

**Tensions Between Discipline-Specific and Field-Wide Learning Communities:
Lessons from an Evolving EdD Program at the University of Pittsburgh**

by

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This program evaluation of the University of Pittsburgh EdD program was conducted to determine potential changes and modifications to create a more successful EdD program. The study had three purposes. The first was to determine how the Foundations and Practitioner Inquiry courses were structured to accommodate areas of concentration (ARCOs) and how that had changed over time. The second was to determine how students thought the diversity of ARCOs contributed to the achievement of their ARCO and program goals. The third was to investigate what other aspects within the EdD program had contributed to student learning goals in order to determine how Foundations and Practitioner Inquiry courses could more clearly meet ARCO and program goals. The data suggested students did not perceive the program in the same way the School of Education outlined it in that the Foundations and Practitioner Inquiry courses were more connected to General Education versus ARCO. Several suggestions were made to help connect the intent of the coursework with the program goals.

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1.0 Introduction

The education doctorate (EdD) is almost a century old, formed at Harvard University in 1920. It began as a research degree because professional students were looking for promotions into administrative positions, making a Doctor of Education (EdD) a professional doctorate degree for experienced administrators and educators who wanted to lead and implement change within their organizations. According to Wergin (2011), “The EdD has become the degree of choice for school administrators looking for a fast-track doctorate to use as a career credential” (p. 120). The EdD program appeals to professionals working in higher educational institutions, nonprofit organizations, and healthcare. In most EdD programs, the teachings are commonly labeled as applied research, practitioner research, or problem-based learning. However, because of the overlap in research focus between the EdD and PhD degrees, there has been confusion about the different purposes of the EdD compared to the PhD. In 2007, in an attempt to address this confusion about the EdD and to clarify its purpose, the Carnegie Project of the Education Doctorate (CPED) was formed to “redesign doctoral preparation for professional practitioners” (<https://www.cpedinitiative.org/the-framework>). It began as a consortium of 25 schools of education. Three years later, 27 additional schools joined CPED in order to redesign the degree to make it one of the highest-quality degrees for practitioners in education. Currently, CPED has 105 member universities and is headquartered at the University of Pittsburgh School of Education (<https://cped.memberclicks.net/history>).

Despite the changes CPED had made to improve EdD programs, they still faced several challenges. By way of analogy, Benjamin (2001) from Texas A&M University pointed out that the myriad subspecialties in psychology, such as neuroscience, cognitive science, education, and

healthcare, have led the field of psychology down “a path of fragmentation or disintegration” (p. 735). Because of this fragmentation, he stated that it had been difficult to establish a core curriculum within the field of psychology. While Benjamin noted this fragmentation began in the early 1920s to address a post-war need for educational opportunities in applied psychology, one might argue that there is a similar fragmentation within the EdD program at the University of Pittsburgh. In both cases, because of the many students with different educational and career trajectories, establishing a core curriculum that provides a foundation of common knowledge while being relevant to all areas of specializations is a challenge. To attend to the needs of the collective EdD program, CPED identified six principles that serve as a foundation in the new design for EdD programs. According to CPED, the EdD:

1. Is framed around questions of equity, ethics, and social justice to bring about solutions to complex problems of practice
2. Prepares leaders who can construct and apply knowledge to make a positive difference in the lives of individuals, families, organizations, and communities
3. Provides opportunities for candidates to develop and demonstrate collaboration and communication skills to work with diverse communities and to build partnerships
4. Provides field-based opportunities to analyze problems of practice and use multiple frames to develop meaningful solutions
5. Is grounded in and develops a professional knowledge base that integrates both practical and research knowledge, that links theory with systemic and systematic inquiry
6. Emphasizes the generation, transformation, and use of professional knowledge and practice (<https://www.cpedinitiative.org/the-framework>)

In order to achieve these goals, EdD programs foster collaborative opportunities among students by using a cohort model. In a cohort model, a group of students enter the program at the same time and go through the program together. Within the cohort, different programs organize “areas of concentration” in different ways. For example, the Duquesne University School of

Education Doctor of Education (EdD) program is built on a cohort learning model, accepting 12-15 students a year (<https://www.duq.edu/academics/schools/education/doctoral-programs/edd-educational-leadership>). The Duquesne EdD program operates with two specializations, Education Leadership and Educational Technology, bringing together a wide range of professionals—from superintendents to executives to nonprofit administrators. In contrast, the University of Pittsburgh now offers eight areas of concentration (ARCOs) in the EdD program, where students collectively participate in four Foundations courses and four Practitioner Inquiry (PI) courses and then take four area of concentration (ARCO) courses in which they break off into their smaller, more focused ARCO groups. There are approximately 53-70 students in the larger cohorts, while the ARCOs are much smaller, ranging from approximately 2-16 people. Additionally, students are required to complete both an internship and dissertation project.

The four Foundations courses that all students take at the University of Pittsburgh are: a) Foundations 1: Framing, Identifying, and Investigating Problems of Practice; b) Foundations 2: Leadership in Groups and Organizations; c) Foundations 3: Education Contexts; and d) Foundations 4: Policy as a Lever for Change. The Foundations courses are designed to help students gain interdisciplinary perspectives from a wide range of faculty expertise areas and to assimilate knowledge that other EdD students have to offer within other disciplines. The setup of these four Foundations courses offers students the opportunity to explore new perspectives that might contribute to the way they think about solving problems in their place of practice and in their research.

All cohort students also take four Practitioner Inquiry courses at the University of Pittsburgh: a) Practitioner Inquiry 1: Inquiry as Practice—Becoming a Scholarly Practitioner, b) Practitioner Inquiry 2: Examining Context Through Inquiry, c) Practitioner Inquiry 3: Examining

Change Through Inquiry, and d) Practitioner Inquiry 4: Applying Disciplined Inquiry. The Practitioner Inquiry courses introduce students to methods of research as well as gathering and analyzing data and evidence. These courses introduce all students to tools and approaches to studying a problem of practice and inquiry. The Practitioner Inquiry courses lead into further development of inquiry, study design, and how to communicate evidence collected. See the Cohort 2017 program structure in Table 1 below:

Table 1. At-A-Glance Reference 2017

<u>First Year, First Term, Summer I</u>	<u>First Year, Second Term</u>	<u>First Year, Third Term</u>	<u>First Year, Fourth Term, Summer II</u>
<p><i>EDUC 3002 Foundations 1:</i> Framing, Identifying, and Investigating Problems of Practice (ON-RAMP)</p> <p><i>EDUC 3001 Practitioner Inquiry 1:</i> Inquiry as Practice – Becoming a Scholarly Practitioner</p>	<p><i>EDUC 3003 Foundations 2:</i> Leadership in Groups and Organizations</p>	<p><i>EDUC 3004 Foundations 3:</i> Education Contexts</p>	<p><i>EDUC 3005 Foundations 4:</i> Policy as a Lever for Change</p> <p><i>EDUC 3006 Practitioner Inquiry 2:</i> Examining Context Through Inquiry</p>
<u>Second Year, First Term</u>	<u>Second Year, Second Term</u>	<u>Second Year, Third Term</u>	
<p><i>EDUC 3009 Supervised Practitioner Inquiry</i></p>	<p><i>EDUC 3007 Practitioner Inquiry 3:</i> Examining Change Through Inquiry</p>	<p><i>EDUC 3008 Practitioner Inquiry 4:</i> Applying Disciplined Inquiry</p>	

The curricula of most EdD programs include courses on inquiry and research. Other programs, however, are notably different from the University of Pittsburgh’s as many organizations have fewer students and organize their coursework differently. For example, Miller and Curry (2014) examined the development of Morehead State University’s (MSU) first doctoral program, an online practitioner based EdD program in educational technology leadership. Because there were few regional opportunities for students to obtain a terminal degree in the area of education, MSU strived to develop a highly structured EdD program to serve as its “north star” (p.

36). The program came to life from an EdD retreat consisting of faculty from the Department of Foundational and Graduate Studies in Education (2014). Notably, MSU, which is not a Research-1 (R1) university, is undertaking a program that is similar to those established at larger R1 universities. Research-1 Universities perform high levels of research activity. According to The Carnegie Classification of Institutions of Higher Education (2018), these institutions have reported a minimum of 5 million dollars of total research expenditures through the National Science Foundation (NSF) (https://carnegieclassifications.iu.edu/classification_descriptions/basic.php). Morehead State University has accepted approximately 12 students per year, as opposed to the approximately 53 plus students accepted at the University of Pittsburgh School of Education. Morehead's curriculum, at the time of the study, was structured using four segments: 1) core courses, 2) applied and capstone courses, 3) track core courses, and 4) alternate areas of emphasis courses. Morehead's core courses are a blend of the Foundations and Practitioner Inquiry courses offered at the University of Pittsburgh, albeit without labeling them as two distinct types of courses.

As seen in the description of MSU's core courses, there is an overlap of the collective goals between both universities. Morehead State University describes their core course goals as a combination of theory and research: (a) concepts and tools applicable to servant leadership, (b) examination of the "what is" and "what may be" as it applies to problems of practice through gathering objective and empirical data through various methodologies, (c) legal and ethical issues that may influence higher education administration, students, and staff, (d) identifying and applying effective research designs, (e) formulating a literature review, using action research, designing a pilot project, and (f) how organizational leadership serves as a framework for problem solving (<http://moreheadstate.smartcatalogiq.com/2015-2016/Graduate-Catalog/Courses/EDD->

[Educational-Doctorate/800/EDD-801](#)). Although these courses share similar goals as Pitt's courses, the alignment is the contrast. The University of Pittsburgh describes their core courses in two different clusters or segments as noted above. Since the Foundations and Practitioner Inquiry courses serve different purposes, the School of Education might be setting up an unintentional divide between theory and research, whereas MSU suggests the core courses serve a unified goal. If MSU is teaching the same skillsets, the way it is delivered may have an impact on doctoral students' understanding of how the courses work together. The cohesive structure of MSU's curriculum may influence how instructors approach teaching core courses.

On the other hand, the EdD in Educational Leadership and Policy at Florida State University (FSU) is the university's first online doctoral program. During the first year, Foundations courses are offered in such categories as Applied Research Methods, Foundations of Education, Literature Review for Educational Research, and Laboratory of Practice 1 (https://education.fsu.edu/wp-content/uploads/2015/05/ELP_Online-EdDHandbook_2019-20.pdf). This is a useful way of defining Foundations courses since it serves as a springboard for the larger project. During the second year, the curriculum is structured around research tools and policy content. Like the University of Pittsburgh's EdD program, Florida State includes courses such as Professional Learning for Educational Practitioners 2 and Policy to Practice as part of the curriculum. Lastly, both universities structure their third-year curriculum with courses that relate to research in practice—dissertation credits. Florida State University has a similar setup as MSU in the sense that what is labeled as Florida State University's first-year Foundations courses address a blend of theory and research. However, both universities appear to have integrated what Pitt offers as a separate categorization of Foundations and Practitioner Inquiry courses. Within the first year at FSU, there is a combination of what Pitt labels Foundations, Practitioner Inquiry, and

the literature review courses. However, there appears to be more of a balance of theory and research in practice courses that students take simultaneously.

2.0 Review of Literature

This literature review focuses on various categories that are essential to the University of Pittsburgh School of Education EdD program. The first category is centered around program evaluation—the vision for reforming an EdD program. The second category refers to the development of scholar-practitioners within their fields of expertise, and the third category refers to effective curricular elements. Lastly, and most importantly, the Community of Inquiry framework served as a guide in assessing relationships among three fundamental elements of “presence”—teaching, social, and cognitive—in instructional design and course organization, group cohesion, and in helping students connect and apply new concepts.

2.1 Program Evaluation and Reform

In order to create a more cohesive EdD program, it is important to continually evaluate not only the curriculum, but the student perceptions of how the curriculum is meeting their learning goals. The purpose of this paper is to assess the relationships among the curriculum, areas of concentration, and goals of the Doctor of Education (EdD) program at the University of Pittsburgh School of Education in order to determine how well integrated the areas of concentration are in the curriculum. The students, then, could efficiently achieve the program goals. The University of Southern California (USC) Rossier School of Education offers a useful example. Marsh and Dembo (2009) had indicated USC strived to assure their new Doctor of Education (EdD) program was effective through continuous review and monitoring. The school wanted to make it a priority

to use data-driven decision-making and problem solving as well as active use of indicators and various data to maintain and make improvements within the program (p. 70). The one important method they found to be lacking was tracking the equivalent of Key Performance Indicators (KPIs), which can help advance teaching methods and student achievement. Key Performance Indicators are quantifiable measures for evaluative purposes. These indicators include: number of students in each cohort, time it takes students to complete the degree, yearly retention rate, graduation rate, number of students in various areas of concentration within the EdD program, student-to-faculty ratio, percentage of classes using digital technology, and tracking which jobs students are working in.

One approach to reforming educational programs might be through identifying technologies that enrich the student learning experience. One innovative strategy within the USC Rossier School of Education is the *No Back Row* philosophy. The USC Rossier School of Education eventually became a partner of a company, 2U, which was founded in 2008 when a group of experienced information technology (IT) experts and instructors worked to build online programs equivalent to or better than the traditional classroom setting and student experience (<https://cdn3.2u.com/partners/>). 2U's goal is to guide universities in not just using technology for instruction but applying it to their own advantage to further their vision and mission as well as objectives and goals. *No Back Row* is structured so that students do not have the opportunity to sit in the "back" of the room or avoid participation as in a traditional classroom. Part of USC's mission is:

Research of the highest quality by our faculty and students is fundamental to our mission. USC is one of a very small number of premier academic institutions in which research and teaching are inextricably intertwined, and on which the nation depends for a steady stream

of new knowledge, art, and technology. Our faculty are not simply teachers of the works of others, but active contributors to what is taught, thought, and practiced throughout the world. (USC, 1993)

The University of Southern California kept its mission in mind when searching for greater ways to connect with students (<https://about.usc.edu/policies/mission-statement/>). All students would appear to have the same level of connection to the instructor and the opportunity to become leaders in their own learning. If students are leaders in their own learning, it may help them grow as leaders within their own places of practice.

2.2 Development of Scholar-Practitioners in Their Fields

Students are required to develop a Problem of Practice (PoP) within their place of practice; therefore, most students who are enrolled in the EdD program work full-time. The goals of EdD programs are to develop scholar-practitioner leaders. According to Boyce (2012), scholar-practitioners will transform into leaders in the field of practice by: 1) applying necessary educational practices, 2) harvesting new, practical knowledge to facilitate practitioner-based decision-making, and 3) establishing leadership and management within their field of expertise or place of practice (p. 25).

Klenowski and Lunt (2008) noted the end goal was for students to develop their practice by weaving research with relevant literature, allowing them to make contributions and solve problems within their places of practice (pp. 203-204). Along with research, EdD programs also use a cohort-based model to foster collaborative opportunities for students with diverse points of view in order to increase depth of understanding in their fields.

