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Engaging in the Battle of the Snails by Challenging the Traditional Dissertation Model

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ABSTRACT

Tensions arise with regard to appropriate research preparation and dissertation experiences for students who have as a career goal the conducting of context-based research to solve problems of practice (Hochbein & Perry, 2013; Shulman, Golde, Conklin Bueschel, & Garabedian, 2006). Schön (1995) describes "technical rationality[,] the prevailing epistemology built into the research university" (p. 27), as a primary impediment to programs that attempt to develop practitioner scholars. In this paper, we define technical rationality and explore the epistemological challenges it presents to faculty. Next, we describe a critical incident illustrating how conflicting epistemologies between programs and graduate schools impact students and faculty. Finally, we make recommendations for policies and practices that could better support doctoral work conducted from a range of epistemological approaches.

Keywords: practitioner scholarship, doctoral education, dissertation in practice, co-authorship, constructionist epistemologies

INTRODUCTION

As Gary Anderson (2017) asserted in the recent special issue of *QSE, Scholars Respond to the Trump Regime,* neoliberalism has strengthened an audit culture that narrowly defines high quality research as postpositivist, experimental, and removed from the daily experiences of educators and students in schools. Federal policies, funding streams, and faculty members in institutions of higher education reinforce standards for such research, which influence the socialization and training of future generations of researchers. Doctoral students experience this socialization through methods courses and through their demonstrations of mastery of research in the dissertation process. Students and faculty conducting research using theories and methodologies other than those rewarded by neoliberalism must often creatively negotiate these policies and practices. Faculty members who advise practitioner scholars in EdD programs must often engage in such negotiation. Practitioner scholars are:

> Professionals who bring theoretical, pedagogical, and research expertise to bear on identifying, framing, and studying problems of practice and leading informed change in their schools and districts to continually improve learning conditions for students and adults who work within their local contexts. (Adams, Bondy, Ross, Dana, & Kennedy-Lewis, 2014, p. 366)

The embedded nature of practitioner scholarship challenges faculty members to provide appropriate research preparation and dissertation experiences for EdD students who have as a career goal the conducting of context-based research to solve problems of practice (Hochbein & Perry, 2013; Shulman et al. 2006).

Traditional values and shared institutional expectations for what the dissertation process and product should entail have evolved with the rise of the modern American research university. Schön (1995) traces this evolution to the second half of the 19th century when European ideals for research universities began to replace the values embodied in American liberal arts colleges and reflected "technical rationality[,] the prevailing epistemology built into the research university" (p. 27). Technical rationality frames: (a) social problems as composed of discrete parts rather than interdependent systems; (b) problems as solvable through basic research approached using postpositivist research designs; and (c) knowledge as accumulating through a process of incremental and linear progress (Anderson & Herr, 1999; Carr & Kemmis, 1986; Schön, 1995). Technical rationality justifies narrowly defined conceptions of what counts as valid and reliable research, and frames rigor as a

qualification that can only be accomplished by an objective researcher detached from contexts and systems (Anderson & Herr, 1999).

Practitioner scholarship, the focus of many contemporary EdD programs, poses an epistemological challenge to technical rationality by situating problems of practice within a context and embracing the researcher's embedded role as a stakeholder in that context. Ravitch and Lytle (2016) argue that the positioning of practitioners as producers of knowledge "represents a 'constructive disruption' of some understandings of the relationships of knowledge and practice" (p. 3). Practitioner research has emerged from a history of international movements to shift research paradigms in order to better address social problems (Anderson, Herr, & Nihlen, 1994). Rather than adopting the technical rational view that the researcher's subjectivity should be controlled and limited, practitioner scholarship foregrounds the researcher as an agent of change and positions the research process as a vehicle for change. Its purpose is not to protect a phenomenon from researcher bias in order to describe the phenomenon but rather to insert informed understandings or practices in a context in order to transform it. In this process, the researcher is also transformed. Because both context and researcher change through acts of practitioner scholarship, technical rational understandings of knowledge, which presume an unchanging context, have little use. Practitioner scholarship challenges technical rationality and represents a fundamentally different epistemological approach (Anderson & Herr, 1999; Cochran-Smith & Lytle, 2005; Dill & Morrison, 1985; Schön, 1995; Zeichner & Noffke, 1998).

Challenges to technical rationality can cause tensions between faculty members who disagree about what counts as research and rigor. Anderson and Herr (1999) stated, "practitioners [and we would argue faculty members] intuitively know that when they challenge the norms, the institution's dynamic conservatism will often respond in a self-protective manner" (p. 17). Challenging technical rationality is risky and uncomfortable, but also necessary to unseat this paradigm and develop institutional systems that make room for paradigms that adequately support and explain research conducted outside of technical rationality and that may better address social problems. Schön (1995) explained:

> All of us who live in research universities are bound up in technical rationality…hence, introducing the new scholarship into institutions of higher education means becoming involved in an epistemological battle. It is a battle of snails, proceeding so slowly that you have to look very carefully in order to see it going on. But it is happening nonetheless. (p. 32)

In this paper, we explore the particular case of practitioner scholarship in the EdD to challenge the orthodoxy of postpositivism and the five-chapter dissertation model that it often supports in the field of education. We begin by examining existing scholarship that describes how EdD programs have engaged in the battle of snails, particularly with regard to creating appropriate dissertation experiences. Next, we describe a critical incident experienced by the authors of this paper that illustrates how conflicting epistemologies between programs and graduate schools impact students and faculty. In reflecting upon the critical incident and analyzing its impact, we argue for the inclusion of collaboration and co-authorship as accepted processes and products of the dissertation. Finally, we make recommendations for higher education policies and practices that could better support doctoral work conducted from a range of epistemological approaches.

