The Impact of an Introductory Course on Ph.D. Students: A Qualitative Analysis of Student Perceptions

Karen E. McIntush
Nazneen H. Askari
Karla A. Garza
Peter Scaramuzzo
Michele Norton
Lynn M. Burlbaw
Texas A&M University

This qualitative case study examined Ph.D. students' perceptions of the impact of a full semester introductory course at a Tier-1 research institution. Results from multiple data sources including open-coded interviews and reflective entries yielded three overarching perceptions of the impact of the introductory class by its first-year students: (1) the establishment of community; (2) contributions to students' knowledge base through cultivation of academic tools within a Ph.D. program, both departmentally and programmatically; and (3) addressing and relieving "imposter syndrome." Results indicated participants benefited from a semester-long introductory course as it contributed to community building and socialization, acquisition of needed skills and dispositions of the field, and assisted in managing imposter syndrome. Additionally, participants offered suggestions regarding course improvement. The study contributes to the body of post-secondary literature, as little work has been conducted on semester-long introductory courses at the doctoral level.

Keywords: doctoral students, introductory course, socialization, qualitative, imposter syndrome

Introduction

Navigating a doctoral program can be a daunting task. The socialization of graduate students in academia occurs in a dynamic environment. Doctoral students begin their program with varied experiences (e.g., research experiences, employment) and must adjust to a new community. Doctoral students are expected to engage in professional academic experiences, often while continuing their pre-doctoral program career, maintaining family responsibilities that may include raising children, and adjusting to the culture of the academy.

As doctoral students enter the academy, a process invariably occurs in which the individual becomes part of the larger community. Previous research finds that successful individuals learn the values and behavioral expectations of the community, imploring the need to navigate membership into their academic community (Shaffer, 2009; Weidman et al., 2001). Becoming a member of the community requires the graduate student to engage in interactions with faculty, peers and the larger academy in meaningful ways that lead them to "acquire the values and attitudes, the interests, skills, and knowledge, in short, the culture, current in the groups of which

they are, or seek to become a member" (Merton et al., 1957, p. 287). Unfortunately, many doctoral students cite lack of understanding of what graduate school entails resulting in disenfranchisement and attrition (Lovitts, 2001). While doctoral students arrive with other experiences, the adjustment to a doctoral program is unique, increasing the need for support to maintain such rigor and adjustment.

Introductory Programs in Higher Education

Introductory courses have been shown to offer benefits to students in higher education. The most common introductory courses are freshman orientation courses that aid college freshmen as they transition into academia. Courses typically cover topics such as study skills, time management, and career exploration and have been shown to have positive effects on general academic achievement, credit accumulation, and degree attainment (What Works Clearinghouse, 2016). First-year seminar courses have also been shown to increase retention and persistence as a result of the support freshman receive from such programs (Shanley & Whitten, 1990; Jamelske, 2009).

Introductory courses are also becoming more popular at the master's level (Tokuno, 2008), likely because a Master's degree is often seen as the "new bachelor's degree" (Pappano, 2011). In fact, 73% of advanced degrees conferred in 2015 were at the master's level (Baum & Steele, 2017). However, graduate school, compared to undergraduate education, has different expectations, especially in regard to the cognitive skills and practices that are to be gleaned from the experience (Rapp & Golde, 2008). While introductory programs at the graduate level are increasing in availability, they are not a given, and often are more varied in degree and type compared to first-year experience courses for undergraduates. The lack of introductory courses at the graduate level lies in "faulty assumptions" that students know how to navigate the university, since they have already done so as undergraduates at another university (Alexander & Maher, 2008, p. 47). Such generalizability cannot account for the variability among institutes of higher education.