2.3 Effective Curricular Elements

Curriculum helps students engage and develop a sound knowledge base. In order to build a solid curriculum, Dean Karen Symms Gallagher from the USC Rossier School of Education led the school in a “Futures Conference” in 2001, the same year administration began the design of the new EdD program at USC. Many of the stakeholders who took part in this conference were faculty, staff, alumni, community members, and students. With professional facilitators leading the conference, these stakeholders engaged in a three-day strategic thinking forum. Four themes were developed and labeled as “pillars”: leadership, learning, accountability, and diversity. The EdD was the first USC School of Education program to implement these pillars, specifically for the development of the core courses. All faculty incorporated these pieces as central components within their curriculum. The overall goal was to find equilibrium between practice and research in education (https://rossier.usc.edu/files/2013/04/USC_Rossier_Conceptual_Framework.pdf.)

Most programs use cohort models for student learning and to enhance program management. Browne-Ferrigno and Maughan (2014) in referencing Barnett and Muse (1993) asserted cohorts typically have enrollment of 10 to 25 students “who begin and complete a program of studies together, engaging in a common set of courses, activities, and/or learning experiences” (p. 1). After reviewing the CPED website, Browne-Ferrigno and Maughan’s (2014) article “Cohort Development: A Guide for Faculty and Program Developers,” outlined the number of EdD programs affiliated with CPED are delivered through executive formats that integrate face-to-face meetings, online learning activities, independently completed work, and sometimes fieldwork. Cohorts theoretically enhance the student learning experience because the structure gives students an opportunity to learn and practice skills collaboratively through professional and academic discussions that might be difficult to integrate across individual courses over time. Students also

learn to comfortably build learning communities and develop skills in conflict resolution (pp. 1-2). Furthermore, Lei et al. (2011) as quoted in Bista and Cox (2014) found that a cohort-based model contributed to independent learning with the security of leaning on peers for advice (p. 5).

Browne-Ferrigno and Maughan (2014) noted that there is not a universal definition for what a cohort represents (p. 1). Cohorts generally embody students who take the same courses together within a specific semester, although students may end up taking classes with non-cohort classmates throughout various terms. The cohort model is followed by the University of Pittsburgh, School of Education; however, the cohorts here are significantly larger and bring together eight distinct areas of concentration, which underscores the importance of looking at learning strategies within the ARCO design. The University of Pittsburgh is unique because their cohorts consist of anywhere from 53-70 students who start together and go on to engage in larger and smaller group learning experiences for the duration of their program.

2.3.1 Experimenting with the Curriculum, Hybrid, and Online Learning

Technology has paved the way for student learning and accommodation in and out of the physical classroom. The University of Pittsburgh's EdD program students have used video conferencing software such as Skype or Zoom to participate in the program. It is expected that these technologies will become more popular and more widely used in education.

Barrett's article "Virtual Project Management: Examining the Roles and Functions of Online Instructors in Creating Learning Applications With Value" is relevant because it highlighted the importance of enhancing online courses with real-world and captivating learning applications. One key thought helped to frame how the author of this paper had looked at business courses: He sought to understand what the adult learner would use now and in the future. For

example, is the curricular content only good enough “for the moment” in order for students to earn a grade, or will the content be extensive enough to use in the future? Barrett designed two business courses: (Human Resource Development and Organizational Consulting) for online purposes, which previously consisted of basic written assignments. He referenced an existing syllabus to develop course objectives. In the Human Resource Development course, Barrett felt there would have been a benefit to doing one key project on training and development, rather than focusing on numerous term papers, and that the project could be applied to students’ current workplace. Students had the option to pick from a list of five training scenarios and four states of training: 1) needs assessment, 2) design and development, 3) implementation, and 4) evaluation. The instructor had live chats and regular communications about the project itself and the status of the project, including milestone completion. Students were slow to show ownership, but as the course progressed, students began to show increasing ownership (2012, p. 659).

Program planning is critical so that curricular elements align. Ryan, De Lisi, and Heuschkel (2012) looked at Rutgers University. Rutgers has offered an EdD degree since 1930 and a PhD since 2000. With the aim of increasing Rutgers’s national competitiveness, the reconstruction of the EdD program was influenced by the Carnegie Foundation for Advancement of Teaching. The Carnegie Foundation noted that unlike other fields, education had not succeeded at differentiating between doctoral preparation for practicing professionals and researchers in the field of education. Educational leaders were more prepared for professional practice than for research, a role that did not quite fit the demands of their work. Dean De Lisi addressed the need to “rationalize” both degree programs by separating their mission and core design. Economic factors also played a role in the decision to redesign the program. In the beginning stages of restructuring the program, the formation of a faculty task force was deemed necessary. The dean submitted a proposal for Rutgers

to become a participating member of CPED. The planning occurred from September 2006 through May 2009, when the revised EdD program was approved by faculty. Additionally, members of the educational community were involved in the program development efforts. A steering committee was then assembled, comprised of a variety of stakeholders (faculty representatives, current students and alumni, as well as community members) who were linked to research and practice. Engaging these stakeholders in the planning process allowed them to build ownership and commitment within the organization (pp. 75-88).

2.4 Communities of Inquiry

Thompson, Vogler and Xiu (2017) pointed out, as supported by Garrison, Anderson & Archer (2000), that a Community of Inquiry (COI) framework is supported by three elements: social presence, teaching presence, and cognitive presence. *Social presence* refers to student perceptions of fitting in and feeling supported by their classmates and peers; however, students may feel a lack of support. How do we encourage collaboration, engagement with participants, and a safe space for self-expression? *Teaching presence* refers to the design of a course, facilitation, and instruction. This is critical since it encompasses education and a sense of community for students. *Cognitive presence* refers to being able to construct meaning by applying and connecting ideas while respectfully exchanging information to facilitate individual and collective reflections (pp.1-8). This research continually pursues how students perceive the course content and how it is applicable to their problems of practice.

Song, Singleton, Hill, and Koh (2004) created a questionnaire listing 20 questions about online learner characteristics, perceived challenges, and helpful components. Seventy-six (76)

graduate students were surveyed to identify favorable workings as well as perceived challenges. Eighty-seven percent (87 percent) of participants who were satisfied with online learning shared curriculum design accounted for a successful online learning environment. In addition, 75 percent expressed comfort with technology, 62 percent voiced comfort with time management, and 62 percent also found comfort with motivation to learn (p. 65). In contrast, Kebble (2017), who referenced Song, Singleton, Hill and Koh (2004), argued that when online students complained about limited participation by lecturers, it resulted in a feeling of neglect with negative ramifications (p. 93). Kebble (2017) further referenced Hill (2002) to make the point that implementing strategies with the use of discussion board communications can enhance the success of the online learning process (p. 93).

Instructors need to find ways of effectively supporting student learning. For example, Koehler, Zellner, Roseth, et al. (2013) pointed out how Michigan State University (MSU) launched its first hybrid doctoral program in Educational Technology in 2010. They found several challenges in the creation of the program, specifically around alignment of the hybrid program compared to face-to-face. A critical element examined was how to mix the ingredients of technology, pedagogy and content (p. 48). How one brings together class materials and participation requires further research. Garrison, Anderson, and Archer (2000) highlighted social presence, teaching presence, cognitive presence, and technology's perceived affordances (p. 92). These elements make-up a "Community of Inquiry" (COI) framework, centered around student learning and collaboration. The core of an effective EdD program should provide a rich educational experience and produce meaningful knowledge.

The social presence creates a home—a place in the classroom among classmates and instructors (Rovai, 2002; Rovai & Jordan, 2004; Saville, Lawrence, & Jakobsen, 2012). Through

discussion forums and other modes of “storytelling,” students start to see the “human” component of their peers as contributing to their own education. Through this process, students see other students as actual people and not just as words in a blog. The teaching presence accounts for the design and facilitation of the educational experience. It further outlines the importance of having the elements of an EdD program in place, including a structured setup of online courses in the learning management system (LMS)—Blackboard and Courseweb.¹

Crowe, Silva and Ceresola referenced Vygotsky’s (1978) pedagogy of “assisted performance” and how instructors can have an impact on students’ critical thinking. Assisted performance is achieved through scaffolding of projects and collaboration among other students. The author referenced Bruffee (1992) in pointing out social interaction and peer discussions aid in critical thinking and students’ writing ability (pp. 201-202).

Fertman (2018) affirmed that with the proper academic guidance and feedback, students can accomplish challenging tasks such as writing (p. 52). For example, at the University of Pittsburgh School of Education, EdD students start to write their Applied Inquiry Plan (AIP)² during their second year. Within the Practitioner Inquiry courses, students start to think more critically about their inquiry questions. This is accomplished by scaffolding the assignments. Students start to identify articles that explain various methods while identifying a connection to their problem of practice and inquiry. For this to be effective, instructors and advisors have a strong teaching presence through this process. Additionally, it is an assignment that is intellectually challenging, which creates a cognitive presence through student engagement.

¹ The University of Pittsburgh is transitioning to Canvas, a learning management tool, which will replace Blackboard starting in Summer 2020.

² The AIP is a type of proposal that outlines the nature and focus of the student project.

2.5 University of Pittsburgh EdD Program

The University of Pittsburgh School of Education (SOE) EdD program had recently been restructured around a cohort-based model, which brings together eight areas of concentration known as ARCOs: 1) Education Leadership, 2) Health & Physical Activity, 3) Higher Education Management, 4) Language, Literacy & Culture, 5) Out-of-School Learning, 6) Special Education, 7) Science, Technology, Engineering & Math, and 8) Social & Comparative Analysis in Education. The newly formatted EdD program, made up of various ARCOs, began in the summer of 2014. The purpose of the ARCO system was to divide students into smaller groups to learn about course content directly related to their place of practice.

First-year students are required to complete four Foundations courses, two Practitioner Inquiry courses³, and two ARCO courses. The Foundations courses prepare students to gain an interdisciplinary perspective from the diverse expertise of faculty while assimilating new knowledge that other EdD students have to offer simply by virtue of their close interaction over the course of the program. Foundations 1: Framing, Identifying, and Investigating Problems of Practice is designed to help students establish themselves as scholarly practitioners while learning how to research literature and apply it to their own problem of practice. The Foundations 2 course is Leadership in Groups and Organizations, whose goal is to teach students how to address complex, institutional-level problems of practice and how to find student-centered solutions. Foundations 3, the Education Contexts course, allows students to explore and identify specific structural and social features within their place of practice through leadership, policy,

³ The 2016 and 2017 Cohorts participated in two Practitioner Inquiry courses during their first year of study. The 2018 Cohort participated in one Practitioner Inquiry course during their first year.

interventions, and outcomes. Lastly, the Foundations 4: Policy as a Lever for Change course offers methodological approaches to understanding policymaking and the processes by which policies are (and are not) translated into practice. This is an example of how one set of courses (Foundations) are presented separately from other courses. This separation might represent a split between Foundations, Practitioner Inquiry, and ARCO courses. One possible unintended result is that students often express difficulties in integrating the course content from the Foundations courses into their areas of expertise.

The Practitioner Inquiry courses introduce methods of research including gathering and analyzing data and evidence. Students participate in two Practitioner Inquiry (PI) courses in their first year and two additional PI courses in their second year. The first-year Practitioner Inquiry 1 course focuses on principles, tools, and methodologies of the “improvement science process.” According to LeMahieu, Grunow, Baker, Nordstrum, & Gomez (2017) “Improvement Science is a broad field that encompasses a wide range of tools and methodologies to support improvement of processes and outcomes through organizational learning” (p.10). Practitioner Inquiry 2 introduces tools and approaches to studying a problem of practice and inquiry. Practitioner Inquiry 3 and 4, offered in the second year of study, are extensions of previous coursework related to inquiry design, methods, analysis, and how to communicate evidence collected. Additionally, all students are required to take two ARCO-specific courses in their first year and two ARCO-specific courses in their second year of study. Because the structure of the University of Pittsburgh’s EdD curriculum does not identify an overarching focus, there may be a lack of clarity of the goals and connections between Foundations and Practitioner Inquiry courses.

2.6 Goals of the University of Pittsburgh EdD Program

The goals of most EdD programs are to “recognize, advance and create new meanings, not only for leading professional change and commitment to improvement of practice but also for scholarship—where opportunities to learn for those participating in the study are an integral part, rather than a by-product, of the process” (Burnard, Dragovic, Ottewell, & Lin, 2018, p. 41). The EdD program at the University of Pittsburgh has similar goals. The objectives at the School of Education are to:

1. Offer opportunities for students to gain an interdisciplinary perspective through courses that are created and taught by faculty across departments in the School of Education
2. Promote collaborative learning, shared experiences, and interdisciplinary knowledge through a cohort structure
3. Equip students with the knowledge and experience to be educational innovators who can address enduring problems of practice in their fields
4. Accommodate student needs as working professionals
5. Provide a clear pathway for completing the degree in three years (University of Pittsburgh, 2019)

In other words, students in the University of Pittsburgh EdD program should be learning to become change agents and problem solvers within their own places of practice as well as to locate their practice within the larger context covered in the core courses. The broader question is whether the students’ academic experience reflects these goals, specifically since the newly formatted program was implemented in 2014.

2.6.1 Problem of Practice

At the University of Pittsburgh, several challenges can arise from students trying to apply the content of the EdD core courses to their respective ARCOs. While ARCOs draw from a diverse pool of student expertise and students in each ARCO offer different perspectives in their fields of practice, many times students may feel they experience a disconnect between core course content and academic/professional relevancy. For example, students in the Special Education ARCO may have difficulty seeing how specific research approaches apply to their work. In Special Education, they do single research case studies, whereas this may not be one of the methods covered in the core courses. Another example would be students in the Higher Education Management and Health and Physical Activity ARCOs having some challenges connecting K-12 readings to the problems they face in their place of practice since many of these students work in post-secondary educational institutions or other organizations.

Iriti, Sherer, and Long (2016) from the University of Pittsburgh's Learning Research and Development Center (LRDC) compiled a report, the *School of Education "EdD in 3" Faculty Perspectives on Program Design and Implementation*, that expanded upon faculty perspectives on program design and implementation in the EdD program. The team reviewed artifacts, including notes from student focus groups, with former Dean Alan Lesgold, and held 26 semi-structured interviews with faculty across the various ARCOs. Pitt students raised concerns regarding a misalignment between core and ARCO courses. Additionally, there were student concerns about the disparity of approaches among the two to three instructors teaching the core courses since each instructor had a different specific area of expertise. This raises the question of how core course content can be equally distributed to all areas of concentration. Faculty interviews confirmed that there is a belief that barriers exist when it comes to balancing the curriculum since it is a school-

wide program (p. 14). My research project has allowed me to gain similar insights and perceptions of students from three cohorts.

Attention to perceptions of how well the curriculum balances Foundations and Practitioner Inquiry courses is an important facet to consider in order to address larger issues such as student satisfaction and retention. When students take a leave of absence and do not return or if they withdraw from the EdD program, administrators at Pitt must identify whether or not they lost students due to correctable flaws in the program. Helping students see connections between core coursework and ARCOs, as well as helping them collaborate more successfully with other students—within and outside of their ARCOs—would make their education more fruitful and possibly improve satisfaction and retention.