CONCEPTUALIZING CONTEMPORARY EdD DISSERTATIONS

Teachers College at Columbia University granted the first Education PhD in 1891 and Harvard offered the first EdD in 1920 (Anderson, 1983; Dill & Morrison, 1985). Harvard began offering an EdD so that the School of Education could replace the Graduate School in granting a doctoral degree in a field focused on applied rather than basic research (Dill & Morrison, 1985), which may have marked the beginning of the epistemological battle of snails. The epistemological underpinnings of programs shape several program components, including the content of the dissertation research, the approach to the research process, and the format of the research product (see Figure 1). We define the content of the research as what students do for their capstone/dissertation project (e.g. build new knowledge about a topic of interest or investigate a solution to a problem of practice); the process of research is how the content is addressed or studied (e.g. individually or collaboratively); and the format of the research product is what is submitted to the committee as a demonstration of mastery (e.g. a five-chapter dissertation or a series of journal articles). Each of these areas provides terrain for the battle of snails.

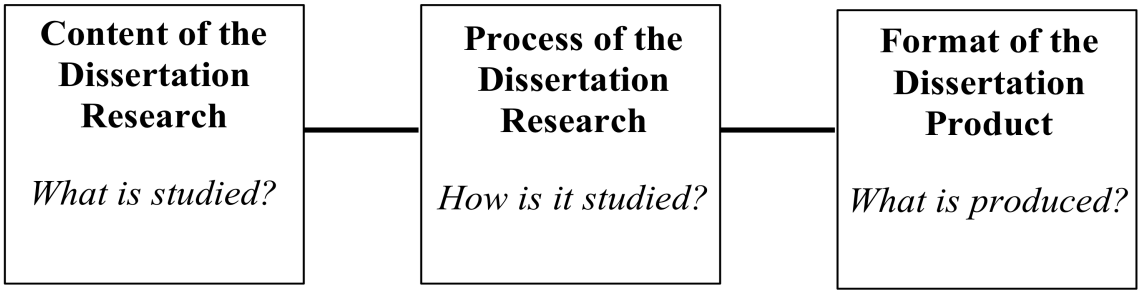

Figure 1. Components of the dissertation process shaped by programs' epistemologies

Contents of the Dissertation Research

The Carnegie Project on the Education Doctorate (CPED) provides a forum for the development of the professional practice doctorate (Shulman et al., 2006). In 2007, CPED invited EdD-granting institutions to join the organization in redesigning the EdD to more closely align the research content, process, format, and preparation to the goals of practitioner scholarship (Buss, Zambo, Zambo, Perry, & Williams, 2017; CPED, 2016a). CPED distinguishes the EdD dissertation as a "dissertation in practice," one that focuses on "a persistent, contextualized, and specific issue embedded in the work of a professional practitioner" (CPED, 2016b, Decision-Concepts section, para. 7). By acknowledging and promoting contextualized, evolving interrelationships between scholar, knowledge, and application, the dissertation in practice reflects a constructionist epistemology underlying practitioner scholarship. This epistemological foundation positions practitioner scholarship to bridge the divide between research, theory, and practice. Practitioner scholars can study complex educational issues that perpetuate social injustices in particular contexts and figure out how to improve them in collaboration with relevant stakeholders. The shift from accumulating discrete pieces of academic knowledge, presumably isolated from context and application, to continually contextualizing understandings and addressing problems of practice require fundamentally different approaches to the research and may result in fundamentally distinct dissertation products.

Approaches to the Dissertation Research Process

CPED does not offer guidelines on how dissertation research should be conducted, but the values placed on collaboration and social justice have implications for the research process. Some EdD programs have incorporated collaboration into dissertation research, which challenges the "traditional perspective of the lone investigator laboring away on her or his research project" (Murphy & Vriesenga, 2005, p. 47). Archbald (2008) asserted that few details are available to describe collaborative dissertations but concluded from existing literature that group approaches derive from faculty members' recognition that collaboration is an important component of the work of practitioner scholars. According to Archbald's review, group-based dissertations include both individual and group components.

Here, we distinguish between two types of collaboration: (a) the joint work of a doctoral student or group of students and a senior scholar in pursuit of the senior scholar's research agenda; and (b) the interdependent pursuit of a commonly identified problem of practice among multiple stakeholders who systematically study and address that problem. In the first of these two versions of collaboration, a hierarchical power relationship positions the senior scholar as research guide and mentor and the student(s) as learners in the process of conducting the research. We call this type of collaboration *vertical collaboration*. Vertical collaboration supports the goals of technical rationality. A second version of collaboration deconstructs traditional power relationships and positions collaborators as co-constructors of all parts of the research process, from the articulation of the research dilemma through the pursuit of addressing that dilemma and to the production of the documentation of the process and circulation of the results. This type of collaboration reflects constructionist epistemologies and can better serve the purposes of practitioner scholarship. We call it *horizontal collaboration*. Archbald's (2008) review addressed dissertations that involved horizontal collaboration and reflected the distinct research paradigm of practitioner scholarship.

Formats of the Dissertation Product

Since dissertations in practice may address content and use research processes distinct from traditional dissertations, students and faculty seek formats for the final dissertation products that similarly reflect the epistemological foundations of practitioner scholarship. However, faculty members who, as Schön (1995) points out, are themselves steeped in technical rationality, have difficulty imagining alternatives. A number of surveys of EdD-granting institutions have been conducted over the past half century examining differences in research preparation and dissertation products between EdDs and PhDs (e.g., Anderson, 1983; Archbald, 2008; Dill & Morrison, 1985; Murphy & Vriesenga, 2005). These surveys have consistently shown that while the goals of the two degree programs typically differ, the implementation rarely does; EdD and PhD research courses are often indistinguishable and the five-chapter, sole-authored dissertation genre abounds. A common exception to this format is one in which introduction and conclusion chapters bookend a sequence of co-authored articles. These articles are written through a process of vertical collaboration between professor and students in the development of technical rational research. We call these *vertical collaboration formats*.

