to talk to...It's been an entirely different experience for me. I don't know how to do that. Right now I can't explain Cohort B when compared to Cohort A when we look at their qualifications.

Interestingly, while this theme speaks to the difference among groups, it calls to mind the work of Meyer, Shanahan, and Laugksch (2005) who, when looking at individual perceptions of research and research methods, determined that "despite [postgraduates] comparatively elite status (compared with undergraduates) and, in all likelihood, exposure to 'research methods' training, it is clear that the sample that they substantively constitute does not exhibit a uniform approach to conceptualizing research or the research process" (p. 236). These group differences put even more pressure on educational planners to develop a curriculum that would best fit a wide variety of student types.

#### Subtheme B: Independent scholar support

**Qualitative Instructor**: Those of us who attended traditional doctoral programs benefitted from the supplemental methods and support opportunities. These type of opportunities are not currently offered by most Educational Leadership programs especially to part time students.

At (University A), they had support people who would help you work on data analysis. In other words, you didn't have to be the guru of analysis because there was a whole office there that you could go to...I think here we expect students to be able to do all that themselves. Maybe that's good. But what's the probability of someone coming into this program who is weak or has no background in statistics or quantitative methodology actually learning enough to do a good dissertation and do it themselves? I don't know.

QUAL also discussed how his tenure as a full-time doctoral student and "immersion" in campus culture positively impacted his own doctoral experience, which is in keeping with Metz (2001) and Pallas (2001).

**Quantitative Instructor:** The cohort thing puts on time pressures that are contrived. Like D------ is doing her [data collection] now because she is going to lose her...whatever. If we had another year – not that I want another year – I didn't go through a cohort but most of us kind of stuck together but I was immersed. We had a residency requirement up there. I was immersed on campus. It was just different.

In essence, the Robert Morris University Educational Leadership program expects more from students in terms of independent work regarding methods comprehension and skill development but provides fewer avenues for methods support and more time pressures than that of traditional programs. Despite adjustments in admissions criteria and procedures, the needs of cohorts are difficult to ascertain prior to the formation of each cohort. Once accepted, the fixed curriculum does not allow for any "on the fly" adjustments in response to student feedback or instructor perceived deficiencies. Unlike traditional programs, students are not provided the opportunities to choose among a collection of possible courses in order to address their own perceived deficiencies. Taken together, these limitations put pressure on faculty to create a methods instruction system that best supports students.

# The "Fifth Voice" – Graduates of the IML Doctoral Program

In order to provide additional credibility, the researchers examined historical student survey data. These surveys included a series of Likert scale questions and comments regarding the research methodology courses. The Likert scale questions focused primarily on the following areas: course content, amount of credits hours per course, sequence of methodology courses, and the value of the courses relative to the dissertation. For this area, the student cohorts Strongly Agreed (67.0%) that the content taught in their methodology courses were of value. However, the amount of time allotted for each course and the sequence received limited support (26.0%). As for the value of the courses relative to the dissertation, there was strong support (76.0%) for the methodology courses. The comment sections provided some interesting insights with students recommending both the combining of methodology courses "for real application" and/or the addition of more methodology courses to complement existing courses. Also, the students expressed a disconnect between the methodologies courses and the practicum/dissertations processes and advocated a more integrative approach, which they felt would help them select appropriate dissertation topics: in short, tighter connections between methodology instruction and what they are expected to produce within the timeframe of this compressed doctoral program. Additionally, some students wanted to have the technology courses restructured in a manner that the software programs NVivo and SPSS would be exclusively taught from the technology perspective in the technology classes. Other students felt that frontloading all methodology courses provided little opportunity for selection of possible topics that may be discussed in content courses, especially in the leadership courses.

Although by some definitions our students might be considered full-time since they take six credits per term, their cultural experience is one of a part time student where essentially their connection to campus life is limited to weekly attendance at a night class. As Gardner and Gopaul (2012) describe in their case study of ten part-time doctoral students, these students inhabit a world characterized by significant work and family demands that require institutional flexibility and support. Socialization serves as the framework for the Gardner and Gopaul study, and it is quite clear that part-time students do not typically attain the same level of socialization with campus life or with faculty as do full-time students. However, it has been our experience since the inception of the cohort-based doctoral program that socialization and interaction among students themselves is quite vibrant. This bonding among students lends strength to the "fifth voice" that influences both instructional and administrative decisions.

# **Recommendations for Balance**

The following recommendations derived from the previously described themes and student data, provide potential solutions or alleviations to the existing tensions and, therefore, can be understood as an attempt to balance. The recommendations have been grouped into two topical clusters for ease of readability: Curriculum Balancing and Instructor Balancing. Each of these clusters is comprised of a series of recommendations, which could be adopted in whole or in part. These recommendations are intended to spark discussion not only among Robert Morris Educational Leadership stakeholders but also those affiliated with similar doctoral programs who are also struggling with methods instruction.