Lowery, Geesa, and McConnell (2018) highlighted national attrition rates within education doctoral programs are between 50 percent and 70 percent (Ivankova & Stick, 2007; Rockinson-Szapkiw, Spaulding, & Bade, 2014). One of the barriers they had pointed out is overcoming learning gaps that existed between the curriculum and pre-existing student knowledge. Another difficulty is in identifying relevant, problem-based inquiries for practitioners (p. 30). West, Gokalp, Pena, Fischer, and Gupton (2011) acknowledged that another challenge is providing the proper academic support to guide students who need more help because they work full-time in addition to being doctoral students (p. 320).

While it is disconcerting to think that these disconnects may have roots in structural elements within EdD programs, it is worth pursuing strategies to reduce barriers that are within programs' control to change. According to Golde (2015), structural elements included program requirements and courses, evaluations and milestones (exams, papers, and projects), internships, and other contributions such as presentations and possible publications (p. 210). Like Golde, this

study also looked at the structural elements of the University of Pittsburgh's EdD program. In this research, the practitioner sought to answer how Foundations and Practitioner Inquiry courses were structured to accommodate ARCOs and how that has changed over time, to explore student perceptions of curriculum effectiveness in relation to their ARCO and program goals, and to identify what other aspects have been most helpful for student learning ARCO and General Education material.

2.7 Conclusion

The purpose of this research was to look at effective structural elements of the EdD program at the University of Pittsburgh. Barrett's article influenced the design of the Qualtrics student survey and helped form the inquiry around student learning goals. Strategies such as continual program evaluation, review of curricular content and presentation, and the Community of Inquiry framework also framed the survey questions in this study.

3.0 Methodology

3.1 Study Context

The purpose of this study was to identify crucial relationships between discipline-specific and classroom learning communities within an evolving Doctor of Education program at the University of Pittsburgh in order to determine whether or not students were able to connect the core Foundations and Practitioner Inquiry course content with their specialized area of concentration, how ARCOs influenced their learning, how helpful other program elements have been for student learning of ARCO and General Education material, and what elements have helped students develop a Problem of Practice (PoP). The study was designed to address the following questions:

1. How are Foundations and Practitioner Inquiry courses structured to accommodate areas of concentration (ARCOs), and how has that changed over time?
2. How effective do the students think the curriculum is in helping them reach their ARCO and program goals?
3. How could the Foundations and Practitioner Inquiry courses for the program be improved to help students both see clearer relationships to their ARCOs and better meet program goals?

3.2 Mixed Methods Approach

The best way to respond to the inquiry questions regarding the EdD program was through a mixed methods approach. Creswell (2006) stated that “mixed methods research is important today because of the complexity of problems that need to be addressed, the rise of interest in qualitative research, and the practical need to gather multiple forms of data for diverse audiences” (p. 18). In the study, data was gathered on students’ perceptions of the Foundations and Practitioner Inquiry courses in the EdD program, student perspectives on the influence of areas of concentration (ARCOs), and program elements. Qualitative findings from these sources have allowed for further exploration of quantitative data. By using multiple forms of inquiry and data, this study can help other administrators and students better understand the components of program evaluation and management. A mixed methods approach was used in this study to better understand discrepancies between quantitative results and qualitative findings. The integration of quantitative and qualitative data made possible by a mixed methods approach had the potential to enrich the practical and academic value of the findings.

The methods used included a Qualtrics survey and an artifact analysis. The methods had included a survey asking students from the 2016, 2017, and 2018 cohorts about their perceptions regarding the curriculum and an artifact analysis of the four Foundations and four Practitioner Inquiry courses for the EdD cohorts. The survey was created in Qualtrics and developed based on the inquiry questions and Community of Inquiry (COI) framework. It allowed students to convey their points of view, which were grounded in their experiences. Participants received an introductory statement with the survey that outlined the purpose of the study and its confidential nature. For the artifact analysis, the syllabi for the four Foundations and four Practitioner Inquiry courses for EdD cohorts 2016, 2017, and 2018 were reviewed and coded. All required readings,

individual assignments, and projects as well as class and group assignments within the larger classroom for the eight courses over the three cohorts were coded using two themes: *ARCO* or *General Education*. The results of the document analysis were compared to the student survey responses in order to see if the intent of the classroom syllabi aligned with the student perceptions and perspectives as noted above. Additionally, the University of Pittsburgh's Learning Research and Development Center (LRDC) report, the *School of Education "EdD in 3" Faculty Perspectives on Program Design and Implementation* from 2016, was used as a comparative tool to see if student responses from this current survey mirrored feedback in this report. The report included student feedback and faculty perspectives on program design and implementation from the inception of this newly formatted EdD program at the University of Pittsburgh. Lastly, the original School of Education EdD proposal from 2013, *Proposal for New Degree Program: School wide Education Doctorate (EdD)* and the updated proposal from 2017, *Proposal to Modify the Doctor of Education Program (EdD) in the Departments of Administrative & Policy Studies and Instruction & Learning and the Majors in Health & Physical Activity and Learning Sciences & Policy Program in the School of Education* were reviewed. Comparison of the proposals provided insight as to what level of changes were being implemented.

3.3 Setting and Participants

This study took place at the University of Pittsburgh School of Education in Pittsburgh, Pennsylvania and included active members of EdD cohorts 2016, 2017, and 2018. Participants included students from eight areas of concentration (ARCOs) who were then categorized into clusters (Table 2). The school offers a three-year structured Doctor of Education professional

practice degree, built on a cohort model consisting of approximately 53 to 70 students within each cohort. Generally, students are active working professionals who participate in a hybrid-style program with a required monthly face-to-face meeting and then online participation. Students work collaboratively as well as individually on myriad assignments and projects.

The first year of the program is organized as Summer One, Fall, Spring, and Summer Two. Students complete all of their Foundations courses within the first year along with one Practitioner Inquiry course⁴ and two area of concentration courses. Additionally, students participate in a small structured class setting to work through their literature review⁵. The second year of the program consists of Fall, Spring, and Summer. Students complete the remainder of the Practitioner Inquiry courses, the last two area of concentration courses, and their supervised internship⁶ experience during this time. During the final year, students work on and complete their scholarly project, whether in the form of a dissertation or scholarly portfolio⁷. Students have structured benchmarks and requirements embedded in the curriculum that serve as a guide for meeting these required milestones.

⁴ Cohorts 2016 and 2017 have participated in the Practitioner Inquiry 1 and Practitioner Inquiry 2 courses within the first year of their program. Cohort 2018 were enrolled in the Practitioner Inquiry 2 course during their fall term, second year.

⁵ The Cohort 2016 Supervised Practitioner Inquiry course was presented in a large, cohort setting, Cohort 2017 worked directly with their advisors, and Cohort 2018 worked in smaller student/faculty groups based on their ARCO.

⁶ Supervised Internship is referenced as Laboratory of Practice for the 2018 cohort.

⁷ Cohort 2016 were required to complete a dissertation in practice, Cohort 2017 had the option of working on a dissertation in practice or a scholarly portfolio as part of their final project, and Cohort 2018 were required to complete a scholarly portfolio as part of their final project. Students were required to defend their project as they would a dissertation.

3.3.1 Recruitment of Participants

The sample draws from the EdD student cohorts 2016 (n=50), 2017 (n=57), and 2018 (n=52) for a total of (n=159). These were current students active in the program who have taken these courses (or most of these courses) within the timeframe being examined. This timeframe was essential since it allowed students to have a voice in driving potential change in the EdD program. Additionally, the survey had an opening script which informed students of the purpose of the survey and that all information was confidential and thanked them for their time. A paper draft of the survey was emailed to three students who were part of the EdD Cohort 2019⁸. This was a pilot study to see if these students understood the survey content. Opportunities were made available to the students in the pilot study to meet face-to-face or to communicate via phone or email in order to receive direct feedback or ask questions, should there have been a need to clarify survey content. The goal was to verify the survey questions were understood.

3.4 Data Sources

The procedures used in the study included an eight-question student survey (Appendix A) distributed through Qualtrics, an electronic survey system used by the University of Pittsburgh, and an artifact analysis. Data was collected to address the following areas: a) how the Foundations and Practitioner Inquiry courses have benefited students in alignment with their area of concentration (ARCO); b) how it has helped them in the development of a problem of practice; c)

⁸ One of the three students in the pilot study started with the 2018 Cohort and decided to postpone for a year.

whether students have developed a broader understanding in the field of education; and d) whether these courses supported collaboration within and across ARCOs.

The artifacts included the four Foundations and four Practitioner Inquiry syllabi over a three-year period—2016, 2017, and 2018. There was a total of 24 syllabi reviewed covering all three cohorts. The second artifact reviewed was the University of Pittsburgh’s Learning Research and Development Center (LRDC) report, the *School of Education “EdD in 3” Faculty Perspectives on Program Design and Implementation* (2016). The LRDC report included student feedback and faculty perspectives on program design and implementation in the EdD program. Lastly, the *Proposal for New Degree Program: School wide Education Doctorate (EdD)* from 2013 and the updated proposal from 2017, *Proposal to Modify the Doctor of Education Program (EdD) in the Departments of Administrative & Policy Studies and Instruction & Learning and the Majors in Health & Physical Activity and Learning Sciences & Policy Program in the School of Education* documents were reviewed.

3.4.1 Survey

The goals of this survey were to identify if the planned curricular design aligned with student perceptions of the intended learning outcomes. The survey consisted of eight questions, two of which focused on collecting data regarding the *cohort and area of concentration (ARCO)* the students belonged to (Q1 and Q2). The next question captured *student perceptions of how the Foundations and Practitioner Inquiry courses contributed to becoming a leader in their specific ARCO versus General Education understanding* (Q3). The survey also included *how the diverse set of ARCOs contributed to the achievement of the students’ program goals* (Q4 and Q5), and *what other aspects of the EdD program had been most helpful in learning ARCO and General*

Education material (Q6 and Q7). Finally, the survey traced *what had most contributed to learning how to develop a Problem of Practice* (Q8) (Appendix A). The survey was designed using a 5-point Likert scale and the *means* were recorded. Open-ended questions were also used within the survey, and responses were coded by looking at the pattern of consistent and recurring themes that were reported.

3.4.2 Artifacts

The artifacts collected were the Foundations and Practitioner Inquiry syllabi over a three-year period (2016, 2017, 2018). These documents were examined in order to identify similarities and differences in the curricular format or layout. The focus of the syllabi review included:

- who the teaching teams were
- how or if the teaching teams had changed
- changes that have occurred in the syllabi over time
- number of readings, assignments, and activities within each course for each cohort
- the percentage of ARCO and General Education readings, assignments, and activities for each cohort
- what the curricular goals were with the teaching teams
- what area of specialty each faculty member held

Supplementary artifacts collected and reviewed were the University of Pittsburgh's Learning Research and Development Center (LRDC) report, the *School of Education "EdD in 3" Faculty Perspectives on Program Design and Implementation* from 2016. Since information was collected on how students perceive the Foundations and Practitioner Inquiry courses, the LRDC

report served as a comparative tool in exploring the student (and faculty) perspectives from the inception of the newly formatted program in 2014 compared to the last three years. It provided information as to whether students found the course topics being taught provided enough rigor or depth while meeting the student expectations in alignment with the program and program goals. Lastly, the *Proposal for New Degree Program: School wide Education Doctorate (EdD)* from 2013 and the updated proposal from 2017, *Proposal to Modify the Doctor of Education Program (EdD) in the Departments of Administrative & Policy Studies and Instruction & Learning and the Majors in Health & Physical Activity and Learning Sciences & Policy Program in the School of Education* were reviewed in order to better understand the evolution of the changes in syllabi over time.

It is important to understand this information since each component may have an impact on students' learning more General Education versus ARCO.

3.5 Data Analysis

Because there were eight areas of concentration (ARCOs) that vary in size for each cohort, ranging from two (2) to 16 students, the ARCOs were assigned to three different clusters for evaluation purposes—In-School cluster (consisting of Education Leadership; Language, Literacy & Culture; Science, Technology, Engineering & Math; Special Education); Non-School cluster (consisting of Health & Physical Activity; Out-of-School Learning; Social Comparative Analysis in Education); and the Higher Education Management ARCO was its own cluster since it was consistently the largest (Table 2). The In-School Cluster consisted of ARCOs that were connected to K-12 education. Participants in the Non-School Cluster were connected to non-profits, out-of-

school learning, and other organizations that have a non-traditional component of education. Once again, since Higher Education Management was the largest ARCO, it remained its own cluster. Most of these students worked in roles that were wide-ranging within post-secondary institutions.

Table 2. Total Number of Students by Cluster and Cohort (Model/Study Year)⁹

IN-SCHOOL CLUSTER	2016	2017	2018
Education Leadership	10	8	11
Language, Literacy, and Culture	3	9	5
Science, Technology, Engineering and Math	2	2	4
Special Education	6	2	6
Total Number of Students	21	21	26
NON-SCHOOL CLUSTER	2016	2017	2018
Health and Physical Activity	8	9	0
Out-of-School Learning	0	7	3
Social and Comparative Analysis in Education	7	7	8
Total Number of Students	15	23	11
HIGHER EDUCATION MANAGEMENT	2016	2017	2018
Higher Education Management	14	13	15
Total Number of Students	14	13	15
FINAL TOTALS	50	57	52

3.5.1 Survey Analysis

The Qualtrics survey was designed to take no longer than 15 minutes to complete. Some questions had multiple parts. After retrieving the survey results from Qualtrics, information was

⁹ The ARCOs remain stable over all three cohorts with the following exceptions: The Health and Physical Activity ARCO under the Non-School Cluster did not have an ARCO in Cohort 2018. The HPA ARCO was eliminated during the 2018 cohort year because of the small number of students that applied to the program. The Out-of-School Learning ARCO was created and became an option starting with EdD Cohort 2017.

extracted that was placed into an Excel spreadsheet. There were four questions based on a 5-point Likert scale and the *means* were recorded. Although each question had different scale descriptions, the averages were calculated and used as a baseline for comparative purposes. Numerical results were compared to information that was extracted from the artifact analysis in identifying how student perceptions compared to the course syllabi. The study also showed the numerical ranking of how the diversity of ARCOs contributed to student program goals and revealed what other aspects of the EdD program had been most helpful for learning ARCO and General Education concepts and materials. Open-ended question results were placed into categories accounting for recurring and consistent themes. Students had the opportunity to share how the diversity contributed to their educational goals as well as what most contributed to learning how to develop a Problem of Practice.

3.5.2 Artifact Analysis

Syllabi were collected and reviewed for each cohort (2016, 2017, 2018). An Excel spreadsheet was created in which a descriptive code was recorded for each class activity and reading. This process allowed the practitioner to compare and contrast the evolution of course content. Review of the class activities and readings were coded as either *ARCO* or *General Education*. The determination was made by looking at the *intent* of each.

The report by Iriti, Sherer, and Long (2016), the *School of Education “EdD in 3”: Faculty Perspectives on Program Design and Implementation*, was reviewed and used as a baseline since student and faculty feedback was obtained from the inception of the newly formatted cohort-based model of the EdD program that began in 2014. Lastly, the *Proposal for New Degree Program: School wide Education Doctorate (EdD)* from 2013 and the updated proposal from 2017, *Proposal*

to Modify the Doctor of Education Program (EdD) in the Departments of Administrative & Policy Studies and Instruction & Learning and the Majors in Health & Physical Activity and Learning Sciences & Policy Program in the School of Education, were reviewed to identify the vision and overall goals of the curriculum. The practitioner was then able to compare the current curriculum of the EdD program to the original EdD proposal in order to see if the syllabi content aligned with the vision of the newly formatted EdD program.