Philosophers of science and education have developed paradigmatic alternatives to technical rationality that support practitioner scholarship, and the literature base documenting culminating tasks that differ from the five-chapter, sole-authored dissertation and vertical collaboration formats is growing (e.g., Archbald, 2008; Belzer & Ryan, 2013; Dana, Bondy, Kennedy-Lewis, Adams, & Ma, 2016; Dawson & Kumar, 2014; Murphy & Vriesenga, 2005; Ravitch & Lytle, 2016). Archbald (2008) summarizes, "Alternatives proposed in the literature include portfolios, internships, analytical papers, and collaborative projects" (p. 705). He then critiques the paucity of literature examining the breadth, depth, and effectiveness of those products in supporting the goals of practitioner scholarship, pointing the way for future research. In the specific field of educational leadership, Murphy and Vriesenga (2005) contacted 161 EdD programs and found that only eight included dissertation formats that differed from the sole-authored, five-chapter genre, and only four institutions had fully developed and consistently implemented those models. All four programs offered multiple formats for the final project and incorporated collaboration as a key component of their culminating tasks.

The Roles of Academic Policies and Faculty Socialization in Regulating Dissertation Production

Faculty members at research universities learn how to advise doctoral students through a process of socialization that begins with their own experiences as doctoral students and is guided and regulated by academic policies and at various institutional levels (Austin, 2002; Weidman, Twale, & Stein, 2001). The socialization process transmits from one generation of faculty to the next the values, priorities, and modes of work integral to a technical rational system. The epistemological foundation supporting this system positions the mastery of doctoral level knowledge and research skills as developed within individuals and possessed by those individuals as opposed to being socially constructed and communally

possessed. Doctoral students who successfully demonstrate mastery within this system, which arguably requires either the adoption or the creative manipulation of the epistemological assumptions of technical rationality, go on to become the faculty members who write and implement the academic policies that reinforce and perpetuate these values and assumptions. Such policies are not neutral, but instead regulate this socialization process to ensure ultimate adherence to outcomes that promote technical rationality even if doctoral students and/or faculty members enact creative resistance that asserts alternative epistemologies and paradigms.

Such policies exist at various institutional levels, including the program, department, school, college, and graduate school. As background research for this manuscript, we conducted a review of policies at both the program and graduate school levels at all CPED member institutions[1]. Institutional policies could be categorized as: (a) not directly stating specific requirements for the dissertation research process or product at either the program or graduate school levels, (b) providing specifications at one level, or (c) providing specifications at both levels. Policies articulated at the graduate school level typically endorsed the sole-authored five-chapter dissertation or manuscript models, reflecting technical rational paradigms. Some policies at the program level supported challenges to technical rationality by endorsing horizontal collaboration or alternative dissertation formats.

In some cases, the inherent tensions between the assumptions of technical rationality and practitioner scholarship appeared in the policies themselves. For example, the University of Southern California's Educational Leadership program policy stated:

> The EdD in Educational Leadership program offers innovative thematic dissertation groups, in which students work collaboratively with faculty and practitioners from the field to study a contemporary problem in educational leadership…students write individual dissertations, but access their faculty group leaders and fellow group members for support, literature and research design recommendations, and feedback on drafts. (University of Southern California, 2016)

This policy both validates the horizontal collaboration supported by constructionist epistemologies, especially by including educational practitioners as experts in the research process, and also reinforces technical rational values that require individual demonstrations of knowledge and skills. A policy that enabled a constructionist epistemological alignment between research process and product would either articulate the endorsement of a research product produced through horizontal collaboration or else leave the determination of an end product open to a faculty member's or dissertation committee's determination, which could intentionally challenge technical rationality. However, this policy demonstrates how epistemological tensions play out either implicitly or explicitly in policy language, which also symbolizes the tensions that play out between and among doctoral students and members of dissertation committees. The role of policy in arbitrating these tensions is never neutral, even when policies do not require technical rational demonstrations of knowledge, because the milieu of the research university perpetuates the values of technical rationality even when these values are not explicitly articulated in policy or consciously acknowledged by faculty. In the battle of snails, policies and practices end up supporting one side or the other, whether that process occurs consciously or unconsciously on the parts of individual students or faculty members involved. Next, we describe a critical incident illustrating how this battle impacted two EdD students and their faculty advisor.

A CRITICAL INCIDENT ILLUSTRATING THE BATTLE AND ITS IMPACT ON STUDENTS AND FACULTY

Context

As part of her faculty appointment, Brianna advised students in an EdD program designed to develop practitioner scholars as defined by CPED. In practice, the EdD program culminated with a doctoral dissertation that often looked similar to the PhD dissertation in content, research process, and format, though faculty continued to explore alternatives that could better prepare practitioner scholars. The EdD program was housed in the College of Education, which contained PhD and EdD programs. These programs varied with regard to goals, target student populations, and faculty perspectives on CPED principles. Although EdD programs enrolled significant numbers of students, preferences toward traditional PhD research over practitioner scholarship were reflected in many aspects of the college, such as in the types of research courses offered and required. Faculty regularly worked to inform colleagues about the purpose as well as the programmatic aspects of their EdD program, and often worked through, around, and in spite of misunderstandings about, and disregard for, the EdD as a valid and high quality doctorate. The critical incident described next occurred as Brianna advised two EdD students, Ana and Miriam on their dissertation. The incident illustrates one attempt to work through, around, and in spite of institutional limitations. It demonstrates how actions of institutional agents can result in the reinforcement and perpetuation of technical rationality even, and perhaps particularly, when these norms are challenged.