## **Curriculum Balancing**

These recommendations address the issue of placement of methods courses within the curriculum and their current implementation as discrete units, namely, Qualitative, Quantitative, and Statis-

tics. Additionally, they speak to the supplementation of methods courses with additional, more individualized instruction based on student needs.

**Recommendation A:** Doctoral faculty and administrators restructure the current order of courses and put content courses in the forefront thereby refocusing the program allowing and students to engage more with and reflect more upon possible research agendas.

**Response to Recommendation A**: Given the nature of the program in a suggested three year time frame, it would be difficult to re-sequence methodology courses and insert content courses. The only sequence change made was moving Statistics after revised Research Methods 2. However, more emphasis on content application in leadership and curriculum within Research 1 and Research 2 met with the approval of both faculty team teaching in the methodology courses.

**Recommendation B:** Doctoral faculty and administrators adopt a Design-Measurement-Analysis model, similar to the M-Strand (Page, 2001) where qualitative and quantitative methodologies are taught in concert. While the success of the M-Strand is mixed, it can at least provide equal contact time with both methods traditions, thereby alleviating any inherent curricular inequity that might exist as well as any student methods bias based on previous coursework.

**Response to Recommendation B:** The methodology faculty agreed to team teach qualitative and quantitative methods in an integrated format over two eight week sessions. The new courses will be listed as Research 1 and Research 2.

**Recommendation C:** Doctoral faculty and administrators understand that the limited contact time and differing cohort personalities indicate that flexibility should be built into the system in order to respond to specific cohort needs. One possible implementation strategy to consider would include providing "just-in-time" workshops to fill skill gaps for individuals based on individual needs and, in effect, allow students to drive supplemental methods instruction (Metz, 2001).

**Response to Recommendation C:** Doctoral students now have required seminars one Saturday per month that correlates with the work they are doing on specific chapters. For example, Dissertation Seminar 1 relates directly to Chapter 1 of the dissertation with four meetings over a semester period. Faculty are encouraged to attend Saturday sessions for the "just in time" workshops to provide individual help to doctoral students.

**Recommendation D:** Doctoral faculty might also consider adopting a practice common in K-12 education where students with disabilities are provided with Individual Expectation Plans (IEP) based upon individual student needs and deficiencies in order to compensate for the current lack of individual student support opportunities. While lack of methodological understanding is not a disability, the IEP may provide an established method for program administrators to chart doctoral student progress and identify gaps in education that can be addressed pro-actively in order to minimize frustration and conflicts later on.

**Response to Recommendation D**: The notion of implementing an IEP for doctoral students is not really a new idea, especially to traditional programs where course selection is an option. A doctoral committee is presently looking at a timeline to be established for each student in the second year of formal study. This timeline would enable administrators along with faculty to chart continuous progress for each individual candidate and make recommendations at the end of the second year as to what students should be on schedule to complete the dissertation and what students will be moved to a four year plus plan. The notion of a four year plan is a product of the authors' discussion of the methodology courses.

## Instructor Balancing

This recommendation cluster speaks to increasing instructor communication and engagement with methodological frameworks with which they might not feel initially comfortable in order to ensure that there is a shared understanding of the role of methods in the doctoral student experience.

**Recommendation A:** Doctoral faculty and administrators facilitate communication among methods instructors. This could take the form of a standing methods subcommittee (Page, 2001) comprised of the doctoral faculty who are charged with sharing syllabi, reporting on their course content, and discussing issues related to methods instruction.

**Response to Recommendation A**: Curriculum review meetings are now being planned for periodic review of course syllabi to address issues related to redundancy, overlap, and missing critical content.

**Recommendation B:** Doctoral faculty and administrators participate in team teaching/integrating teaching within Quantitative and Statistics and between Quantitative and Qualitative (Metz, 2001) in order to learn from one another as well as encourage scholarly conversations among the methods specialties, which would provide the students with a deeper understanding of methods content and push methods development further.

**Response to Recommendation B:** As noted above, Quantitative and Qualitative Methods courses are now being team taught and are listed as Research 1 and Research 2.

**Recommendation C:** Doctoral faculty and administrators provide faculty development opportunities for instructors to work with many different types of research designs in order to increase faculty research methodology self-efficacy.

**Response to Recommendation C:** To better provide opportunities for all doctoral faculty to grasp a better understanding of research designs in both qualitative and quantitative methodology, research methodology faculty will be asked to do methodological information presentations that focus on research designs at monthly doctoral meetings.

# **Study Limitations**

Limitations always exist as a result of the chosen research population and rationale, which, in this case, is a single university bounded to a specific doctoral program in Education and the Social Sciences. This study by its very nature, describes a unique situation within a specific place and at a particular time. Transferability, therefore, may be limited because information learned in the study cannot be immediately and directly applied to other contexts but must be first considered and adapted if they can be effectively applied in other situations.