3.5.3 Triangulation

In concert, the survey and document analysis illustrated common themes and gaps between the curriculum and expectation of what should be taught in the curriculum. According to Turner, Cardinal, and Burton (2017), “triangulation refers to using multiple, different approaches to generate better understanding of a given theory or phenomenon” (p. 243). Triangulation should increase the credibility and validity of the research results. For example, the survey results and document analysis were compared to see if there were similar results.

The benefits of triangulation include revealing unique findings from the variety and quantity of data in order to provide a clearer understanding of a problem. Miles and Huberman (1994) stated that triangulation is not so much a tactic as a way of life. If one self-consciously sets out to collect and double-check findings, using multiple sources and modes of evidence, the verification process will largely be built into data collection as you go (p. 267). Using a mixed methods approach for triangulation in this study provides a robust set of information to draw conclusions regarding the relationship between student perceptions and the intent of the curriculum.

4.0 Results/Findings

In this chapter, results of the artifact analysis of the syllabi for the Foundations and Practitioner Inquiry courses and the Qualtrics survey that was distributed to EdD cohorts 2016, 2017, and 2018 were reported. Additionally, instructors who taught Foundations and Practitioner Inquiry courses to the 2016, 2017, and 2018 EdD cohorts were categorized into the same ARCO clusters as students: In-School cluster, Non-School cluster, and Higher Education Management. The categorization of faculty was based on my assessment of the ARCO they were associated with.

4.1 Artifact Analysis

The goal of the artifact analysis was to answer *Inquiry Question 1: How are Foundations and Practitioner Inquiry courses structured to accommodate areas of concentration (ARCOs), and how has that changed over time?* It should be noted that the Foundations 1 and Practitioner Inquiry 1 courses are taught in the first term of the EdD program, and though separate courses, one syllabus is distributed with the course information for both classes and had been analyzed as a single document. When reviewing all course syllabi, the readings and course activities were coded as either *ARCO* or *General Education*. The readings reviewed were the required textbooks for the course and assigned or recommended information in the form of articles, websites, and book chapters that were documented in the syllabi. Many of the readings were provided on Courseweb, a web-based learning management system used by faculty and students. The course activities

included individual assignments, group assignments, or assignments involving both individual and group exercises during larger class meetings.

The approach to coding was to identify the *intent* of the reading or class activity. If the goal of assigning an article is to ask students to find a way to apply General Education principles or concepts to a specific ARCO, the intent of the reading was considered to be more ARCO-related. For example, an article that addresses student performance in a public-school district is more applicable to the specific ARCO labeled Education Leadership in the In-School cluster. Even though the article may speak more strongly to a specific ARCO than to General Education since it has to do with student performance, the *intent* is to have all students within the various ARCOs think critically about a situation and what steps can be taken to potentially solve a problem. An artifact such as this was categorized as ARCO. Similarly, I considered the *intent* of class activities with regard to *ARCO* or *General Education*. For example, students had a class activity in which they identified an instance where they failed as a leader in their professional or personal roles and then had to write up a case study. Students had the opportunity to present the case study to their assigned groups within the course. The goal was for the group to ask pertinent questions that could help their peers think more critically about leadership, to share ideas and potential approaches to problem solving within the student's professional place of practice, or to offer alternative solutions. Because students were asked to look within their professional practice as part of the activity, I coded this exercise in the ARCO category.

4.2 Foundations Courses

4.2.1 Foundations 1: Framing, Identifying, & Investigating Problems of

Practice/Practitioner Inquiry 1: Inquiry as Practice—Becoming a Scholarly Practitioner

In reviewing the Foundations 1/Practitioner Inquiry 1 syllabus, the 2017 cohort had significantly more readings compared to the 2016 and 2018 cohorts. The 2016 cohort had seven readings, and 86 percent of these readings were General-Education-based. The 2017 cohort had slightly more than three times the number of readings that the 2016 cohort had.

**Table 3. Foundations 1/Practitioner Inquiry 1: Framing, Identifying, & Investigating Problems of Practice/Practitioner Inquiry 1: Inquiry as Practice—Becoming a Scholarly Practitioner
Percentage of Readings and Class Activities for Each Cohort**

Percentage of Readings for Each Cohort			Percentage of Class Activities for Each Cohort				
	2016	2017	2018		2016	2017	2018
ARCO-based	14%	44%	58%	ARCO-based	83%	83%	89%
General-Education-based	86%	57%	42%	General-Education-based	17%	17%	11%

The 2017 cohort had more General Education readings (57 percent), whereas the 2018 cohort had more ARCO-based readings (58 percent). As for class activities, the 2016 and 2017 cohorts were similar as the majority of class activities were ARCO-based (83 percent), with far fewer General Education activities (17 percent). There was a slight increase in the ARCO-based class activities for the 2018 cohort (89 percent), with a slight decrease in General Education activities (11 percent) (Table 3).

4.2.2 Foundations 2: Leadership in Groups and Organizations

In reviewing Foundations 2 syllabi, it was found that both the 2016 and 2017 cohorts had a total of 37 readings, whereas the 2018 cohort had 42 readings. The 2016 and 2017 cohorts were similar in that there was a very high number of ARCO-based readings (95 percent). The percentage of General-Education-based readings was very low (5 percent).

**Table 4. Foundations 2: Leadership in Groups and Organizations
Percentage of Readings and Class Activities for Each Cohort**

Percentage of Readings for Each Cohort				Percentage of Class Activities for Each Cohort			
	2016	2017	2018		2016	2017	2018
ARCO-based	95%	95%	93%	ARCO-based	91%	91%	91%
General-Education-based	5%	5%	7%	General-Education-based	9%	9%	9%

The 2018 cohort slightly varied from the other two cohorts in that their ARCO-based readings were slightly lower (93 percent). Correspondently, the General Education readings were slightly higher (7 percent). The ARCO-based activities were equal across all cohorts (91 percent), and General Education activities made up (9 percent) of the total (Table 4).

4.2.3 Foundations 3: Education Contexts

In reviewing the Foundations 3 syllabi, the majority of the readings were ARCO-based for the 2016 cohort (98 percent), 2017 cohort (97 percent), and 2018 cohort (98 percent). Although all

of the cohorts had a smaller number of General-Education-based readings, the 2017 cohort had the highest amount (3 percent).

**Table 5. Foundations 3: Education Contexts
Percentage of Readings and Class Activities for Each Cohort**

Percentage of Readings for Each Cohort				Percentage of Class Activities for Each Cohort			
	2016	2017	2018		2016	2017	2018
ARCO-based	98%	97%	98%	ARCO-based	100%	100%	100%
General-Education-based	2%	3%	2%	General-Education-based	0%	0%	0%

As in the Foundations 1/Practitioner Inquiry 1 course, the 2017 cohort had significantly more readings compared to the 2016 and 2018 cohorts. The ARCO activities were equal across all cohorts (100 percent) (Table 5).

4.2.4 Foundations 4: Policy as a Lever for Change

In reviewing the Foundations 4 syllabi, the majority of readings for each of the cohorts were ARCO-based with a slight variation. The 2016 cohort rounded off to (88 percent) and had the lowest number of ARCO readings, whereas the 2017 cohort (92 percent) and the 2018 cohort (92 percent) showed an increase (Table 6). Once again, the 2017 cohort had significantly more readings compared to the 2016 and 2018 cohorts. The 2017 cohort were assigned 53 readings, the 2016 cohort had 16 readings, and the 2018 cohort had 24 readings noted in the syllabi. This means the 2016 cohort had 69 percent fewer readings and the 2018 cohort had 55 percent fewer readings compared to the 2017 cohort.

**Table 6. Foundations 4: Policy as a Lever for Change
Percentage of Readings and Class Activities for Each Cohort**

Percentage of Readings for Each Cohort				Percentage of Class Activities for Each Cohort			
	2016	2017	2018		2016	2017	2018
ARCO-based	88%	92%	92%	ARCO-based	92%	90%	100%
General-Education-based	13%	8%	8%	General-Education-based	8%	10%	0%

The ARCO-based activities were similar among the 2016 (92 percent) and 2017 (90 percent) cohorts. The outlier was the 2018 cohort, as 100 percent of their activities were ARCO-based.

4.3 Practitioner Inquiry Courses

4.3.1 Practitioner Inquiry 2: Examining Context Through Inquiry

In reviewing the syllabi for the Practitioner Inquiry 2 course, the only ARCO-based reading assignments across all cohorts were listed for the 2018 cohort (33 percent). The 2018 cohort had 15 readings listed in the corresponding syllabus, whereas both the 2016 and 2017 cohorts had a total of three readings each. The readings for the 2016 and 2017 cohorts were parallel and General-Education-based (100 percent) (Table 7).

**Table 7. Practitioner Inquiry 2: Examining Context Through Inquiry
Percentage of Readings and Class Activities for Each Cohort**

Percentage of Readings for Each Cohort				Percentage of Class Activities for Each Cohort			
	2016	2017	2018		2016	2017	2018
ARCO-based	0	0	33%	ARCO-based	78%	78%	50%
General-Education-based	100%	100%	67%	General-Education-based	22%	22%	50%

In contrast, the General-Education-based readings for the 2018 cohort accounted for over half of the total readings (67 percent). The proportion of the class activities in each category was the same for both the 2016 and 2017 cohorts: ARCO-based (78 percent) and General-Education-based (22 percent). The 2018 cohort syllabus revealed an even split for ARCO-based activities (50 percent) and General-Education-based activities (50 percent).

4.3.2 Practitioner Inquiry 3: Examining Change Through Inquiry

In reviewing the syllabi for Practitioner Inquiry 3, the intent of the readings and activities for the 2016 and 2017 cohorts were ARCO-based (100 percent). At the time of this review, the 2018 cohort had not yet completed this course (Table 8).

**Table 8. Practitioner Inquiry 3: Examining Change Through Inquiry
Percentage of Readings and Class Activities for Each Cohort**

Percentage of Readings for Each Cohort				Percentage of Class Activities for Each Cohort			
	2016	2017	2018		2016	2017	2018
ARCO-based	100%	100%	-	ARCO-based	100%	100%	-
General-Education-based	0	0	-	General-Education-based	0	0	-

Both the 2016 and 2017 cohorts were assigned one reading according to the syllabi as well as four assignments. Three of the four assignments were scaffolded to help students identify their study design and methods for the problem of practice. The fourth assignment consisted of various projects within the modules in Courseweb.

4.3.3 Practitioner Inquiry 4: Applying Disciplined Inquiry

In reviewing the Practitioner Inquiry 4 syllabi, the intent of the readings and activities were ARCO-based for both the 2016 and 2017 cohorts. At the time of the review, the 2018 cohort had not completed this course (Table 9).

**Table 9. Practitioner Inquiry 4: Applying Disciplined Inquiry
Percentage of Readings and Class Activities for Each Cohort**

Percentage of Readings for Each Cohort				Percentage of Class Activities for Each Cohort			
	2016	2017	2018		2016	2017	2018
ARCO-based	100%	100%	-	ARCO-based	100%	100%	-
General-Education-based	0	0	-	General-Education-based	0	0	-

The 2016 cohort had five ARCO-based assignments (100 percent), and the 2017 cohort had four ARCO-based assignments (100 percent). During this artifact analysis, the syllabi did not list any specific readings, though the faculty provided course and project-related readings on Courseweb.

4.4 Faculty Instructors

4.4.1 Faculty Teaching in the Foundations Courses

The content of the syllabi may be influenced by the expertise of the faculty. A review of the expertise of faculty teaching Foundations courses in the EdD program for cohorts 2016, 2017, and 2018 indicated that the distribution of the faculty over each of the three clusters for the 2016 and 2017 cohorts were the same: In-School cluster (44 percent), Non-School cluster (22 percent), and Higher Education Management cluster (33 percent). The variation in the syllabi for the 2018 cohort was matched by the variations in course instructors compared to the other two cohorts in that the percentage of instructors in the Non-School cluster more than doubled (50 percent) compared to the 2016 and 2017 cohorts. There was a slight decrease in the amount of In-School cluster faculty (33 percent) and a more noticeable decrease in the amount of Higher Education Management cluster instructors (17 percent) (Table 10).

Table 10. Percentage of Faculty Instructors by Cluster for the Foundations Courses Overall

Percentage of Faculty Instructors by Cluster for the Foundations Courses Overall			
	2016	2017	2018
In-School Cluster	44%	44%	33%
Non-School Cluster	22%	22%	50%
Higher Education Management Cluster	33%	33%	17%

4.4.2 Faculty Teaching in the Practitioner Inquiry Courses

A review of the expertise of faculty teaching Practitioner Inquiry courses in the EdD program for cohorts 2016, 2017, and 2018 indicated that the distribution of faculty in each of the three clusters varied compared to the Foundations courses, with the exception of the 2018 Non-School cluster. Fifty percent (50 percent) of the faculty members teaching the Practitioner Inquiry courses at this time were in the Non-School cluster. It should be noted that the 2018 cohort had not completed the Practitioner Inquiry 3 and 4 courses at the time of this study (Table 11).

Table 11. Percentage of Faculty Instructors by Cluster for the Practitioner Inquiry Courses Overall

Percentage of Faculty Instructors by Cluster for the Practitioner Inquiry Courses Overall			
	2016	2017	2018
In-School Cluster	40%	44%	17%
Non-School Cluster	50%	33%	50%
Higher Education Management Cluster	10%	22%	33%

For the 2016 cohort, the faculty from the In-School cluster teaching the Practitioner Inquiry courses (40 percent) was fairly consistent with the percentage of In-School cluster faculty teaching the Foundations courses (44 percent). Conversely, the Higher Education Management cluster (10 percent) had a fairly significant drop in instructors—from 33 percent in the Foundations courses. Interestingly, the 2016 Non-School cluster (50 percent) had a significant increase in Non-School faculty who taught Practitioner Inquiry courses compared to the Foundations courses (22 percent). The 2017 cohort was generally consistent in the percentage of faculty instructors from Foundations and Practitioner Inquiry courses. In the 2017 cohort, the percentage of faculty members from the Non-School cluster (33 percent) and the Higher Education Management cluster (22 percent)

teaching the Practitioner Inquiry courses was reversed in the Foundations courses, where 22 percent of the Non-School cluster and 33 percent of the Higher Education Management cluster faculty taught.

4.5 Survey Results

The survey consisted of eight questions, two of which gathered basic information of the cohort and ARCO the participants were associated with (Q1,Q2), student perceptions of the Foundations and Practitioner Inquiry courses (Q3), standard perspectives or the influence of ARCOs (Q4, Q5), program elements (Q6, Q7), and problem of practice (Q8).