The Critical Incident[2]

When completing their EdD program, both Ana and Miriam worked in early childhood education settings in Miami, Florida. They brought critical stances to the roles of standardization, accountability requirements, and narrow definitions and assessments of quality in early care and education (ECE). In Ana and Miriam's local context, predominantly Latina immigrants working with Latinx[3] children negotiated tensions between ECE quality improvement demands and their personal, cultural, and linguistic assets and beliefs. Miriam was interested in contested definitions of "quality" ECE, and

[1] Listed members as of August 1, 2016 as per CPED's website http://cpedinitiative.org/consortium-members

[2] Although we did not set out to collect data using Flanagan's (1954) critical incident methodological technique, we adopt Cope and Watts' (2000) definition of the term as "an emotional event [that represents] a period of intense feelings, both at the time and during its subsequent reflective interpretation" (p. 114). Critical incidents can be used to elucidate important, but often neglected, theoretical issues manifested in everyday life.

[3] The "x" at the end of Latin is used in lieu of the "a" or "o" typically used in the Spanish language in order to avoid reinforcing a gender binary and instead representing a range of gender identities (see Reichard, 2015).

exploring how ECE professionals with varied roles understand and represent the construct. Ana was interested in ECE practitioners' perspectives of effective professional development (PD) and their ethnic, cultural, linguistic, and professional assets as well as their perceived PD needs. Ana's and Miriam's independent studies addressed an overarching, complex problem of practice: the marginalization of the voices and experiences of ECE practitioners in Miami. This problem of practice affected the daily work of both authors in their respective ECE settings.

Ana and Miriam did not occupy the same professional roles or consistently work together, but their professional paths had crossed before enrolling in the program and they shared experiences facilitating PD for local ECE practitioners. Both students subscribed to Campbell and Wasco's (2000) constructivism, which understands reality and knowledge as socially constructed, and social factors such as gender, race, class, culture, and economics as shaping perceived realities. After two years of coursework, the students began their written qualifying examinations, which included preparing a dissertation proposal that they developed with feedback from Brianna before presenting to their committees. As Brianna provided feedback on each student's first chapter, she noticed complementarity in their professional contexts, epistemological stances, problems of practice, perspectives, interests, and skills, and suggested they consider collaborating on their dissertation. In addition, Brianna recognized the potential of jointly exploring the interrelated problems of practice in the students' shared ECE context, believed horizontal collaboration to be necessary for creating educational change, and believed that encouraging such collaboration would benefit the students and their work. Using her academic freedom as an advisor, Brianna committed to seeing how the partnership evolved to best suit the students' individual and shared goals.

Brianna first consulted program colleagues about forming dissertation committees for both students that were composed of the same members, and then consulted with the committee regarding the students' collaboration. The committee agreed to allow the collaboration to develop organically with the understanding that each student would conduct independent, related research. At this point, the committee tip-toed toward supporting horizontal collaboration, without articulating it as such, while still preserving the values placed on individualistic demonstrations of knowledge as promoted by technical rationality. Each of the dissertation committee members had been socialized into technical rationality and, therefore, preserved a core value of this paradigm while simultaneously supporting the broadening of the dissertation process to reflect the values of practitioner scholarship. While engaging in this difficult balancing act with no examples to guide their decision making, the committee agreed that Ana and Miriam's horizontal collaboration could include co-authorship. Here, committee members relied upon the technical rational value placed upon their own academic freedom as committee members in encouraging the horizontal collaboration in both the research process and dissertation product. The committee did not, however, explicitly frame the decision-making process in terms of the battle of snails, but rather implicitly negotiated tensions between expectations for traditional dissertations and appropriately responsive expectations for practitioner scholars.

After the successful defense of a co-authored three-chapter dissertation proposal, which would become the first chapters of the dissertation, Brianna and the students regularly discussed their independent research and its collaborative intersection. While committee members had endorsed co-authorship in the proposal, they did not articulate any distinction between collaboration and co-authorship during the following year that Ana and Miriam co-authored their dissertation. The students' collaboration seamlessly included co-authorship and neither students nor advisor saw a need to distinguish between them.

Through the processes of collaboration and co-authorship, Ana and Miriam deepened their individual thinking and produced work more sophisticated and rigorous than would have been expected of them individually. Although they asked separate research questions, performed distinct data collection and analyses, and conducted their studies in different languages, they supported each other at each stage. Ana and Miriam engaged in collaborative and critical reflection and writing processes that challenged them to position both studies within their broader Miami ECE context to widen potential impact. They described collaboration and co-authorship as so important to their work that Brianna and the students agreed that the students would craft a co-authored final document. This document would clearly articulate their individual contributions and the specific nature of their collaboration while also weaving together both studies within the students' shared context and the broader field. Such a product would seem to meet the norms of technical rationality that supported individual demonstrations of knowledge while also building upon the horizontal collaboration characteristic of practitioner scholarship and maximizing the importance and effectiveness of this work for the students.

To guide the students in this process, Brianna consulted the Graduate School guidelines regarding collaboration and co-authorship, and, finding conflicting policies—one stating that co-authorship was not allowed and another stating that co-authorship should be noted and cited appropriately—presumed that the part of the policy that named the supervisory committee as responsible for the quality of the dissertation was meant as the fundamental guiding principle. Brianna had used her professional judgment to determine that the students had conducted high quality work and that their collaborative process and co-authorship developed their individual skills in ways that would benefit their roles as practitioner scholars. Brianna trusted that committee members' feedback at the dissertation defense would determine the final format submitted to the Graduate School.

Despite the Graduate School's official position on deferring to the chair and committee to determine quality and its claim to judge first submissions based solely on compliance with the formatting template rather than content, the students' co-authored dissertation document was immediately rejected by a non-faculty Graduate School editor due to its having two authors. The explicit co-authorship of the document violated the implicit norms of technical rationality and was rejected by an institutional agent who unconsciously guarded and enforced technical rational norms despite the explicit position stated by the Graduate School that such an action was beyond the scope of the roles of the editors. The powerful norms of technical rationality dictated the rejection of this enactment of horizontal collaboration. Graduate School editors performed the work of foot soldiers in the battle of snails with little awareness of their roles.