# **Reflection/Conclusions**

As doctoral programs move towards three year completion times, issues regarding methodological instruction arise because students have less time to fully engage with methods and develop the skills needed to successfully complete their degree requirements than they would have in a traditional seven year program. In order to address this challenge, this qualitative research study asked the question: What is the best way to prepare students to effectively use research methodologies in an accelerated, cohort-based doctoral program? Based on an analysis of three conversations held by a cross-section of Robert Morris University Educational Leadership program stakeholders, the researchers identified five themes of "Cart before the Horse," Methodology Inequity, "Who are you?," "Why are we here?," and Personality Dynamics. Taken together, these themes describe the current tensions inherent in methods instruction within the doctoral program format. The analysis also identified two sets of recommendations for balance, which have been categorized under the headings of Curriculum Balancing and Instructor Balancing. These two suggestions aimed at "balancing" seem consistent with Pascarella and Terenzini's findings (2005) that student engagement and teaching in colleges can be positively impacted by interdisciplinary collaboration across the curriculum. These recommendations are not intended to be understood as a panacea or "silver bullet" for accelerated, cohort-based doctoral programs because of the varying institutional cultures that make each program unique. However, the researchers felt a degree of accomplishment that these recommendations were supported by the doctoral faculty and administrators which will, in fact, contribute to ongoing conversations about methods instruction improvement. Given the nature of this Ph.D. program on leadership, this is very much in keeping with a continuous improvement model.

#### References

- Barnett, B. G., & Muth, R. (2008). Using action-research strategies and cohort structures to ensure research competence for practitioner-scholar leaders. *Journal of Research on Leadership Education*, 3(1), 1-42.
- Brannick, T., & Coghlan, D. (2007). In defense of being "native": The case for insider academic research. *Organizational Research Methods*, 10(1), 59-74.
- Bryman, A. (1984). The debate about quantitative and qualitative research: A question of method or epistemology? *British Journal of Sociology*, 35, 78-92.
- Creswell, J. W. (2007). *Qualitative inquiry & research design* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Creswell, J. W., & Miller, G. A. (1997). Research methodologies and the doctoral process. In L. Goodchild, K. E. Green, E. L. Katz, & R. C. Kluever (Eds.), *Rethinking the dissertation process: Tackling personal and institutional obstacles* (pp. 33–46). San Francisco: Jossey-Bass.
- Denzin, N. K., & Lincoln, Y. S. (2011). The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4th ed.) (pp. 1-20). Thousand Oaks, CA: SAGE.
- Deem, R., & Brehony, K. (2000). Doctoral students' access to research cultures: Are some more equal than others? *Studies in Higher Education*, *25*(2), 149–167.
- Delbanko, A. (2012). College, what it was, is, and should be. Princeton, NJ: Princeton University Press.
- Erickson, J. L., Howard, R. D., Borland, K. W., & Baker, L. (2004). *Full-time leaders: Part-time learners*. Lanham, MD, USA: Scarecrow Education.
- Evered, R., & Louis, M. R. (1981). Alternative perspectives in the organizational sciences: "Inquiry from the Inside" and "Inquiry from the Outside". Academy of Management Review, 6(3), 385-395.
- Gage, N. L. (1989). The paradigm wars and their aftermath. Educational Researcher, 18(7), 4-10.
- Gardner, S. K. & Gopaul, B. (2012). The part-time doctoral student experience. *International Journal of Doctoral Studies*, 7, 63-78. Retrieved from <a href="http://jds.org/Volume7/IJDSv7p063-078Gardner352.pdf">http://jds.org/Volume7/IJDSv7p063-078Gardner352.pdf</a>
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Knight, S., & Cross, D. (2012) Using contextual constructs model to frame doctoral research methodology. *International Journal of Doctoral Studies*, 7, 39-62. Retrieved from http://ijds.org/Volume7/IJDSv7p039-062Knight234.pdf
- Labaree, D. F. (2003). The peculiar problems of preparing educational researchers. *Educational Researcher*, 32(4), 13-22.