Completing a doctoral degree brings a unique experience with heightened challenges involving independent research contributions and analytic competencies (Lovitts, 2008). Students pursuing a doctoral degree face a longer course requirement and period of time needed to complete the degree (Tokuno, 2009). Doctoral degrees can range from three to eight years in length and require significant financial and time commitments. Additionally, doctoral degrees, unlike Master's level degrees, require a thesis of original work, meaning contribution of new knowledge to the field of study as well as analytical skills (Lovitts, 2008). The factors of the financial burden, length of degree completion and an uncertain job market (Rapp & Golde, 2008) along with the impact from psychological stressors are cited for attrition concerns (Smith et al., 2006; Evans, Bira et al., 2018). In a study conducted by Evans et al., (2018) graduate students were found to have higher levels of anxiety and depression. They also struggled to find a healthy mental and physical balance between their academic and personal lives as they navigated the doctoral journey (Smith et. al, 2006). Doctoral students must learn to balance the work-school-life struggles; without the necessary supports within the academy, they may struggle with their overall well-being affecting their performance and potentially their completion of the doctoral program (Martinez et al., 2013; Waight & Giordano, 2018).

Attrition in doctoral programs has historically been high, with completion rates in the U.S. only around 50% (Cassuto, 2013; Schramm-Possinger & Powers, 2015 OECD, 2020; Smallwood, 2004), with most dropouts occurring around the end of the second year of the program both in the U.S. (Dunn, 2014) and in foreign countries (Wollast et al., 2018; OECD, 2020). Causes of attrition are complex, consisting of institutional factors as well as external factors (McAlpine & Norton, 2006; Smith et al., 2006). Understanding these forces sheds light on the need for student support and mentoring as doctoral students transition and complete rigorous program requirements (Rapp & Golde, 2008).

Determining methods of support may allow introductory programs to increase completion rates for doctoral students, those referred to as non-completers (Lovitts, 2008). Doctoral candidates who fail to complete their dissertation, have been found to drop out due to lack of support, specifically from needed mentoring from competent advisors (Castelló et al., 2017; Smith, Maroney et al., 2006). Castelló and associates (2017) classified the four main reasons doctoral students in a Spanish university dropped out: isolation, lack of socialization, the inability to balance home-work-and scholarly life, and lack of resources. International doctoral students studying in the United States experience an even greater transitional experience. They must also adjust to and learn a new culture, while navigating language barriers and a new academic community with potentially different academic and social expectations (Andrade, 2008; Laufer, 2018). Laufer (2018) reported that the international students who discontinued their doctoral pursuits experienced not only financial and cultural challenges, but also issues with doctoral student identity, financial concerns, and social isolation, reasons consistent across research on doctoral attrition.

Few introductory courses have been found at universities offering doctoral degrees. Examples of the few studies that exist include student-led programs with intermittent orientations spaced out over the first year (Mears et al., 2015), a 5-day orientation at the start of the doctoral program (Byrd, 2016), and a fully online orientation course during the first semester (Garcia & Yao, 2019). The authors also found that of the 86 Tier 1 U.S. research universities with similar Curriculum and Instruction Ph.D. programs as the one being studied, only 23 offered an introductory experience for incoming doctoral students, with only a few offering a full semester long course.

Study Purpose

The present qualitative case study investigated doctoral student perceptions on the impact of a semester-long introductory course on doctoral student acclimation to academic life. While research has explored the impact for college freshmen (Thakral, Vasquez, Bottoms, Matthews, Hudson, & Whitley, 2016; WWCH, 2016) and some work on graduate level seminars (e.g., one-day seminars, online orientations) (Benavides & Keyes, 2016), little has been studied to evaluate full-semester face-to-face introductory programs and their impact for providing Ph.D. students the needed skills, dispositions, and support to be successful in a doctoral program. This study serves to expand the literature in this arena.

Drawing upon the researchers' own lived experiences as former introductory course students, an investigatory inquiry was designed in order to ascertain the impact of the introductory course on Ph.D. students' perceptions of preparedness to participate in and complete the Ph.D. program. The research question guiding this study was: What perceptions do Ph.D. students have regarding the impact of a first-year introductory course in a curriculum and instruction program on their acclimation to the academy?