The students were placed in jeopardy of not being able to graduate on time if they could not meet the first submission deadline by submitting a draft that the Graduate School would approve, and Brianna called upon colleagues and other faculty members for

assistance. After difficult conversations among administrators at the school, college, and university levels who had not been involved in the editor's initial rejection of the document, it became clear that despite the Graduate School's written policies, the students would have to separate their co-authored document into two single-authored documents that were judged by these administrators to be sufficiently distinct before the documents would be accepted. The faculty advisor was allowed to exercise academic freedom until her choices fundamentally challenged the norm of technical rationality that required only one name to be listed as dissertation author even if the work had been jointly produced.

Ana and Miriam recalled being particularly disturbed by an email stating that they would be required to "disentangle" their co-authored document since careful synthesis was an essentially embedded and intentionally valued aspect of their collaboration. Ana, Miriam, and Brianna refuted the notion that the co-construction of the dissertation and knowledge itself could survive what would amount to an excision. This process would require the students to compartmentalize knowledge with regard to the dissertation content, process, and product—reflecting an epistemological position that they did not share—by engaging in the impossible, unethical, and emotionally fraught task of arbitrarily assigning sole authorship to thoughts and words at which Ana and Miriam had arrived together. Brianna and the students thought that such a task would mischaracterize and diminish the nature of the collaborative research content and process that had produced the dissertation and that was integral to the students' work as practitioner scholars.

After university colleagues at all administrative levels had further conversations, the students were ultimately allowed to include several co-authored chapters in each document, a practice already routinely allowed in the natural sciences that used manuscript style vertical collaboration formats that did not fundamentally challenge technical rationality. The students were required to divide the original document into two and add independently written chapters to each separate document in order to pass first submission, for which they were granted an extended deadline. Brianna quickly realized her own powerlessness as the chair as well as the powerlessness of the committee in this process; administrators and colleagues pressured her to do whatever necessary to get the students through first submission, which included developing outlines to guide the division of the students' document, which she philosophically opposed. Even colleagues who supported horizontal collaboration and practitioner scholarship, but who had been socialized into a technical rational system, reinforced the power and predominance of technical rationality by encouraging compliance rather than resistance. Both advisor and committee had been effectively stripped of the autonomy and academic freedom ensured in official Graduate School documents, and a high quality product of practitioner scholarship was mangled in order to look more like two traditional five-chapter dissertations, which were less cohesive, relevant, and rhetorically sound than the original document.

LESSONS LEARNED FROM THE CRITICAL INCIDENT

In examining the critical incident, we have identified two connected lessons upon which we elaborate. The first lesson relates to the concept and practice of horizontal collaboration. While CPED articulates the value of collaboration in its principles and some programs have explicitly embedded it in their dissertation policies, few descriptions exist regarding the nature, experience, and value of horizontal collaboration to the students as practitioner scholars. Consistent with the epistemologically constructionist underpinnings and ideals of practitioner scholarship, collaboration can transform not only the format of the dissertation product but also the content and process—as well as the context, application of the research, and the researchers themselves. The second lesson emerges from the conflicting understandings and epistemological assumptions about co-authorship held by stakeholders involved in the critical incident. Ana, Miriam, and Brianna articulate their understanding and experience of co-authorship as a horizontally collaborative, constructive process. This process extends beyond the instrumental goal of vertical collaboration in producing a finite document that meets narrow conceptions of rigor and instead offers potential for enacting change.

Horizontal Collaboration in Practitioner Scholarship: Ana and Miriam's Experience

Drawing upon Bhavsar and Ahn (2013) and Siry, Ali-Khan, and Zuss (2011), Ana and Miriam experience and define collaboration as a dialogical, reflective, interactive process and relationship in which peers value, learn from, ethically negotiate, and apply different perspectives, ideas, and strengths. Ana and Miriam's collaboration extended beyond, and organically encompassed, co-authorship. For example, in addition to co-authoring the dissertation document, the students shared methodological approaches, conferred about data analyses, maintained a collaborative reflective journal, and co-presented preliminary findings.

The students' experience of collaboration as a dialogic relationship is consistent with social constructivism, which emphasizes the power of social context and relationships in the development of thought, language, and meaning (Vygotsky, 1978 as cited in Bhavsar & Ahn, 2013; Vygotsky, 1986). This emphasis on the power of context and relationships further relates to Freire's (2007) call for humility in recognizing that "I cannot make myself alone, nor can I do things alone. I make myself with others, and with others, I can do things" (p. 73). Furthermore, Freire asserts that pride and self-sufficiency counter efforts to address social injustice. Ana and Miriam relate their experience to Freire's call for communication between active subjects who are open to discovery while resisting "bureaucratization of their minds" (Freire, 2007, p. 99); the students' collaborative processes actively nurtured creativity, discovery, purpose, and meaning and resisted assumptions of knowledge, knower, and known as compartmentalized, technically separate entities. Working in collaboration deepened Ana and Miriam's beliefs about the nature of knowledge, social problems, and the role of relationships in learning and enacting change, and countered technical rational understandings of problems as composed of discrete parts rather than interdependent systems. Collaborating to describe and address intersecting problems of practice specifically opened doors to new and significant learning and points of view, provided access to broader repertoires of knowledge and skills, and enhanced the students' abilities to advance change through their professional positions.

Throughout their collaboration, Ana and Miriam took risks in their explorations with and through the support of each other and clarified their beliefs and understandings as they developed philia, a kind of friendship based on trust and respect that emerges through opportunities for ethical reflection (Siry et al., 2011). While

collaboration can take many forms, the students characterize their experience as marked by mutual respect, adventurousness, curiosity, and cycles of critical questioning and listening (Freire, 2007), which they especially developed through co-authorship, a specific form of horizontal collaboration that entails a dialectical process of thinking and recording creatively co-constructed ideas.