- Leech, N. L. (2012). Educating knowledgeable and skilled researchers in doctoral programs in schools of education: A new model. *International Journal of Doctoral Studies*, 7, 19-37. Retrieved from <u>http://ijds.org/Volume7/IJDSv7p019-037Leech325.pdf</u>
- Leech, N. L., & Goodwin, L. D. (2008). Building a methodological foundation: Doctoral-level methods courses in colleges of education. *Research in the Schools*, 15(1), 1-8.
- Levine, A. (2007). Educating researchers. Washington, DC: The Education Schools project.
- Levine, F., Abler, R., & Rosich, K. (2004). Education and training in the social behavioral, and economic sciences: A plan of action (Report to the National Science foundation). Washington, DC: National Science Foundation.
- Lin, E., Wang, J., Spalding, E., Klecka, C. L., & Odell, S. J. (2011). Toward strengthening the preparation of teacher educator- researchers in doctoral programs and beyond. *Journal of Teacher Education*, 62(3), 239-245.
- McMillan, J. H. (2012). *Educational research: Fundamentals for the consumer*. Upper Saddle Creek, NJ: Pearson Publishers.
- Metz, M. H. (2001). Intellectual border crossing in graduate education: A report from the field. *Educational Researcher*, 30(5), 12-18.
- Meyer, J. H. F, Shanahan, M. P., & Laugksch, R. C. (2005). Students' conceptions of research. I: A qualitative and quantitative analysis. *Scandinavian Journal of Educational Research*, 49(3), 225-244.
- Mills, G. (2007). Action research: A guide for the teacher (3rd ed.). Upper Saddle River, NJ: Pearson Publishers.
- Moustakas, C. E. (1999). *Phenomenological research methods* (6<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications.
- Onwuegbuzie, A. J. (2002). Positivists, post-positivists, post-structuralists, and post-modernists: Why can't we all get along? Towards a framework for unifying research paradigms. *Education*, 122(3), 518-530.
- Onwuegbuzie, A. J. & Leech, N. L. (2005). Taking the "Q" out of research: Teaching research methodology courses without the divide between quantitative and qualitative paradigms. *Quality & Quantity: International Journal of Methodology 39*, 267–296.
- Page, R. N. (2001). Reshaping graduate preparation in educational research methods: One school's experience. *Educational Researcher*, 30(5), 19-25.
- Pallas, A. M. (2001). Preparing education doctoral students for epistemological diversity. *Educational Researcher*, 30(5), 6–11.
- Pascarella, E. T., & Terenzini, P. T. (2005). How college affects students: A third decade of research. Edison, NJ: Jossey-Bass.
- Schoenfeld, A. (1999). The core, the canon, and the development of research skills: Issues in the preparation of educational researchers. In E. Lagemann & L. S. Shulman (Eds.), *Issues in education research: Problems and possibilities* (pp.166-201). San Francisco, CA: Jossey-Bass.
- Shulman, L. S., Golde, C. M., Bueschel, A. C., & Garabedian, K. J. (2006). Reclaiming education's doctorates: A critique and a proposal. *Educational Researcher*, 35(3), 25–32.
- Tashakkori, A., & Teedle, C. (2003). Issues and dilemmas in teaching research methods courses in social and behavioural sciences: US perspective. *International Journal of Social Research Methodology*, 6(1), 61-77.
- Wagner, C., Garner, M. & Kawulick, B. (2011). The state of the art of teaching research methods in the social sciences: Towards a pedagogical culture. *Studies in Higher Education*, 36(1), 75-88.
- Wiersma, W., & Jurs, S. (2009). *Research methods in education: An introduction*. Boston, MA: Pearson Education.

# **Biographies**



James A. Bernauer, Ed.D. is an Associate Professor in the School of Education and Social Sciences at Robert Morris University in Pittsburgh. He has an MBA as well as a Masters and Doctorate from the University of Pittsburgh in Administrative and Policy Studies. He teaches doctoral level courses in qualitative research and program evaluation and research methods courses at the masters level. His areas of interest include research methodology as well as instructional effectiveness in higher education especially the integration of technology and pedagogy. He recently co-authored a book for Sage entitled "Quantitative Research for the Qualitative Researcher".



**George Semich**, Ed.D. is the director of the Instructional Management/Leadership doctoral program at Robert Morris University. He was the former chair of the Communications Department at RMU and the former chair of the Secondary Education and Graduate Studies Department. Semich also serves as editor for two publications and publishes primarily in the area of technology, curriculum, learning theory, and general education theory and practice.



**Jacqueline Courtney Klentzin**, Ph.D. is a University Professor of Learning Resources and Public Services Librarian at Robert Morris University. Her research interests include library science/information literacy, issues in higher education, children's literature/literacy, and qualitative research methods.



**E. Gregory Holdan** Ph.D. is an Associate Professor of Mathematics and Education at Robert Morris University. He has a Masters in Mathematics a Ph.d. in Curriculum and Instruction from Penn State University. He also holds a secondary Mathematics Supervisor's certificate and a secondary Principal's certificate. Before joining the faculty at RMU, he taught mathematics and computer science in a suburban Pittsburgh high school for 32 years. At RMU he teaches undergraduate mathematics in the School of Science, Engineering, and Mathematics and Quantitative Methodology at the doctoral level. His research interests include reflective teaching and learning, assessment, and instructional strategies.