Conceptual Framework

The conceptual framework overarching this study is based on Weidman and associates' (2001) model of doctoral socialization process. Figure 1 illustrates the professional socialization that graduate students engage in as they are acclimated to the program (Weidman et al., 2001) along with the complex development process and the four components of student socialization: prospective students, professional communities, personal communities, and novice professional practitioners. At the center of the framework is the University, which encompasses the institutional culture as well as socialization processes. The institutional culture consists of both academic and peer culture. The socialization mechanisms include interaction with others in the program, integration into the program's epistemology of the faculty and peers, and learning the knowledge and skills necessary for effective professional practice. It is at this core socialization process that doctoral students formally and informally interact with peers and faculty to learn the culture, norms and expectations of the academy. In essence, the epistemic frames (Shaffer, 2009) needed to acclimate are embedded in this socialization process.

Figure 1:
Weidman, Twale, Stein, and Leahy's Graduate Socialization Framework (2001)

Source: Weidman, Twale, Stein, & Leahy, 2001 (Reprinted with Permission from John Wiley and Sons, # 1098666-1*)*

The figure illustrates that this process is not a linear path, but one that is dynamic and evolving, as graduate students interact with and are influenced by the other communities (Weidman & Stein, 2003). According to the model, the process of becoming part of a larger community is “complex, continuous, and development[al]” (p.49). Additionally, the model conceptualizes and addresses the students’ backgrounds and their anticipatory beliefs about the Ph.D. program. By gaining an understanding of students’ backgrounds (e.g., previous education, ethnicity, race, gender, sexual orientation) and the pre-dispositions (e.g., values, career aspirations, learning styles, beliefs) of prospective students, one can better meet their needs while attending the academy (Gittings et al., 2018; Weidman et al., 2001). For the purpose of this study, the University circle is the primary focus in analyzing how the introductory course socialized doctoral students to the culture and processes of the program. The study does not address socialization that occurs outside of the introductory course and its requirements.

The Socialization Process

Socialization to the program and the peer culture as well as identity formation are foundational in a doctoral program (Shaffer, 2009; Weidman et al., 2001). Having peer support has been shown to be valued by doctoral students. Brown (2019) found that students received emotional support and social solidarity through collegial interactions with their doctoral peers. Additionally, doctoral students experienced intellectual collegiality as they became members of research groups who had shared knowledge and experiences. McAlpine and McKinnon (2013) found the collegial relationships developed among fellow graduate students improved graduate student success. Research has also shown the value to doctoral students in creating professional networks as a way to sustain them through the program and beyond to future careers (Fernandez et al., 2019). Such social interactions were found to be equally as important as making academic progress. In fact, socialization is vital for doctoral students to acquire the dispositions needed to be successful and persist in the program (Weidman et al., 2001). Additionally, socialization is one of the first stages in establishing a doctoral student’s identity with their new role as they establish relationships with faculty and peers.

Cohorts have been shown to improve community among graduate students and build peer support (Barnett et al., 2000; Evans & Couts, 2011) as well as improve learning (Evans & Couts, 2011). Cohorts exist when a group of students enroll in the same courses and proceed through a program together thereby providing much needed socialization. Barnett et al. (2000) found the impact of cohorts were most prominent on interpersonal development of graduate students, as well as cohesiveness and professional networking. In essence, cohorts may serve to ease the transition into a doctoral program, knowing the increased pressures that exist in seeking a terminal degree.

Socialization is also vital for understanding the epistemology of the program (Weidman et al., 2001) and often comes through interactions with advisors. Because graduate students enter with such diverse experiences and dispositions, socialization aids in learning the language of the community as was found in Gardner et al. (2014), where socialization educated graduate students on expected behaviors within the academic department. According to Weidman et al. (2001), “Graduate students do not passively respond to specific situations; rather, they actively exert clues to their behavior and continually evaluate themselves in the context of peers, faculty

mentors, program expectations, and personal goals'' (p. 18). In fact, Weidman and Stein (2003) found that the socialization of graduate students as scholars was directly tied to the environment established by the faculty. This included when students were trained and actively involved in scholarly activities and when faculty clearly communicated scholarly expectations, providing encouragement for engaging in such activities. As such, when faculty engage in collegiality and treat students as colleagues, studies show it improved the overall experience for the graduate students and may determine whether they remain in the program (Devos et al., 2017). Additionally, graduate students developed clearer goals in their research progress, improving likelihood for completion.