Co-Authorship: A Challenge to Technical Rationality

The students' co-authored eight-chapter dissertation represented a break in content, process, and format from the traditional, individually written five-chapter dissertation, and challenged prevailing manifestations of technical rationality. The nature of their co-authorship similarly reflected a break from technical rationality and associated individualistic notions about the nature of knowledge, rigor, scholarship, and intellectual ownership. We first discuss practical details of the students' collaborative writing process, then discuss how they benefitted from the process, and, finally, describe how their enactment of collaborative writing challenged technical rationality.

How the students co-authored. Practically speaking, although they had different writing styles, they were flexible about structure, open to discussing nuances in meaning, and interested in sharing literature that they found insightful. Technology facilitated co-authorship, allowing them to write simultaneously or asynchronously, and affording flexibility regarding time, approaches to writing, and processing of divergent ideas. Using the Google Docs platform in which they could write and converse on the same document at the same time allowed them to simultaneously verbalize and refine emerging ideas. The "comment" and "suggesting" features also enabled them to work independently at different times while allowing the co-author to reflect on, accept, expand, question, or reject the other author's writing. These practical aspects of writing together facilitated and reflected a process of collaborative co-authorship which evolved as a dialogic process, relationship, skill set, and art that they continually explored and refined together.

How the students benefited from co-authorship. As Siry et al. (2011) proposed, co-authorship resulted in the construction of ideas, perspectives, and research that developed on both individual and collective levels. The students experienced the collaborative effort of "writing in and around each other's' thoughts" (Siry et al., 2011, para. 20) as a delicate but valuable dance that pushed them from individualism towards a collective, constructive, ethical, and critical relationship in both research and practice (Altman, 2016; Pizano, 2016). Their co-authorship importantly served as a "metacognitive strategy to generate deeper thought and clearer ideas" (Bhavsar & Ahn, 2013, p. 14) as they questioned each other's understandings and assumptions, and continuously clarified and made uncertainties and disagreements explicit. The process required each of them to remain critical while resolving differences and building consensus.

Co-authorship developed their willingness and ability to sustain respectful, critical, and open conversations, not only about shared views but also about divergent ideas; it also advanced commitments and skills that are not necessarily well developed through sole authorship but are important assets to practitioner scholars engaged with complex problems of practice. For example, the ongoing and intentional practice of collaborative writing helped Miriam become a more thoughtful and sensitive writer in her grant-related work as she experienced co-authorship as a form of dialogue in which thoughts interacted as they took form. She grew to understand "the final product was never the result of the knowledge or skills of one, but instead reflected a set of interconnected, ongoing interactions and values" (Altman,, 2016, p.152). This understanding of knowledge as produced through ongoing co-constructed interactions fundamentally challenges technical rationality's epistemological assumptions that knowledge is possessed and produced by individuals.

How we characterize co-authorship. As Miriam reflected:

> Writing with more than oneself in mind is a balancing act and an attempt to capture, communicate, or inspire emerging ideas, problems, or messages in a way that is both aesthetically appealing and resonates as true to more than one. Collaborative writing is also an act of trust…characterized by caring interactions and an ongoing, responsive balance of shared moments of engaged exploration along with allowing time for independent pursuit of one another's curiosities and priorities. (Altman, 2016, p. 152)

Miriam emphasized that technically oriented, expert-derived, pre-determined criteria in writing represent a minimum standard, while the beautiful, meaningful, creative, and functional sides of writing occur in spaces where different voices and points of view come together. Within these spaces, the students experienced "collaborative writing as both empowering and a form of empowerment in which the limits and sources of words are less relevant than the meaning and function of the messages they convey" (Altman, 2016, p. 152).

The reciprocal, transformational nature of the students' co-authorship applies to Bhavsar and Ahn's (2013) differentiation between instrumental and developmental collaboration, which parallels our definitions of vertical and horizontal collaboration. On the one hand, administrators holding technical rational assumptions arguably reduced the students' collaboration to the instrumental goal of producing a dissertation product that would allow the students to graduate. On the other hand, the students acted as practitioner scholars and epistemologically challenged technical rationality because, while they viewed the product as necessary to graduate, they prioritized and enacted collaboration as a collective, "socially constructed learning relationship" (Bhavsar & Ahn, 2013, p. 13). The administrators who initially required the co-authored dissertation to be "disentangled" seemed to fail to recognize or to undervalue this interdependent relationship and instead to assume that the nature of the co-authorship was simply instrumental by suggesting that the writing consisted of discrete, separable parts. We experienced these assumptions and reactions to the students' co-authorship as reflective of what Freire (2007) calls "authoritarian antidialogue" (p. 99) because it did not grant legitimacy to the students' learning process and its context in practitioner scholarship.

Challenging the Marginalization Imposed By Technical Rationality

The nature of the students' collaboration and co-authorship contrasted with technical rationality and illuminated unexplored epistemological assumptions affecting and reflecting uneven power dynamics associated with modes of scholarship, research, and collaboration. While we did not intend to engage in an epistemological battle, the vulnerable positioning of our distinct approach to the research content, process, and product in the critical

incident point to the need to analyze how prevailing epistemologies may discourage alternative modes of scholarship, particularly that correspond with the goals of practitioner scholarship and the EdD degree. The students' efforts to engage with and portray the interconnected complexity of their contexts as practitioner scholars, collaborators, and co-authors were undermined by university administrators in favor of traditional notions of rigorous scholarship as an individual act. This experience suggests a need to encourage and grant legitimacy to, rather than suppress, the values, ways of knowing and learning, and voices of practitioner scholars.

Despite the obstacles we encountered, our experiences throughout this critical incident showcase the power of collaboration and co-authorship in overcoming socialized expectations about scholarship imposed by dominant forces. For example, if the students had individually responded to the rejection of their first submission, they may have complied with unjust demands regarding their work. However, they conferred and substantiated one another's convictions that their scholarship was legitimate and that our expectations to maintain co-authored content, and to assign co-authorship to that content, were reasonable and just. The students explicitly agreed not to be divided as they supported each other throughout the critical incident, including writing additional independent chapters and preparing the collaborative dissertation defense.