4.5.1 Foundations 1: Framing, Identifying, and Investigating Problems of

Practice/Practitioner Inquiry 1: Inquiry as Practice—Becoming a Scholarly Practitioner

The overall goal of the student survey was to answer *Inquiry Question 2: What are student perceptions of the curriculum in helping them reach their ARCO and program goals?* The Foundations 1 (F1) course, “Framing, Identifying, and Investigating Problems of Practice,” is supposed to encourage students to think about the various methods and tools that can be used to identify and solve problems. Practitioner Inquiry 1 (PI1), “Inquiry as Practice—Becoming a Scholarly Practitioner,” mirrors the Foundations 1 (F1) course of Framing, Identifying, and Investigating Problems of Practice. Both courses were taught together in the first introductory term of the EdD program. Since the syllabi for both courses were merged into one larger document, the

F1/PI1 results from the student survey were analyzed similarly. Through this study, students were asked to rate the Foundations and Practitioner Inquiry courses to the extent to which it helped them become a leader in their ARCO versus General Education understanding (Q3). A *Likert scale* was used (5=Strengthened General Education Understanding Mostly, 4=Strengthened General Education Understanding more than ARCO, 3=Strengthened both ARCO and General Education Understanding the Same, 2=Strengthened ARCO more than General Education Understanding, 1=Strengthened my ARCO Understanding Mostly).

Table 12. Foundations 1: Framing, Identifying, and Investigating Problems of Practice/ Practitioner Inquiry 1: Inquiry as Practice—Becoming a Scholarly Practitioner

Student Perceptions of the Curriculum (Mean)			
	Cohort 2016	Cohort 2017	Cohort 2018
In-School Cluster	3.7	3.8	3.7
Non-School Cluster	3.7	4.1	3.8
Higher Education Management Cluster	3.9	3.9	3.3

Overall, students in the cohort 2016 In-School (mean: 3.7), Non-School (mean: 3.7), and Higher Education Management (mean: 3.9) clusters had a uniform view of the course and found more General Education content over ARCO. The 2017 cohort, including all three clusters, also had a fairly uniform view. The Non-School cluster (mean: 4.1) found that the course provided slightly more General Education between clusters. For the most part, the 2018 cohort found the F1/PI1 course to be more general in nature. The In-School cluster (mean: 3.7) and Non-School cluster (mean: 3.8) found a stronger connection to the General Education component compared to Higher Education Management (mean: 3.3). The syllabus outline stated that the course focused on the improvement science process, iterative improvement cycles, and characteristics of problems

of practice. Perhaps students were not able to distinguish the difference in course material and found a balance between ARCO and General Education content (Table 12).

Foundations 1 and Practitioner Inquiry 1 were the two starting courses in the program. Both courses were combined into one syllabus for the 2016, 2017, and 2018 cohorts. For the 2016 and 2018 cohorts, the course books were listed under a section in the syllabus labeled texts, readings, or additional readings. However, for the 2017 cohort, the books were categorized by F1 and PI1. Since the goal of Practitioner Inquiry 1 was to frame problems of practice, it would have been expected to see a balance of both ARCO and General Education understanding, with the possibility of some preference given to ARCO. However, the result did not lean on ARCO education exclusively. One reason for this difference might be the composition of the class. Some of the contributing factors to this difference may have been the variation in career paths, the level of administration students fall under in their organizational hierarchy, and the number of years students have worked in their place of practice.

The syllabus for the 2018 cohort revealed students were required to participate in ARCO exploration assignments through group presentations and communicate with other ARCO members. Additionally, the class was required to complete learning logs, which focused on problems of practice and small tests of change. The final paper revolved around students writing about the improvement science process, as well as analyzing and drawing inferences—which may have stemmed from the learning logs. This change may have been accounted for by modifications in the 2018 cohort curriculum.

The artifact analysis of the syllabi from cohorts 2016, 2017, and 2018 also revealed the 2016 and 2017 cohorts mirrored each other. There appeared to be additional readings added to the 2017 syllabus and one of the required papers varied in approach. Overall, this similarity suggested

why students primarily saw a balance between ARCO and General Education understanding, with more weight on General Education. Since the faculty integrated more improvement science into the curriculum for the 2018 cohort, it may have helped students develop a more systematic way to identify strategies to solve problems and test for change. This new emphasis on improvement science may have also accounted for the Higher Education Management cluster finding more of a balance between the ARCO and General Education understanding. It should be noted that Drs. Tom Akiva, Jill Perry, and Cindy Tananis had been steady instructors in the F1 course—Drs. Tom Akiva and Jill Perry instructed students in the 2016 and 2018 cohorts, while Dr. Cindy Tananis was a participating instructor for the 2016 and 2017 cohorts. Dr. Jill Perry was an instructor for the 2017 cohort as well, having been an instructor for all three cohorts. Even with fairly consistent instructors for F1/PI1, it was clearer in the 2018 syllabus that faculty were encouraging ARCO-based learning.

4.5.2 Foundations 2: Leadership in Groups and Organizations

Table 13. Foundations 2: Leadership in Groups and Organizations

Student Perceptions of the Curriculum (Mean)			
	Cohort 2016	Cohort 2017	Cohort 2018
In-School Cluster	3.4	3.9	3.6
Non-School Cluster	4.0	4.3	4.0
Higher Education Management Cluster	3.5	3.7	3.6

It should be noted that the same instructors taught the Foundations 2 course for the 2016, 2017, and 2018 cohorts, and the syllabi were parallel. This continuity between the instructors and content delivery may have accounted for the consistent proportions found across cohorts. The

emphasis on General Education reported by the Non-School cluster (2016 mean: 4.0, 2017 mean: 4.3, 2018 mean: 4.0) may reflect the course activities might have been more applicable to the In-School cluster (2016 mean: 3.4, 2017 mean: 3.9, 2018: 3.6) and Higher Education Management cluster (2016 mean: 3.5, 2017 mean: 3.7, 2018 mean 3.6). Another possibility was the combination of students in the small breakout groups may not have aligned with the focus or interests of the Non-School cluster. Because students were assigned to smaller, mixed ARCO groupings, where they had to write out and discuss a personal case study in which they had failed as a leader, the Non-School cluster may have had different experiences since their roles as educators vary from the traditional academic setting that the In-School and Higher Education Management clusters may have been exposed to.

4.5.3 Foundations 3: Education Contexts

Foundations 3 (F3), “Education Contexts,” is designed to encourage students to explore institutional and structural features of the educative process within their place of practice. Foundations 3 builds on Foundations 2 by requiring students to use their leadership skills to better serve as advocates in their individual contexts. Since the goal of this course is to look at structural features of the educative process and how they connect to academic and life outcomes, it would have been expected that students would connect this to their General Education understanding. And in fact, overall, the 2016, 2017, and 2018 cohorts had generally similar opinions about the class focusing more on General Education content than ARCO content. Within the 2017 cohort, there appeared to be a bit more difference among all of the clusters (In-School mean: 4.0, Non-School mean: 4.3, Higher Education Management mean: 3.6) compared to the 2016 cohort (In-School mean: 3.7, Non-School mean: 3.8, Higher Education Management mean: 3.8), while there

was a larger difference in the 2018 group compared to both the 2016 and 2017 cohorts. All clusters within the 2016 cohort had found a slightly stronger link between what they were learning to General Education understanding. The 2017 Higher Education Management cluster (mean: 3.6) reported more of a balance between ARCO and General-Education-learning. For the 2018 Higher Education Management cluster (mean: 4.4), there was more of a focus on General-Education-learning from the F3 course, while in the In-School cluster (mean: 3.8), showed more of a balance. The 2018 Non-School cluster (mean: 2.3) was the outlier—they reported the F3 course helped them gain more of an understanding of their ARCO than General Education compared to all other clusters and cohorts (Table 14).

Table 14. Foundations 3: Education Contexts

Student Perceptions of the Curriculum (Mean)			
	Cohort 2016	Cohort 2017	Cohort 2018
In-School Cluster	3.7	4.0	3.8
Non-School Cluster	3.8	4.3	2.3
Higher Education Management Cluster	3.8	3.6	4.4

Several factors may have accounted for these results. Although the same instructors taught the Foundations 3 for the most part, the 2016 cohort had a teaching assistant, and one of the instructors was noted as a guest instructor. The required texts were similar for all cohorts, with some variation. The 2016 cohort had to create a social context problem of practice poster, which may be why they had very similar responses—they were able to personalize the assignment through the General Education content and tie it to their problem or place of practice. In contrast, the required assignments in 2017 and 2018 included a non-performative assessment. This entailed having students review an artifact that stated a specific goal to be accomplished within an

organization; assessing the artifact allowed the student to determine whether the organization is doing what it claimed to be doing. Some students picked an artifact that was related to their organization or direct place of practice, but others did not. Perhaps some of the shifts in readings spoke to the 2018 Non-School cluster, or maybe the social justice context of the non-performative examples and materials provided in class were more connected to their ARCO focus. Since one of the course objectives was for students to look within their place of practice and examine their own contexts through the concept of a non-performative, the Non-School cluster may have found a deeper connection between the course content and their place of practice. However, since there are myriad areas of concentration, sometimes a non-performative could look very different depending on the student's ARCO. This may explain why students found it to be more beneficial for their General Education understanding.

4.5.4 Foundations 4: Policy as a Lever for Change

Foundations 4 (F4), "Policy as a Lever for Change," had similar curricular goals across cohorts. In the syllabi for the 2016, 2017, and 2018 cohorts, there are theoretical and methodological approaches to understanding policymaking and processes by which policies are (and are not) translated into practice. Since the course encourages students to think about how problems are framed and how the framing influences policy implementation, it would have been expected that students would have found a balance of ARCO and General Education understanding. Since the goal of Foundations 4 is to examine, improve, and implement policies, it would have been expected to see a balance between ARCO and General Education understanding the same. Drs. Richard Correnti and Mary Kay Stein were the instructors for the 2016 and 2017 cohorts, whereas two different Higher Education Management faculty members participated in

teaching during one of these years. However, the 2018 cohort had one core instructor throughout the course that differed from past years.

With the exception of the 2018 Non-School cluster (mean: 2.3), almost all results for F4 were rated as strengthening both ARCO and General Education understanding the same, with a little more weight towards General Education (Table 15).

Table 15. Foundations 4: Policy as a Lever for Change

Student Perceptions of the Curriculum (Mean)			
	Cohort 2016	Cohort 2017	Cohort 2018
In-School Cluster	3.7	3.9	3.3
Non-School Cluster	3.8	3.8	2.3
Higher Education Management Cluster	3.3	3.4	3.9

The most surprising was the 2018 Non-School cluster (mean: 2.3) and are the most significant, and to a lesser extent the In-School cluster (mean: 3.3). These students may have found more relevance with the response forms¹⁰, and/or some of the readings spoke to the Non-School and In-School clusters, whereas the Higher Education Management cluster (mean: 3.9) overall might have thought it was more General Education related in alignment with their place of practice. It is a possibility that the In-School and Higher Education Management clusters context was more defined. Maybe they have “heard all of this before” in the context of their practice.

In the 2018 cohort, the F4 course goals further included identifying problems of practice, using data to inform decisions, building partnerships, leading change, and using improvement

¹⁰ Response forms are short summaries or essays which conveys the student reaction or response to an article or required class reading.

science to improve problems of practice. Additionally, there were common readings, which may have had more of a General Education tone, and then an option to select a more ARCO-based reading. Students also had to complete a response form, which may have helped students to break down the meaning of articles—finding a relationship between the author’s points, supporting points and evidence, and for the student to write a reaction to what they found to be the most important for understanding the purpose and main ideas.

4.5.5 Practitioner Inquiry 2: Examining Context Through Inquiry

The objective of Practitioner Inquiry 2 (PI2), Examining Context Through Inquiry, is to teach students how to use inquiry tools and strategies to help them develop into skilled scholar-practitioners. After reviewing the syllabi for the 2016, 2017, and 2018 cohorts, it is noted that the 2016 and 2017 syllabi were exactly the same in course assignments and expectations, and the same instructors taught this course. However, in 2018 the instructors changed, and the course rationale emphasized teaching students to understand and apply improvement science to their problem of practice. The syllabus further elaborated specific learning outcomes to help students design interviews and how to perform a document analysis as well as analyze data. In general, the In-School cluster (2016 mean: 4.0, 2017 mean: 4.0, 2018 mean: 3.9) and Higher Education Management cluster (2016 mean: 4.0, 2017 mean: 4.1, 2018 mean: 4.4) demonstrated steadiness across all three years, where this course strengthened General Education understanding more than ARCO. However, the 2018 Higher Education Management cluster (mean: 4.4) found this course mostly strengthened General Education understanding (Table 16).

Table 16. Practitioner Inquiry 2: Examining Context Through Inquiry

Student Perceptions of the Curriculum (Mean)			
	Cohort 2016	Cohort 2017	Cohort 2018
In-School Cluster	4.0	4.0	3.9
Non-School Cluster	3.6	3.4	3.3
Higher Education Management Cluster	4.0	4.1	4.4

Overall, the Non-School cluster (2016 mean: 3.6, 2017 mean: 3.4, 2018 mean 3.3) found this course to strengthen both ARCO and General Education understanding the same. This course appeared to be more balanced for the Non-School cluster. The Non-School cluster might be the outlier because students have worked with multi-purpose programs such as sports, arts, science and technology, youth development—they may have found the importance of grasping the General Education component as equally important as the ARCO component. It should be noted that the 2018 cohort was in the process of participating in this course when the survey was released and closed out. They had the option of answering “has not completed the course” though most students answered the question. Since the goal of Practitioner Inquiry 2 is to help students identify an inquiry approach, it would have been expected that the results revealed a balance of ARCO and General Education alike, with a possibility of weight towards the area of concentration since there is a connection to a student’s problem of practice.

4.5.6 Practitioner Inquiry 3: Examining Change Through Inquiry

The goal of Practitioner Inquiry 3 (PI3) is to build off Practitioner Inquiry 2 by providing an understanding of additional applied techniques. It should be noted the 2018 cohort was in process of taking the PI3 course when survey results were in process of being analyzed. They were

not able to evaluate this course in the survey. However, the 2017 cohort syllabus revealed a list of inquiry approaches such as improvement science, program evaluation, or action research. The content of the 2016 course syllabus aligned with the 2017 syllabus. However, there was an additional reference sheet for cohort 2016 with information regarding the study of problems of practice along with change and improvement. The sheet informed the student of data collection methods and analysis in order to effectively study problems. The course also moved in the direction of developing a theory of change and choosing a method (survey, interview, focus group, observation) in order to make improvements with the goal of changing and improving systems. The instructional team had changed from 2016 to 2017, with the exception of one faculty member. The Non-School cluster is the outlier (2016 mean: 3.3, 2017 mean: 3.1).

Table 17. Practitioner Inquiry 3: Examining Change Through Inquiry

Student Perceptions of the Curriculum (Mean)			
	Cohort 2016	Cohort 2017	Cohort 2018
In-School Cluster	3.9	3.9	--
Non-School Cluster	3.3	3.1	--
Higher Education Management Cluster	4.0	3.8	--

If the School of Education were looking to provide a curriculum that offers ARCO specific and General Education, the Non-School cluster was trending towards this curriculum compared to the In-School and Higher Education Management clusters. Could it be classroom conventions and activities had changed to become more professional than generalized? Overall, for the 2016 and 2017 cohorts, the In-School cluster (2016 mean: 3.9, 2017 mean: 3.9) and Higher Education Management cluster (2016 mean: 4.0, 2017 mean: 3.8) were fairly consistent in that this course strengthened General Education understanding more than ARCO. Again, it would have been

expected the results would have revealed a balance of General Education and ARCO alike, with a possibility of weight towards the area of concentration since there was a connection to a student’s problem of practice and PI3 served as another building block in researching a problem of practice (Table 17).