Acquisition of Academic Skills and Dispositions

Doctoral degrees groom individuals for work in academic settings including explicit skills, not only in teaching, but in research and academic writing. Students at Tier 1 research universities are expected to learn the norms and protocols for working in a rigorous academic environment, navigating the competitive world of publication and original research. The journey through a doctoral program requires understanding the attitudes, abilities, and nuances within the program as reflected by the faculty and other peers (Weidman et al., 2001). Additionally, the acquisition of sufficient cognitive knowledge and skills must occur for effective performance as professionals. Doctoral students need experiences that will develop them for careers in the academic world. Though there is a paucity of literature on introductory courses for graduate students, one study found an online introductory course for doctoral students as instrumental to students exploring their scholar identity as well as developing the skills needed to navigate a doctoral program (Garcia & Yao, 2019). The course also developed increased understanding in research and academic writing protocols.

Researcher Positionality and Course Background

Researcher positionality was a key to the study inquiry. Each of the team members were second year doctoral students having taken the course in the previous year, thereby providing keen insight into the course purpose and its foundation for the program. The 3-hour mandatory course was taught one night a week by a single professor each fall semester. The course provided an overview of the degree program and engaged students in specific tasks to equip them with the tools of the trade. These tasks included reviewing the American Psychological Association's *Manual of Style (6th ed.)* manuscript conventions, identifying key academic conferences, writing a proposal for a conference, identifying critical issues in the field, and using matrices to manage literature reviews. Current department faculty spoke of their research interests and explained opportunities for student involvement, the librarian for the college showed students resources and search techniques, and fellow graduate students from prior years answered questions in an open forum (the course instructor was not present for the forum to allow for more candid answers). Many assignments required the doctoral students to consult with their temporary academic advisor, who was assigned at the start of the program by the various program areas. The pairing of student and temporary advisor was based on similarity of student/faculty interest or student choice – some students were recruited by faculty and were assigned to that faculty member. In some cases, faculty expressed an interest in working with a particular student based on the student's application, essays, and admission interview.

Overview and Methods

The Curriculum and Instruction department at a large Tier 1 research university in the Southwestern region of the United States required newly admitted Ph.D. students to register for a three-credit hour introductory course. Using a case study design which enabled the researchers to gather data from a variety of sources to understand a specific occurrence (Patton, 1990), the researchers examined the perceptions that first year doctoral students had of this semester-long doctoral course. This course is offered each fall and is designed to orient Ph.D. students to the academy to improve the likelihood of students' success throughout their program and toward achieving the goal of completion of a research-focused degree that results in a position at a Tier I research university. The department provides financial assistance to graduate students for a maximum of three years – some students are funded through research grants or other campus employment for longer periods.

Participants

Participants for this study were recruited through an in-person team presentation to the introductory class at the start of the semester. Of the 18 students enrolled in the course, 13 agreed to participate in our study (see Table 1). The students in the course came from various educational and career backgrounds such as a recent graduate from a master's program, an international student, educators working in school systems, and a doctoral transfer student. As part of the pre-course survey, all recruited participants were asked to be interviewed individually at the end of the semester about their course experience. Of the survey participants, a demographically heterogeneous group of thirteen students consented to the interview. The variation of demographic characteristics included, age, experience, ethnicity, religious affiliation, and sexual orientation. Areas of emphasis within the program also varied (e.g., urban education, literacy). Of the 13 consenting participants, six initially scheduled interviews with the team. Coding and analysis were ongoing by members of the research team. While coding and analyzing participants' transcribed interviews, aligned themes emerged among the first six participants contacted for interviews. Despite self-reported demographic and discipline-focus variations, participants began to echo one another in their interpolated responses to interview queries and prompts, which were then grouped by the research team into themes. Themes were determined by research team consensus. Because of the consistency and repetitive prevalence of responses across the interviews, as well as the study's other data sets per the survey instrument and course assignments, it was determined by the research teams to discontinue additional recruitments. Factored into this methodological decision was also a recognition of time constraints related to participant availability within the academic semester.