The students' partnership through collaborative design, reflection, analysis, and co-authorship: transformed their understandings and abilities to apply informed understandings to problems manifested in their professional contexts; resulted in continued collaboration to tell the stories of their participants and their experience of collaboration, co-authorship, and this critical incident; and led to further collaboration and co-authorship in enacting change in policy and practice. This critical incident raises issues related to the value of collaboration and co-authorship to address problems of practice, and to the potential conflicts that arise when challenging technical rationality at a university, even when its programs, faculty, and policies have formally expressed alternative stances. The relevance of this incident transcends the experiences of two practitioner scholars and their dissertation advisor and exemplifies the need for consistency among policies and practices that protect academic freedom and allow for innovative approaches, including horizontal collaboration and co-authorship.

As a team, we agreed that this incident was not only about completing individual degree requirements, but also about broader issues related to how power, epistemologies, and modes of scholarship are understood and play out in institutions, specifically in EdD programs. Ana and Miriam's collaboration initially empowered them in thought and action to counter the demand to disentangle a synthesized work and to negotiate a more ethical and respectful resolution that would allow them to graduate without compromising personal and scholarly integrity. More broadly, our shared experience resulted in a commitment to each other and to other practitioner scholars that has surpassed the critical incident and compels us to continue to tell our story in order to hold and gain terrain in this battle of snails. Striving for excellence in scholarship requires that educators openly question how our daily practices in and across educational organizations support or contradict our espoused beliefs and goals. It also requires that we continuously search for ways to consistently and systematically revisit and align policies and practices in order to better serve learners, teachers, scholarship, and the contexts and communities we hope to impact.

RECOMMENDATIONS FOR PRACTICE IN HIGHER EDUCATION

Aligning doctoral programs, policies, practices, and principles will require ongoing review of how academic institutions support rather than stifle dialogue, collaboration, and practitioner scholarship. We recommend continuous revisions to coursework, syllabi, policies, procedures, and programmatic guidelines to reflect consistency between what is officially condoned and what is commonly practiced. Our recommendations involve preparing practitioner scholars to intentionally choose and coherently connect their pedagogical approach, research content, process, and product in a manner most relevant to their problems of practice and research questions.

Course syllabi, program documents, and university policies and procedures regarding dissertation products should clearly describe how they reflect scholarly, analytical, and ethical considerations of relevant problems of practice. For example, program coursework, including dissertations, should align with stated program goals and with the desired knowledge, attitudes, and skills that practitioner scholars need to develop in order to successfully and ethically enact sustainable social change, including the ability to collaborate and co-construct knowledge with others. Clear understanding and analysis of epistemological and methodological differences could support the alignment between theoretical paradigms, pedagogical approaches, research methods, and all phases of the dissertation.

Doctoral programs and dissertation processes should provide opportunities for students to develop a deep understanding of different epistemologies, theoretical paradigms, and research methods and to practice how they can be applied to students' own educational settings and communities. Epistemological understanding would allow students to identify and develop appropriate inquiry stances and procedures to address relevant problems of practice. Recognition and encouragement of the importance of horizontal collaboration for practitioner scholarship may include practice with different collaborative methods like co-authorship throughout the program. Additional coursework on research methods that challenge or complement technical rationality should be offered to highlight how epistemological foundations affect pedagogy as well as research content, process, and product.

Further recommendations relate to policies and procedures that govern the dissertation process. It is important that these policies guarantee academic freedom and clearly define the role of advisor and committee in supporting practitioner scholarship through the dissertation in ways that are appropriate for practitioner scholars. Dissertation policies and procedures should assert that advisor and committee are responsible for determining rigor in research content, process, and product and advise candidates accordingly by clearly laying out the power and responsibility of advisor and committee. Policies and procedures should also explicitly limit administrative involvement to technical formatting and/or cases in which unethical conduct or mismanagement jeopardizes the candidate's research, practice, academic freedom, or possibility of degree culmination.

We recommend policy language that clearly addresses the need for dissertations to represent adequate fit between content, process, and product aligned with epistemological stances and research paradigms. We also recommend establishing approval systems that explicitly support all research designs that demonstrate epistemological alignment, including those that incorporate collaborative approaches and co-authored products. Effective policies might explicitly address co-authorship and the expectation

that co-authorship be clearly indicated in the dissertation document when co-authorship has occurred. Technical criteria for the dissertation format should be considered minimums and not compliance standards.

Lastly, we recommend ongoing organizational and academic support for practitioner-scholars and faculty who challenge technical rationality, particularly through horizontal collaboration. This could take the form of policy language and guidelines that acknowledge the distinct benefits of horizontal collaboration, continued exchange among academic institutions regarding effective practices, as well as the creation of support/guidance mechanisms for scholars who encounter epistemological resistance in their doctoral program.

Continuing to win ground in the battle of snails for epistemological plurality in doctoral education will require creative advising, program inquiry and evaluation, and strategic policy-making by faculty, educational institutions, and the organizations that support them. We advocate policy language that supports practitioner scholarship's challenge to the supremacy of technical rationality by broadening definitions of what counts as rigorous scholarship to include pedagogical approaches, research processes, and products that reflect epistemological diversity. Only by explicitly recognizing the distinct demands, affordances, and rigor of context-based research can higher education institutions empower practitioner scholars to bridge the research-practice divide and create solutions to educational problems of practice that improve outcomes for all students.

REFERENCES

Adams, A., Bondy, E., Ross, D., Dana, N., & Kennedy-Lewis, B. L. (2014). Implementing an online professional practice doctoral program in a PhD environment: Managing the dilemmas. *Journal of School Public Relations, 35*(3), 363-382.