4.5.7 Practitioner Inquiry 4: Applying Disciplined Inquiry

The goal of Practitioner Inquiry 4 (PI4), Applying Disciplined Inquiry, is to show students how to use a variety of data collection methods and build upon Practitioner Inquiry 3 in developing skills in quantitative and qualitative inquiry methods and analysis, as well as to decipher the meaning of evidence collected. The 2018 cohort was not yet enrolled in the PI4 course at the time of this study—they were not able to evaluate the course. The 2016 and 2017 cohorts had the same instructors and the only slight difference was the 2016 cohort had to refine their applied inquiry plan with a memo to their advisor—to help further clarify issues or questions students may have encountered. All of the 2016 clusters (In-School mean: 3.3, Non-School mean: 3.1, Higher Education Management mean: 3.5) were fairly similar in that this course strengthened both ARCO and General Education understanding the same.

Table 18. Practitioner Inquiry 4: Applying Disciplined Inquiry

Student Perceptions of the Curriculum (Mean)			
	Cohort 2016	Cohort 2017	Cohort 2018
In-School Cluster	3.3	4.1	--
Non-School Cluster	3.1	3.1	--
Higher Education Management Cluster	3.5	3.4	--

However, the 2017 In-School cluster (mean: 4.1) found that the course strengthened General Education understanding more than ARCO. It might be possible that the group work and activities did not speak to the 2017 In-School cluster. Yet, the Non-School cluster (3.1) and Higher Education Management cluster (3.4) appeared to have found more of a balance between the ARCO and General Education understanding components (Table 18).

4.5.8 Q4: ARCO Diversity and Achievement of EdD Program Goals

The EdD program at the University of Pittsburgh has a diverse set of areas of concentration (ARCOs). As described in Chapter 1, there are eight ARCO's. Each ARCO was designed for students to develop specialized knowledge in their area of expertise. For example, a K-12 teacher may have a strong knowledge base of state and federal policies that are at stake within their place of practice. At the same time, students may be seeking to develop a deeper understanding of how to adapt that policy to the needs of a student on the autism spectrum.

Through this study, students were asked to what extent the diversity of the ARCOs contributed to their program goals. *A Likert scale was used (5=Very Strongly, 4=Strongly, 3=Moderately, 2=Slightly, 1=Not at All).*

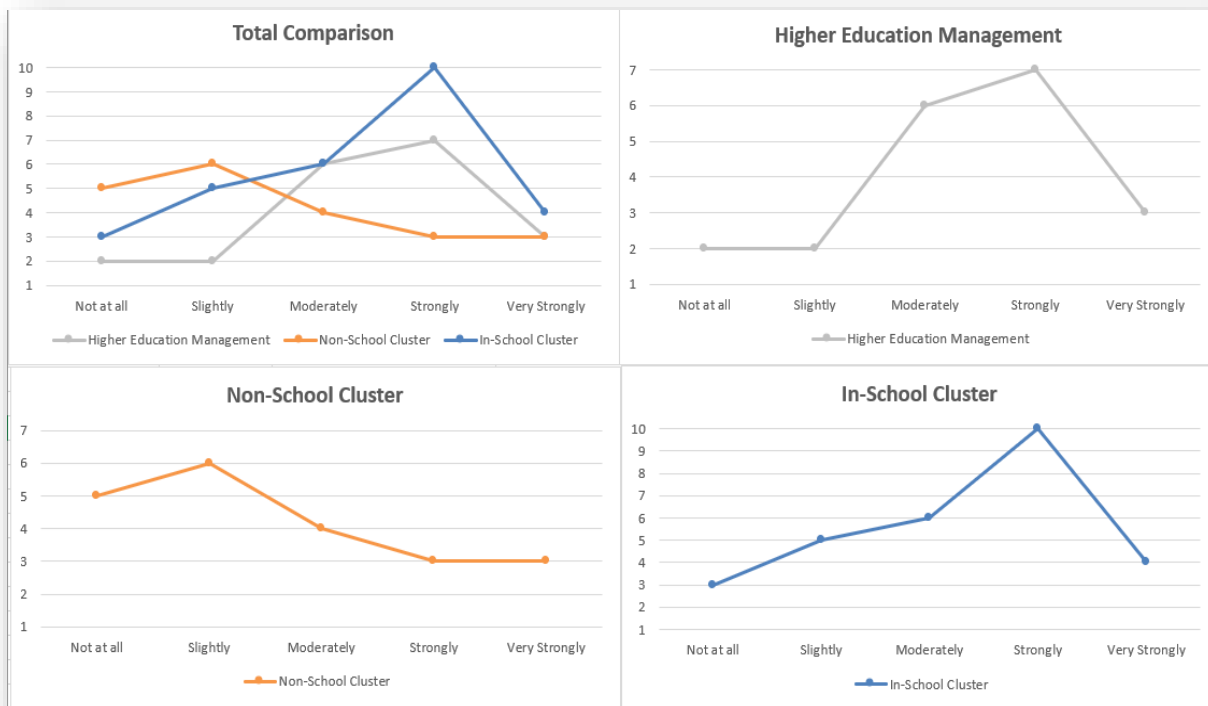


Figure 1. Q4 Diversity of ARCOs

4.5.9 Q5: Explanations of How ARCO Has Contributed to Diversity and Achievement of Edd Program Goals

The Higher Education Management cluster found that the ARCO diversity moderately to strongly contributed to the achievement of program goals. Due to the interrelations in higher education institutions (deans, directors, advisors, program managers) within Higher Education Management, the graduate students may have seen the value of the many ARCO perspectives. For example, a university dean, who has oversight of the advising center, would likely benefit from learning about the processes within advisement. Alternatively, advisors might want to gain a better

understanding about student wellness initiatives. Many systems in this academic setting are interrelated. As far as the value of ARCO diversity was concerned, the respondents in the Higher Education Management cluster rated it highly, as did the In-School cluster.

The In-School cluster felt strongly that the diversity of ARCO's contributed to their programmatic goals. Because the In-School cluster may have had a heavy presence in K-12 and came from a place of practice that has structured policies and procedures in place, they may have seen the practical value of the perspectives of other ARCOs because it gave the students in the In-School cluster an invigorating opportunity to think outside their heavily structured environment. The teacher applying policy to working with a student who has autism is one example. Another example could be while a superintendent may understand abstractly learning via technology, they may get a lot out of sitting in with third grade teachers who share experiences using unexpected applications to teach science or math. The Higher Education and In-School clusters are bringing in doctoral students who primarily work in higher education institutions, which is not necessarily the case with the Non-School cluster.

The outlier was the Non-School cluster. The Non-School cluster have varying places of practice, ranging from a variety of educational institutions to community organizations, government agencies, or related non-profits. Therefore, because their occupations vary in definition compared to other clusters, the Non-School cluster found less benefit from the diversity of ARCOs in meeting their program goals. For example, a doctoral student in the Health & Physical Activity ARCO may work with policy in a different manner. A respiratory therapist may work with patients who have severe asthma and are required to adhere to HIPAA policy, the Health Insurance Portability and Accountability Act, which limits the disclosure of Protected Health Information (PHI). Another example is a student under the Social Comparative & Analysis

Education ARCO analyzes data for those living in poverty or may participate in fundraising activities for their respective non-profit organization. Many of these non-profits have different grant funding agencies that set specified guidelines.

If the ARCO diversity has contributed to your program goals, please explain how:

Students had the opportunity to explain how the ARCO diversity contributed to their program goals. Student responses were placed into five categories: 1) *Different Perspectives*; 2) *Perspectives Outside of ARCO*; 3) *Education Contexts*; 4) *Learning that Fulfills Individual Needs*; 5) *Not Applicable*. The results revealed that 30 percent of students (n=21) found that *Different Perspectives* helped them in their education. One student mentioned, “It opened new avenues of thought.” Another student mentioned, “Understanding the perspectives of others is my biggest personal and educational gain.” Nineteen percent (19 percent) of students (n=13) mentioned that *Different Perspectives Outside of Their ARCO* had contributed to their program goals. For example, one student stated that it had helped them gain some perspective from other areas of the education world. Seventeen percent (17 percent) of the participants (n=12) stated that the larger *Context of Education* helped them to see broader connections. Seven percent (n=5) appreciated ARCO diversity, but felt that their own ARCO was more useful to their *Individual Learning* and that others may not fully understand their particular place of practice. Interestingly, 26 percent (n=18) of students noted that ARCO diversity was *Not Applicable* to their program goals. For example, “The disconnect of ARCO work and general work was stark”—which might mean that they could not connect (or see the value in connecting) material across disciplines.

4.5.10 Q6: Effectiveness of Resources for Learning ARCO Material

What other aspects of the EdD program have been most helpful for learning ARCO material?

All participants had to rank, and priority order the following aspects of the EdD program (*Peers in my ARCO, My Advisor, Internship, Peers from Other ARCOs, and Instructors*). A Likert scale was used (5=Very Strongly, 4=Strongly, 3=Moderately, 2=Slightly, 1=Not at All).

4.5.10.1 In-School Cluster

Across all three cohorts, the highest weight was given to *ARCO Peers* (2016 mean: 4.9, 2017 mean: 4.3, 2018 mean: 4.3) with *Other ARCO Peers* as the lowest (2016 mean: 2.4, 2017 mean: 2.5, 2018 mean: 2.6). *Instructors* were ranked across all three cohorts between moderate and strong as being helpful in learning ARCO material (2016 mean 3.4, 2017 mean: 4.0, 2018 mean: 3.6). Two of the three cohorts had participated in the required *Internship*, and the 2018 cohort had not yet started their internship at this point in time¹¹. However, the internship was ranked moderately to slightly helpful (2016 mean: 2.9, 2017 mean: 3.4). The 2016 cohort found the *Advisors* to be strongly helpful (mean: 3.9) in learning ARCO material, while the 2017 and 2018 cohorts found the *Advisors* to be moderately helpful (2017 mean: 3.5, 2018 mean: 3.2) (Table 19).

¹¹ The 2018 cohort had not started their internship at the time of this survey. The internship had been renamed Laboratory of Practice starting with EdD Cohort 2018.

Table 19. In-School Cluster: Other Aspects Most Helpful for Learning ARCO Material in the EdD (Mean)

	ARCO PEERS	ADVISOR	INTERNSHIP	OTHER ARCO PEERS	INSTRUCTORS
2016 In-School Cluster	4.9	3.9	2.9	2.4	3.4
2017 In-School Cluster	4.3	3.5	3.4	2.5	4.0
2018 In-School Cluster	4.3	3.2	--	2.6	3.6

4.5.10.2 Non-School Cluster

Across all three cohorts, *ARCO Peers* ranked the highest—which had been a consistent result across all clusters (2016 mean: 4.4, 2017 mean: 4.6, 2018 mean: 4.3). However, for the Non-School cluster, the 2016 cohort was unique in the sense that *Other ARCO Peers* were moderately valuable in learning ARCO material (mean: 2.9). The 2017 Non-School cluster (mean: 2.0) aligned with the 2017 In-School cluster (mean: 2.5) and the 2017 Higher Education Management cluster (mean: 2.3) in the overall comparison of *Other ARCO Peers*, but otherwise they were the outlier. For the 2016 and 2017 cohorts, the Non-School cluster (2016 mean: 2.8, 2017 mean: 3.1) ranked *Instructors* slightly to moderately effective in helping learn ARCO material. The 2018 Non-School cluster valued *Other ARCO Peers* (mean: 3.7) and it was the only time a group found value in this category. Additionally, this was the only time instructors tied with ARCO peers (mean: 4.3) in learning ARCO material. Further study would be necessary to learn more about this result. Overall, ARCO peers were the most valued when it came to learning ARCO materials (Table 20).

Table 20. Non-School Cluster: Other Aspects Most Helpful for Learning ARCO Material in the EdD (Mean)

	ARCO PEERS	ADVISOR	INTERNSHIP	OTHER ARCO PEERS	INSTRUCTORS
2016 Non-School Cluster	4.4	3.1	2.4	2.9	2.8
2017 Non-School Cluster	4.6	4.0	2.4	2.0	3.1
2018 Non-School Cluster	4.3	3.0	--	3.7	4.3

4.5.10.3 Higher Education Management Cluster

Across all three cohorts, *ARCO Peers* ranked the highest (2016 mean: 4.8, 2017 mean: 4.1, 2018 mean: 4.6) and *Other ARCO Peers* ranked the lowest, with the exception of the 2018 students (2016 mean: 2.5, 2017 mean: 2.3, 2018 mean: 3.0) *Instructors* were the second most valued resource in learning ARCO material (2016 mean: 4.0, 2017 mean: 3.8, 2018 mean: 4.0). Across all three cohorts, there was a variance in the ranking of advisors. In the 2016 Higher Education Management cluster (mean: 3.8), *Advisors* were ranked between moderately and strongly; the Higher Education Management 2017 (mean: 2.9) and 2018 (mean: 3.3) cluster ranked *Advisors* as moderately being helpful in learning ARCO material. *Internship* fell between slightly and moderately in being helpful (2016 mean: 2.8, 2017 mean: 2.6) (Table 21).

Table 21. Higher Education Management Cluster: Other Aspects Most Helpful for Learning ARCO Material in the EdD (Mean)

	ARCO PEERS	ADVISOR	INTERNSHIP	OTHER ARCO PEERS	INSTRUCTORS
2016 Higher Education Management Cluster	4.8	3.8	2.8	2.5	4.0
2017 Higher Education Management Cluster	4.1	2.9	2.6	2.3	3.8
2018 Higher Education Management Cluster	4.6	3.3	--	3.0	4.0

4.5.11 Q7: Effectiveness of Resources for Learning General Education Material

What other aspects of the EdD program have been most helpful for learning General Education Material (e.g. concepts, practices)?

All participants had to rank, and priority order the following aspects of the EdD program (*Peers in my ARCO, My Advisor, Internship, Peers from Other ARCOs, and Instructors*). A Likert scale was used (5=Very Strongly, 4=Strongly, 3=Moderately, 2=Slightly, 1=Not at All).

4.5.11.1 In-School Cluster

Across all three cohorts, *ARCO peers* still held a high value (2016 mean: 3.4, 2017 mean: 4.0, 2018 mean: 3.7). Additionally, all three cohorts gave a little more credit to *Other ARCO Peers* (2016 mean: 3.7, 2017 mean: 3.1, 2018 mean: 3.4) in learning General Education material versus ARCO content. The only exception is the 2016 Higher Education Management and 2017 Non-School clusters (mean: 2.8)—*Other ARCO Peers* were ranked slightly lower. Across all three cohorts, *Advisors* were ranked slightly to moderately helpful when it came to General Education

material (2016 mean: 2.6, 2017 mean: 3.0, 2018 mean: 2.6). Interestingly, the 2017 cohort ranked *Advisors* slightly higher. It would stand to reason advisors might not have been ranked as strongly overall since they may have a more specialized focus. For example, an education leadership advisor may have been a superintendent in the past, lending their expertise directly to their advisees under the Education Leadership ARCO. *Instructors* were more highly valued in General Education compared to other categories (2016 mean: 3.9, 2017 mean: 3.6, 2018 mean: 3.5) (Table 22).