A table describing the final interviewed sample is provided in Table 2. The sample consisted of five females and one male including Hyeon, an international student whose primary language is not English, and Savannah a third year Ph.D. student who transferred when her advisor moved to the university. Since this is a required course, she was still expected to complete the introductory course. She was chosen by the research team to determine if she felt value was added by completing this degree requirement at her specific stage in the program.

Table 1:
Demographic Data from Survey for Study Participants

Gender	11 Females 2 Males
Ethnicity	5 White, not Hispanic 3 Hispanic 1 Korean 1 Asian, unspecified 1 Italian-German 1 English
Residence of Origin	5 Texas 2 Arkansas 1 Georgia 1 Colorado 1 Kentucky 1 South Korea 1 England
Marital Status	5 Married 6 Single
Children	5 With Children 6 Without Children

Note: Some participants did not provide answers to some questions.

The course professor also served as a participant in the study to provide insight on expectations and goals of the course. Researchers interviewed the professor regarding course history, course intentions, and course content. The course has been offered since 2006 as a support for Ph.D. students. The current professor has taught the course since 2012, adopting a fluid model to address the changing needs of each cohort of graduate students. The course content was modified to meet academic needs of incoming Ph.D. students with goals of preparing them for research faculty positions in Tier 1 research institutes. The professor's framework for the course was based on developing epistemic frames as described by Schaffer (2009). The epistemic frames hypothesis emphasizes that each community has a culture whose structure includes the skills, knowledge, identity, values and epistemology of that community. Course assignments and tasks were designed using this framework. Overall, the information obtained from the interview served as a foundation when considering what the graduate student participants gleaned from the course.

Table 2:
Details of Interview Participants in the Introductory Cohort

ID	Age Range	Ethnicity	Gender	Marital status	Area of Emphasis	International student (Yes/No)
Madison	30-35	White, not Hispanic	Female	Married	Literacy	No
Hyeon	30-35	Korean	Female	Married	ESL	Yes
Savannah	36-40	White, not Hispanic	Female	Single	Literacy	No
Gabriella	22-25	Hispanic	Female	Single	Science	No
Janice	30-35	White, not Hispanic	Female	Married	Urban Education	No
Darren	30-35	White, not Hispanic	Male	Single	Literacy	No

Data Sources

A variety of data was collected throughout the semester from the cohort participants for triangulation purposes. Data sources included a pre-course survey with Likert-type questions, demographic questions, and open-ended survey questions, as well as open-ended interviews with the doctoral students and the professor, the class syllabus, and course assignments. Two specific course assignments were utilized; a *Goals and Fears* task and the end-of-course reflection. For the *Goals and Fears* assignment, doctoral students responded to two prompts that asked them to list their main goals coming into the program and their top fears or concerns about being in the program. The end-of-course reflection, served as another source of data, where students reflected on the course content and its potential value. Thirteen of the eighteen course reflections were used to validate themes found through other collected data, consisting of six open-ended questions regarding the value of the course to their future endeavors. Semi-structured interviews with six participants were conducted during January and February following their participation in the introductory course. A concurrent collection of data over the course was conducted which included: a semi-structured interview with the course professor regarding course history, expectations and intended student outcomes; and a content analysis which established the different coaching and mentoring experiences participants received from the course content to identify specific skill development identified by the professor.

Procedures

Using Arskey and O'Malley's (2005) methodological framework, a scoping study was conducted to review relevant literature related to this inquiry. Initially, the study was reviewed and approved by the university's IRB to ensure ethical standards were followed. Recruitment of students occurred in person in September of the cohort semester. Once participants provided consent, they received the pre-course survey that provided researchers with demographic data as well as the perceived skills and dispositions each brought into the program. The initial class assignment, *Goals and Fears*, along with the pre-course survey information was used to establish the doctoral students' initial perceptions of their skills and program expectations at the entrance into the program.