Altman, M. R. (2016). *Quality in early care and education: Multiple perspectives and critical considerations in a diverse context* (Doctoral dissertation). Retrieved from ProQuest. (10298907)

Anderson, D. G. (1983). Differentiation of the EdD and PhD in education. *Journal of Teacher Education, 34*(3), 55-58.

Anderson, G. (2017). How education researchers have colluded in the rise of neoliberalism: What should the role of academics be in these Trumpian times? *International Journal of Qualitative Studies in Education, 30*(10), 1006-1012. doi: 10.1080/09518398.2017.1312600

Anderson, G. L., & Herr, K. (1999). The new paradigm wars. Is there room for rigorous practitioner knowledge in schools and universities? *Educational Researcher, 28*(5), 12-21.

Anderson, G. L., Herr, K., & Nihlen, A. (1994). *Studying your own school: An educator's guide to qualitative practitioner research.* Thousand Oaks, CA: Sage.

Archbald, D. (2008). Research versus problem solving for the education leadership doctoral thesis: Implications for form and function. *Educational Administration Quarterly, 44*(5), 704-739.

Austin, A. E. (2002). Preparing the next generation of faculty. *The Journal of Higher Education, 73*(1), 94-122.

Belzer, A., & Ryan, S. (2013). Defining the problem of practice dissertation: Where's the practice, what's the problem? *Planning and Change, 4*(3/4), 195-207.

Bhavsar, V., & Ahn, R. (2013). Lessons learned from the collaborative writing process. *The Journal of Faculty Development, 27*(3), 12-16.

Buss, R. R., Zambo, R., Zambo, D., Perry, J. A., & Williams, T. R. (2017). Faculty members' responses to implementing re-envisioned EdD programs. *Studies in Higher Education, 42*(9), 1624-1640.

Campbell, R., & Wasco, S. M. (2000). Feminist approaches to social science: Epistemological and methodological tenets. *American Journal of Community Psychology, 28*(6), 773-791.

Carnegie Project on the Education Doctorate, Inc. (2016a). History of the initiative. Retrieved from http://cpedinitiative.org/about/history

Carnegie Project on the Education Doctorate, Inc. (2016b). About Us. Retrieved from http://cpedinitiative.org/aboutus

Carr, W., & Kemmis, S. (1986). *Becoming critical*. London: Falmer Press.

Cochran-Smith, M. & Lytle, S. L. (2005). Practitioner inquiry, knowledge, and university culture. In J. Loughran, M. L. Hamilton, V. LaBoskey, & T. Russell (Eds.), *International handbook of research of self-study of teaching and teacher education practices* (pp. 601-649). Amsterdam, Netherlands: Kluwer Publishers.

Cope, J. & Watts, G. (2000). Learning by doing. An exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behaviour and Research, 6*(3), 104–124.

Dana, N. F., Bondy, E., Kennedy-Lewis, B. L., Adams, A., & Ma, V. W. (2016, June). Exemplifying the dissertation in practice. *Carnegie Project on the Education Doctorate White Paper Project, 1*(1). Retrieved from http://www.cpedinitiative.org/?page=PubWhitePapers

Dawson, K., & Kumar, S. (2014). An analysis of professional practice EdD dissertations in educational technology. *Tech Trends, 58*(4), 62-72.

Dill, D. D., & Morrison, J. L. (1985). EdD and PhD research training in the field of higher education: A survey and a proposal. *Review of Higher Education, 8*(2), 169–186.

Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin, 51*(4): 327–358.

Freire, P. (2007). *Pedagogy of the heart.* New York: Continuum.

Hochbein, C., & Perry, J. A. (2013). The role of research in the professional doctorate. *Planning and Change, 44*(3/4), 181-195.

Murphy, J., & Vriesenga, M. (2005). Developing professionally anchored dissertations: Lessons from innovative programs. *School Leadership Review, 1*(1), 33–57.

Pizano, A. C. (2016). *Professional development for early care and education in a diverse context: Multiple perspectives and critical considerations* (Doctoral dissertation). Retrieved from Proquest. (10299044)

Ravitch, S. M., & Lytle, S. (2016). Becoming practitioner-scholars: The role of practice-based inquiry dissertations in the development of educational leaders. In V. A. Storey, & K. A. Hesbol (Eds.), *Contemporary approaches to dissertation development and research methods* (pp. 146-161). Hershey, PA: IGI Global.

Reichard, R. (2015, August 29). Why we say Latinx: Trans & gender non-conforming people explain [Web log post]. Retrieved from http://www.latina.com/lifestyle/our-issues/why-we-say-latinx-trans-gender-non-conforming-people-explain

Schön, D. A. (1995). The new scholarship requires a new epistemology. *Change, 27*(6), 27-34.

Shulman, L. S., Golde, C. M., Conklin Bueschel, A., & Garabedian, K. J. (2006). Reclaiming education's doctorates: A critique and a proposal. *Educational Researcher, 35*(3), 25-32.

Siry, C., Ali-Khan, C., & Zuss, M. (2011). Cultures in the making: An examination of the ethical and methodological implications of collaborative research. *Forum: Qualitative Social Research, 12*(2). Retrieved from http://www.qualitativeresearch.net/index.php/fqs/rt/printerFriendly/1657/3199

University of Southern California. (2016). Curriculum. Retrieved from http://rossier.usc.edu/programs/doctoral/ed-leadership/curriculum/

Vygotsky, L. S. (1986). *Thought and language* (Revised edition). Cambridge, MA: Massachusetts Institute of Technology.

Weidman, J. C., Twale, D. J., & Leahy, E. (2001). *Socialization of graduate and professional students in higher education: A perilous passage?* San Francisco: Jossey-Bass.

Zeichner, K., & Noffke, S. (1998). Practitioner research. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed.) (pp. 404-442). Washington, DC: American Educational Research Association.