Table 22. In-School Cluster: Other Aspects Most Helpful for Learning General Education Material in the EdD (Mean)

	ARCO PEERS	ADVISOR	INTERNSHIP	OTHER ARCO PEERS	INSTRUCTORS
2016 In-School Cluster	3.4	2.6	2.3	3.7	3.9
2017 In-School Cluster	4.0	3.0	3.0	3.1	3.6
2018 In-School Cluster	3.7	2.6	--	3.4	3.5

4.5.11.2 Non-School Cluster

Across all three cohorts, *ARCO Peers* in the Non-School cluster were consistently high (2016 mean: 4.3, 2017 mean: 4.1, 2018 mean: 4.3)—a noticeable common theme. For the 2018 Non-School cluster, *Other ARCO Peers* were very strongly valued (mean: 5.0), more so than any other cohort or cluster in learning General Education. For the most part, students in all clusters across cohorts have found *Peers Outside of Their ARCO* more valuable in learning General Education material over ARCO. Because many of the class activities in the Foundations and Practitioner Inquiry courses are in smaller, mixed ARCO groups, it is not surprising that students found peers outside of their ARCOs have contributed to their General Education learning. More

value was placed on learning General Education from *Instructors* (2016 mean: 3.6, 2017 mean: 3.3, 2018 mean: 4.3) over *Advisors* (2016 mean: 3.0, 2017 mean: 3.0, 2018 mean: 2.3). Since advisors have very specific backgrounds, this could be one factor of why students found instructors to be more helpful (Table 23).

Table 23. Non-School Cluster: Other Aspects Most Helpful for Learning General Education Material in the EdD (Mean)

	ARCO PEERS	ADVISOR	INTERNSHIP	OTHER ARCO PEERS	INSTRUCTORS
2016 Non-School Cluster	4.3	3.0	2.6	3.3	3.6
2017 Non-School Cluster	4.1	3.0	2.0	2.8	3.3
2018 Non-School Cluster	4.3	2.3	--	5.0	4.3

4.5.11.3 Higher Education Management Cluster

Across all three cohorts, *ARCO Peers* once again held a high value, specifically among the 2016 cohort (2016 mean: 4.5, 2017 mean: 3.7, 2018 mean: 3.6). Additionally, all three cohorts gave a little more credit to *Instructors* (2016 mean: 3.8, 2017 mean: 3.6, 2018 mean: 3.9) in learning General Education material versus ARCO content compared to *Advisors* (2016 mean: 3.8, 2017 mean: 2.4, 2018 mean: 3.1). The exception was the 2016 cohort as they found instructors and advisors to have almost an equal impact on learning General Education material. For Higher Education Management, the *Internship* (2016 mean: 2.8, 2017 mean: 2.6) did not appear to be significant. Students ranked the *Internship* similarly—slightly to moderately helpful when it came to their General Education learning experience. It should be noted at the time of this study, the 2018 cohort did not complete the required internship. The relatively mediocre numbers on the chart for internship seems to indicate that there was not a significant value attached to the

experience. Defining it in the program, or the value explained more concretely would be necessary in order to enrich the student experience.¹² (Table 24).

Table 24. Higher Education Management Cluster: Other Aspects Most Helpful for Learning General Education Material in the EdD (Mean)

	ARCO PEERS	ADVISOR	INTERNSHIP	OTHER ARCO PEERS	INSTRUCTORS
2016 Higher Education Management Cluster	4.5	3.8	2.8	2.8	3.8
2017 Higher Education Management Cluster	3.7	2.4	2.6	3.0	3.6
2018 Higher Education Management Cluster	3.6	3.1	--	4.0	3.9

4.5.12 Q8: What Most Contributed to Student Learning in How to Develop a Problem of Practice (PoP)

Q8. What most contributed to your learning how to develop a Problem of Practice (PoP) (e.g. course, advisor)?

Students were asked to indicate what most contributed to their learning in developing a Problem of Practice. Answers varied yet had some overlap. The following list highlights frequently mentioned helpful factors¹³:

¹² The internship had been changed to a Laboratory of Practice for the EdD 2018 Cohort.

¹³ The number of helpful factors mentioned is greater than the 69 respondents because some respondents indicated more than one factor. For the same reason the percentages add up to more than 100 percent.

1. Courses/coursework, 36 responses (52 percent)
2. Advisors, 36 responses (52 percent)
3. Student Peers, 13 responses (19 percent)
4. Non-advising faculty, 10 responses (14 percent)

5.0 Discussion

This chapter contains a summary of the study, including the interpretation of the findings, limitations, and reflection.

5.1 Summary

The purpose of this inquiry was to identify strengths and areas of need in an evolving EdD program at the University of Pittsburgh. A program evaluation was conducted at the University of Pittsburgh using a mixed methods approach to address the following inquiry questions:

1. How are Foundations and Practitioner Inquiry courses structured to accommodate areas of concentration (ARCOs), and how has that changed over time?
2. How effective do the students think the curriculum is in helping them reach their ARCO and program goals?
3. How could the Foundations and Practitioner Inquiry courses for the program be improved to help students both see clearer relationships to their ARCOs and better meet program goals?

To answer these research questions, the practitioner collected and categorized the course content (readings, individual and group assignments) of the Foundations and Practitioner Inquiry course syllabi for cohorts 2016, 2017, and 2018 as either ARCO or General-Education-based. In addition, a Qualtrics survey was distributed to the participants in the same cohorts regarding their

perceptions of the emphasis of the curriculum on either their ARCO or General Education. Some survey questions also addressed what resources most contributed to their ARCO or General Education learning. The practitioner compared the syllabi for each of these courses across cohorts in order to discover the extent to which the curriculum aligned with program goals. By examining the syllabi and participant responses, and by assessing how the diversity of ARCOs have helped students reach ARCO and program goals, further recommendations were developed for managing an EdD program (see Section 5.5).

In response to *Inquiry Question 1*, it was found that the syllabi for the Foundations and Practitioner Inquiry courses demonstrated an intent to incorporate ARCO material. This was a pattern within the 2016, 2017, and 2018 cohorts. The more noticeable change occurred when there was a larger shift of course instructors. In response to *Inquiry Question 2*, it was found that students perceived the curriculum within the Foundations and Practitioner Inquiry courses to have more of a General Education focus. One noticeable difference was the 2018 Non-School cluster in the Foundations 3 and 4 courses reported a stronger connection to ARCO content compared to other cohorts and clusters. In response to *Inquiry Question 3*, it was necessary to have a better understanding as to what has helped students see clearer relationships to their ARCOs and better meet goals. Students reported they relied mostly on their ARCO Peers and Instructors in helping them learn ARCO and General Education material. Therefore, the recommendation to help students better understand the relationships between Foundations and Practitioner Inquiry courses is to more carefully integrate course materials and activities that accommodate all ARCOs.

Overall, the artifact analysis of the 2016, 2017, and 2018 Foundations and Practitioner Inquiry syllabi revealed the intent of the readings and class activities/assignments were ARCO-

based, such as a reading assignment on special education reform. Yet, the survey revealed students perceived that these core courses provided more General Education than ARCO learning.

5.2 Interpretation of Results

5.2.1 Inquiry Question 1: Are Foundations and Practitioner Inquiry Courses Structured to Accommodate Areas of Concentration (ARCOs), and How Has That Changed Over Time?

According to the original University of Pittsburgh *Proposal for New Degree Program: School wide Education Doctorate (EdD)*, “Each Foundations course will devote a portion of time to common conceptual knowledge and a portion of time to ARCO specific content” (2013, p. 10). Dedicating time to ARCO specific content may lend itself to provide students with information that is directly related to their ARCO. However, the modification to the original University of Pittsburgh proposal—*Proposal to Modify the Doctor of Education Program (EdD) in the Departments of Administrative & Policy Studies and Instruction & Learning and the Majors in Health & Physical Activity and Learning Sciences & Policy Program in the School of Education* (2017, pp. 9-10) states that students are expected to develop ARCO-related expertise throughout the EdD curriculum. “[T]his tasks the School of Education faculty to design EdD courses that include course projects in which students can investigate and deepen knowledge that is relevant to their ARCO” (p.10). Designing projects that are flexible for all students in different ARCOs may mean the students are responsible to explore ARCO content in their course assignments and projects versus the faculty providing ARCO content directly to the students.

An analysis of the syllabi revealed that the intent of the readings and class activities were indeed ARCO-focused. Overall, there were subtle changes to the syllabi, and more noticeable changes to the syllabi when a shift occurred with the instructional team. For example, the 2018 cohort syllabus for Foundations 4: Policy as a Lever for Change included not only a shift in instructors, but a shift in which cluster the instructor belonged to. For the 2016 and 2017 cohorts, two members of the instructional team were from the In-School and one from the Higher Education Management clusters. In contrast, the 2018 cohort had only one instructor versus an instructional team of three. This instructor was a Non-School cluster faculty member. Based on student responses, the 2018 Non-School cluster experienced more ARCO learning in this course compared to other clusters and cohorts. Across all clusters, the 2016 and 2017 cohorts found more General Education relevance. The 2018 cohort Higher Education Management cluster found more General Education focus, and the 2018 In-School cluster found slightly more of a balance between ARCO and General Education within the Foundations 4 course. While the course structure appeared to be aimed at supporting each ARCO, most students tended to find more General Education in the class.

The fact that the new instructor was experienced in the Non-School cluster area might have partly accounted for the difference in the learning experience in the clusters. The change in instructor seemed to have an impact on how well a specific group of students were able to connect the course to their ARCO. However, what is considered General Education to some may have appeared ARCO-based to others. Therefore, the program will need to achieve the necessary balance that would allow all students, regardless of ARCO, to obtain the concepts and background knowledge to fulfill the program's goals. The changes that occurred in the Foundations 4 course, according to my artifact analysis, revealed that in terms of activities, the 2018 syllabus was 100 percent ARCO-based, and the 2016 cohort (92 percent) and 2017 cohort (90 percent) had a slightly

lower percentage of ARCO activities. It is apparent from the syllabi across cohorts from phrases such as “learning communities” that students were working together in smaller groups. It bears repeating that these groups were intentionally comprised of students from the various ARCOs and only rarely from single ARCOs. The difference I found in the 2018 syllabus was that the smaller learning communities came together for larger, in-class discussions. Because students were placed in smaller learning communities and then were able to share in the larger group with more of their own ARCO peers, it was an opportunity to weave in ARCO content as the syllabus seemed to indicate. In terms of actual student perceptions, however, the varying size of discussion groups may have contributed to their seeing learning as being primarily General-Education based rather than ARCO-based because they had to express their ideas in different contexts with students from other ARCOs. The exception was the Non-School cluster, who felt better able to focus on their ARCOs. It is possible the context for the In-School and Higher Education Management clusters was more clearly defined, which may have given the impression of having “heard all of this before” in the context of their practice. The question then becomes, how does the School of Education structure the curriculum to create an equal balance of ARCO learning across clusters?

5.2.2 Inquiry Question 2: How Effective Do Students Think the Curriculum is in Helping Them Reach Their ARCO and Program Goals?

In addition to coursework, another curricular factor that affected student learning is ARCO diversity, meaning the diversity of areas of expertise within each learning community or even the larger classroom. When students were asked how ARCO diversity contributed to their program goals, the majority (74 percent) believed it provoked new areas of thought. The respondents indicated that for both ARCO and General Education, their own ARCO peers provided the greatest

benefit. The respondents indicated that their non-ARCO peers were more helpful to their General Education. This might explain why students found the Foundations and Practitioner Inquiry courses to be of a General Education nature—since a mix of students from the various ARCOs are intentionally placed together into smaller working groups or learning communities.

Another element that affected student learning was interaction with advisors. According to the original curriculum proposal from 2013, EdD students were to be advised using a shared advising model. This means students would have been assigned an advisor within their area of concentration, in addition to being advised as an entire cohort across ARCOs or as a group within their ARCO. The description for the ARCO group advisor within the proposal emphasized that the advisor would be the point of contact, with an additional support system in place of a student services liaison. The student services liaison was noted as the student's first point of contact with advising upon admission. This individual would have assisted the ARCO group advisor by meeting with students each semester and organizing student workshops, including a dissertation research workshop. The original proposal also stated that in the beginning of the second year, students would have identified a research advisor who would have served as the student's "chief mentor" throughout the comprehensive exam and dissertation research (pp. 21-22).

The 2017 modified proposal, however, which was scheduled to take effect in 2018, did not provide a detailed description regarding advising support and roles as in the 2013 proposal. Instead, it was noted that students would be expected to develop ARCO-related expertise in course projects as well as ARCO coursework. It further tasked the School of Education faculty to design EdD courses that included course projects in which students could deepen their ARCO-related knowledge. More of the burden appeared to be placed upon the student in using the information they would acquire in the classroom with the expectation of applying it to their own context or

problem of practice. Survey results revealed that students considered advisors less beneficial than instructors for guidance in mastering course material. However, students found advisors very helpful in developing a Problem of Practice.

Internships are another curricular factor that can help students reach their program and ARCO goals. However, in general, the respondents indicated that their internships were of little value. One of the contributing factors to this finding is that the School of Education does not currently have a structured internship program. A key variable was the inconsistent roles of individual advisors. Without a set structure or set of guidelines for the internship, advisors were responsible to decide how to approach student internships. One limiting factor could have been that students had often found internships within the confines of their present job. The challenge may have been that because students work full-time, they were unable to find an internship outside of their workspace. If this was the case, identifying a task that contributes to their problem of practice or their professional growth would need to be identified.

5.2.3 Inquiry Question 3: How Could the Foundations and Practitioner Inquiry Courses for the Program be Improved to Help Students Both See Clearer Relationships to Their ARCOs and Better Meet Program Goals?

In order to approach this question, it is important to look at the guiding principles that went into the program design. The CPED Framework consists of three components—a new definition of the EdD, a set of guiding principles for program development, and a set of design-concepts that serve as program building blocks (<https://www.cpedinitiative.org/the-framework>). Although there was no specific mention of ARCO within the CPED framework, CPED emphasizes the importance of a cohesive sequence of courses. However, it is necessary to integrate General Education courses

and ARCO at Pitt in order to achieve this cohesive sequence. The data showed a disconnect between the faculty intentions and student perceptions and suggested that the students see a separation within the courses. Consistently, the Foundations courses were perceived as General Education regardless of what the syllabus stated, suggesting students did not perceive course integration the way the program was intending it. Despite its intention, the program did not yet bring these two elements together. How do we address this? One way is to re-evaluate how the Pitt Foundations and Practitioner Inquiry courses fit the CPED model. Although I do not have any data for this, it may be worth exploring whether courses in the new version of the EdD program repurpose courses that existed before the new EdD without much change. This could be the reason integration was not apparent to students. Closing the gap between the students' perceptions and their program expectations may require course modification.

It is necessary to consider whether it is time to redefine what these courses represent. The connection between student expectation that relates to their goals and their actual experience in the program needs to be consistent. An important question is, what course revisions might improve students' ability to reach their goals through the experiences in these courses? It is important to reexamine student expectations and administrative definitions of General Education in light of student perceptions. The goal of addressing these issues is to provide the maximum benefit to the student by making any necessary changes.

5.3 Limitations

There are several limitations in this study. In analyzing the Foundations and Practitioner Inquiry course syllabi over a three-year period (2016, 2017, 2018), specific criteria were chosen

to evaluate—readings and activities. Readings and activities were categorized as either *ARCO or General-Education based*. The decision was based on the primary intention of each. If instructors implemented the syllabus faithfully, it would have been expected to see the students report that the course was ARCO focused. First, the implemented or taught curriculum might not have matched the planned curriculum. There could have possibly been other areas chosen to analyze. Perhaps, instead of analyzing readings and activities, observation of the actual class could have taken place. If this had been done differently, there might have been a better alignment between intentions and instructional activities. Second, what happened in class may not have always corresponded to the syllabus. It is uncertain if this has happened across cohorts, but perhaps observing the active class would have provided more information as to whether other cohorts might have had similar experiences. What the intent appeared to be was disconnected from what the student perceptions were. Third, faculty members were not interviewed after the surveys and artifact analysis. Gathering information regarding class design and teaching approaches to a larger class with a more diverse set of ARCOs may have provided rich information as to why the artifact analysis and student survey differed.

This raises a question of whether or not the students' responses were based on their feelings or what they actually learned. Student reflections do not always translate to reality. Perceptions might have contributed to how the students evaluated the survey. In turn, perceptions contributed to the attainment of outcomes. For example, if faculty present a great lecture and presentation yet students say they did not learn anything or it does not pertain to them, it can still affect outcomes. Educators need to understand why students feel this way and ask themselves how to fix it. According to Everett (2019), it is important to identify pedagogical approaches and teaching techniques that help students make meaningful and relevant connections across different

disciplines (p. 113). Perceptions can become takeaways even if the perception does not align with the intent.

5.4 Recommendations

The results of this study will be shared at the inquiry site but also to a broader audience. First and foremost, the findings of the survey, artifact analysis, as well as recommendations, will be shared with the School of Education where the research occurred. Given the recommendations, the following changes need to be considered since they support educators in thinking more critically about program management.

5.4.1 Summer On-Ramp

If the first term Summer on-ramp, comprised of the Foundations 1 and Practitioner Inquiry 1 courses, is intended to smoothly merge students into their studies, then it is essential for the School of Education to adhere to its goals and objectives. Summer on-ramp is meant to be an experience that orients students to the next three years of their education, predicated on the idea that when you are starting something, it is very important to get it right. This experience will carry students through the program, set a tone, allow students to develop relationships, get a sense of their Problem of Practice, and introduce ideas of the EdD program. The vision of CPED “is to inspire all schools of education to apply the CPED framework to the preparation of educational leaders to become well-equipped scholarly practitioners who provide stewardship of the profession and meet the educational challenges of the 21st century” (<https://cped.memberclicks.net>). It is

important to set the tone during Summer on-ramp that students are being prepared as educational leaders while making sure they meet both the program goals and their own professional goals. Providing students with an abbreviated version of what they can expect of course instructors and instruction could be a more important feature of Summer on-ramp.

One idea might be that there are two different teaching teams between the Foundations 1 and Practitioner Inquiry 1 courses in order to expose students to a variety of faculty expertise. The make-up of these teaching teams could be a mix of instructors from different ARCOs. Students should have a clear understanding of what the learning objectives of each Foundations and Practitioner Inquiry course are and what each sequence will be like. For example, it would be beneficial to have two separate syllabi for the Foundations 1 and Practitioner Inquiry 1 courses. While the merging of the two syllabi may be well intended, it may not be communicating the course goals clearly enough for students.

If there is a gap in student and faculty expectations and perceptions, it could carry over throughout the program. This could be why students reported the Foundations and Practitioner Inquiry courses emphasized General Education where the syllabus reflected ARCO content. Students should never feel more enthused than during the first term. However, the opportunity to create these positive perceptions can be easily lost.

5.4.2 Tensions Between ARCO and General Education

Tensions between components of ARCO and General Education exist. The School of Education's original proposal claims that their goal was to link these two components and create a balance. The data from the student survey indicated that there was an imbalance between what was perceived as ARCO and General Education. By the end of Summer on-ramp, the disconnect

in the data was not resolved because it carried over into all of the Foundations and Practitioner Inquiry courses, with a few exceptions of student groups finding ARCO meaning within the courses. To achieve more of a balance between ARCO and General Education, the classroom experience must give students greater ARCO exposure. For instance, placing students in ARCO specific small groups in addition to the small groups where ARCOs are mixed may more directly expose students to ARCO content. My perspective, as a practitioner, is that the instructors might want to build more systemic activities between ARCOs if the EdD program at the University of Pittsburgh wants ARCO students to engage more across varying ARCO perspectives—cross pollination from one ARCO to another.

5.4.3 Cohort Model

The idea of the cohort-based program, from an instructional point of view, is that students should go through the educational experience together. All students begin the program at the same time and at the same point of the curriculum; however, because of different experiences and backgrounds, their educational needs may vary. Instructors need to realize that these individual differences exist and not all students learn in the same way. In each cohort there is usually eight ARCOs. Each student's individual ARCO will influence their level of concern regarding the various components of the curriculum. Because each student's circumstances vary at their place of practice, the problems of practice also vary. The end goal is for students to identify a Problem of Practice (PoP) through a meaningful search of relevant literature and a practical understanding of their professional practice. Not every student identifies a Problem of Practice at the same time. It can be complicated. Since the program is limited to three years, students are encouraged to identify a Problem of Practice as early as possible. Since this can be a difficult task, it may be

beneficial to establish a uniform timeframe when all students must determine their Problem of Practice. Instructors need to monitor the individual progress being made in this regard and provide individual feedback. It is also necessary for the instructor to communicate with each student's advisor. Identifying a Problem of Practice may not hold the same challenge for each student. Because students go through this experience together, some students may get a richer experience versus other students.

5.4.4 Advisor/Instructor Relationships

Advisors may have different approaches and expectations for their students compared to those of the instructor. There needs to be a consistent balance between the role of the instructors and the role of the advisor. Making sure advisors are given the opportunity to teach in the EdD program would help the advisor develop an understanding of what is required of the students. Instructors in each Foundations and Practitioner Inquiry course also need to be aware of what students are learning in the other core and ARCO courses.

5.4.5 Facilitation of Learning

Another focus is identifying better ways to implement self-motivation, facilitation, and leadership. Some confusion may come from the mixed messages students receive. Students are in a classroom and they have to extrapolate from the learning to make it applicable to their own context. At the same time, it has to align with the instructor's expectations. Areas of Concentration vary in many ways. Special Education educators may have a very structured approach to their instructional methods, while Out-of-School Learning is very broad. Higher Education

Management students may relate to course material differently because of their differing roles in their places of practice. Collectively, this results in different expectations among the students.

Because the ARCOs vary in many ways, faculty need to assure that the curriculum is accommodating all of the students across ARCOs.

5.4.6 Course Redesign

Another recommendation is to consider redesigning courses. Because faculty have their own areas of expertise, it might be easy for them to weave in specific readings and course activities as the course syllabi are being created. First, the objectives of the course must be established, keeping in mind the integration of ARCO and General Education. Secondly, the measurement of student achievement must align with the new course objectives that integrate ARCO and General Education. One measurement of student achievement is evaluation of each individual student's written work. On the other hand, evaluating class participation in a large group setting is usually not a viable option. However, in a small group setting it is. Although instructors tend to assign mixed ARCO groups, it may be more useful for students to learn more of their own ARCO material if they were assigned to small ARCO specific groups. Third, the necessary enabling goals that are needed for successful completion of the EdD program will vary by course content. One way of doing this is using the *backwards design* model in developing the instruction. Course goals and expectations would be established. From this, lesson content and teaching techniques would be determined. Following the classroom instruction, evaluation and assessment would indicate whether the objectives were mastered (<https://cft.vanderbilt.edu/guides-sub-pages/understanding-by-design/>). Assessment results would determine the next step of instruction. The backwards

course design is a way that faculty can ensure all courses meet the course goals and connect appropriately to other courses.

5.4.7 Rotation of Instructors

An artifact analysis of the Foundations and Practitioner Inquiry courses revealed that many of the same instructors have taught year after year. There are benefits to having a steady flow of faculty teaching the same classes as it creates consistency. It is easier for the faculty to get comfortable as they may reuse their original syllabus over time. Lost opportunities may arise for new and diverse learning experiences. However, the school should consider rotating faculty every three years as it creates an opportunity for all faculty and advisors to get involved. Introducing new faculty into teaching roles in the EdD program will give all students the opportunity to learn from a wider array of instructors—it also gives faculty an opportunity to better understand how different courses work together.

5.4.8 Understanding the Core and ARCO Curriculum

Faculty who teach in the Foundations and Practitioner Inquiry courses would benefit from understanding the goals and objectives of the ARCO courses and how they align with the broader learning environment. Additionally, ARCO faculty should also develop an understanding of the assignments in the larger class meetings and how it might connect to their specific topics. Therefore, one way to ensure that faculty understand the core and ARCO curriculum is to have an annual orientation.

5.4.9 Human Capital

The School of Education would benefit from hiring a course director to oversee the curriculum. Since the department oversees faculty assignments for each EdD course, the individual in this role would be able to focus solely on coordinating faculty/course assignment. The goal is to make sure the courses have the right instructors with areas of expertise to not only meet course goals, but in meeting the overarching program goals. The function of this position would be to provide learning and training opportunities for faculty. The director would be in charge, identifying the different levels of instructional expertise and how it could be used to the school's advantage to provide a richer learning experience for the students. Having a director to oversee the entire curriculum would enhance the overall coordination of instruction.

5.5 Conclusion

As the instructional needs of universities and colleges change, educators must also adapt their teaching methods and course content to follow suit. By maintaining a focus on balancing the Area of Concentration and General Education curriculum in the EdD program, students will have the tools to grow as stronger practitioners in their field—developing skills and knowledge to create educational reform. Through collaboration, research, technology, and strategic thinking, students are being prepared to address challenges faced by today's schools and organizations.

Appendix A Student Survey

Qualtrics Support Wortzman_H_Lessons Learned from an Evolving EdD Program at the University of Pittsburgh

Start of Block: Default Question Block

Thank you for taking the time to participate in this short survey about the EdD Program. Specifically, I am interested in hearing your thoughts about any possible tensions between the Area of Concentration (ARCO) and the General Education component within the evolving Doctor of Education program here at the University of Pittsburgh. I hope that this research study will determine whether students are connecting the core foundational and practitioner inquiry course content with their specialized area of concentration. The survey should take approximately 15 minutes to complete. There are minimal risks associated with this project. Students may experience boredom or frustration with the questionnaire and may take a break from completing the survey at any point in time. Breach of confidentiality is a nominal risk since the survey is completely anonymous. This survey is for the sole purpose of gathering information for my dissertation project at the University of Pittsburgh. This is an entirely anonymous questionnaire, and so your responses are confidential, and results will be kept secure. Study participation is voluntary, and participants will not be compensated for their time. Here is the Human Research Protection Office (HRPO) link for Research Involving Students as Research Participants: <http://www.irb.pitt.edu/content/research-involving-students-research-participants>. Participation or non-participation will have no impact on your grades, letters of recommendation, opportunities or decisions made by teacher-investigators or professional relationships with colleagues and

faculty. If there are any questions or concerns, please contact me, Harriet Wortzman, at hrp9@pitt.edu.

Q1 What cohort do you belong to?

2016 (1)

2017 (2)

2018 (3)

Q2 What is your Area of Concentration (ARCO)?

Education Leadership (1)

Health & Physical Activity (2)

Higher Education Management (3)

Language, Literacy & Culture (4)

Out-of-School Learning (5)

Science, Technology, Engineering & Math (6)

Social & Comparative Analysis in Education (7)

Special Education (8)

Q3 Each core course is listed below. Please rate each in terms of the extent to which it helped you to become a leader in your specific area of concentration versus general education understanding:

	Strengthened my ARCO Understanding Mostly (1)	Strengthened ARCO more than General Education Understanding (2)	Strengthened both ARCO and General Education Understanding the Same (3)	Strengthened General Education Understanding more than ARCO (4)	Strengthened General Education Understanding Mostly (5)	Has not Completed Course (6)
Foundations 1: Framing, Identifying, and Investigating Problems of Practice (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foundations 2: Leadership in Groups and Organizations (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foundations 3: Education Contexts (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foundations 4: Policy as a Lever for Change (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practitioner Inquiry 1: Inquiry as Practice - Becoming a Scholarly Practitioner (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practitioner Inquiry 2: Examining Context through Inquiry (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practitioner Inquiry 3: Examining Change through Inquiry (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practitioner Inquiry 4: Applying Disciplined Inquiry (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 The EdD program has a diverse set of ARCO's (e.g. Higher Education Management, Health & Physical Activity). To what extent has this diversity contributed to the achievement of your program goals?

- Not at all (1)
- Slightly (2)
- Moderately (3)
- Strongly (4)
- Very Strongly (5)

Q5 If the diversity has contributed to your goals, please explain how:

Q6 What other aspects of the EdD program have been most helpful for learning ARCO material?

	Not at all (1)	Slightly (2)	Moderately (3)	Strongly (4)	Very Strongly (5)
Peers in my ARCO (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My advisor (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internship (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peers from Other ARCOs (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructors (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 What other aspects of the EdD program have been most helpful for learning General Education material (e.g. concepts, practices)?

	Not at all (1)	Slightly (2)	Moderately (3)	Strongly (4)	Very Strongly (5)
Peers in my ARCO (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My advisor (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internship (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peers from Other ARCOs (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructors (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 What most contributed to your learning how to develop a Problem of Practice (PoP) (e.g. course, advisor)?

End of Block: Default Question Block

Appendix B IRB Approval Notification

University of Pittsburgh
Institutional Review Board

Human Research Protection Office
3500 Fifth Avenue, Suite 108
Pittsburgh, PA 15213
Tel (412) 383-1480
www.hrpo.pitt.edu

NOT HUMAN RESEARCH

Date:	October 4, 2019
Review Type:	Initial Study
IRB:	STUDY19070065
PI:	Harriet Wortzman
Title:	Tensions Between Discipline-Specific and Field-Wide Learning Communities: Lessons from an Evolving EdD Program at the University of Pittsburgh
Documents Reviewed:	<ul style="list-style-type: none">• Wortzman_H_Qualtrics Survey)_Lessons Learned from an Evolving EdD Program at the University of Pittsburgh• Wortzman_H_STUDY19070065• Wortzman_H_Survey_Version 3_STUDY19070065

The Institutional Review Board (IRB) determined that the proposed activity is not research involving human subjects as defined by DHHS and FDA regulations.

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities are research involving human in which the organization is engaged, please submit a new request to the IRB for a determination. You can create a modification by clicking **Create Modification / CR** within the study.

If you have any questions, please contact the University of Pittsburgh IRB Coordinator, [Emily Bird](#).

Please take a moment to complete our [Satisfaction Survey](#) as we appreciate your feedback.

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