All student interviews occurred at the start of the second semester of the Ph.D. program. A 2:1 ratio was used, with two researchers attending each interview per participant to monitor potential validity and ethical issues. Given the researchers' familiarity with the introductory course, having previously taken the course, and the overall program itself, semi-structured interview questions and protocols were constructed consistent with Seidman's (1991) recommendations for interviewing. Audio recordings were made to ensure accurate information was collected, from which transcriptions were created. Once transcribed, the interviews were de-identified.

Following a grounded theory approach (Glaser & Strauss, 1967; Strauss & Corbin, 2015), the researchers open-coded class documents as well as professor and student interview transcripts employing an emergent design, resulting in the identification of recurring themes (Riessman, 2008). Each interview was coded by two research team members to identify emergent themes. Once major themes were identified, a second round of coding occurred to obtain relevant quotes pertaining to dominant themes which were placed into a matrix. A coding rubric was created upon identification of initial themes (see Table 3) and served to clarify definitions of themes among the research team, provide overarching examples, and served to validate all researcher coded themes.

The final course reflections were used to supplement, adding additional data to triangulate the findings. The final course reflections were coded using the themes established from the coding rubric. Reflections offered additional insights and support to our interview findings. The content analysis, along with the interview of the course professor, provided a framework upon which to analyze the participant responses. Understanding the types of activities, as well as the professor's intent, shed light on the doctoral students' perceptions of the course's impact on socializing them to the academy.

Findings

The varied data sources provided a variety of perspectives, allowing the data to confirm or refute themes discovered in the analysis. To lay a foundation for the course, an interview with the professor was conducted along with the content analysis of the course syllabi; those findings will be discussed first and integrated throughout the thematic findings. Next, the data from the pre-course survey and the *Goals and Fears* assignment provided a reference point on how the

Table 3:
Coding Rubric for Themes: First Semester Doctoral Students Perceptions of an introductory Course

Themes	Definition	Example Quotes
Community and Socialization	Building relationships with peers and faculty aid in the transition to graduate school and are key during the first semester of a doctoral program. The ease into the program occur when community and socialization are fostered in the course.	"Getting new innovative ideas and building relationships that you will carry on for the rest of your professional career." (Savannah). "And then after meeting everyone we immediately transition into [the course] that was like the center of my community that was what kept me "you do have a community"." (Gabriella)
Cultivation of academic tools	Entrance into a doctoral program requires the acquisition of the skills and dispositions needed in academics. Opportunities to learn and practice those skills in a safe environment create a community of scholars.	"Setting up ORCID was great. Doing little things and having them done. Not just having them done, but explaining why they were needed was great." (Savannah) "[The professor] had this template of how to complete IRB, and that really helped me, or helped everyone (Hyeon)
Imposter Syndrome	Doctoral students experience feelings of inadequacy and feel their work and ideas are unworthy. As a result, they may appear confident, when inside they are overcome with anxiety.	"There's that perception that you're a PhD so you should just know things." (Janice) "Our professor has done a great job of saying it's ok to feel that anxiety because this is the first time in 17 years you have not been in an environment that you know and can control." (Darren)
Course Improvements	Concerns arise when students realize they are not getting access to all the tools or advising they need to pursue a doctoral program. This creates feelings of frustration and of being overwhelmed of all they will still need to learn.	"A lot of us felt like it would almost be more beneficial if [the course] was a two-semester course. I see the benefit in it. It's really hard to cram it all in in one semester…. I feel like if it was split across two semesters at least there'd be more time for discussion and developing the product that we're creating. (Janice). "I would have definitely loved to learn more about how research is aligned and correlated with grants." (Darren)

participants perceived themselves and their competencies at the start of the program. Finally, themes that emerged from the data will be discussed and how the findings converged.

Course Intentions and Content Analysis of Syllabus

Review of course intentions and the syllabus were instrumental in providing the professor's perspective early in the study in order for researchers to analyze how intentions aligned with course impact for doctoral students. The findings from the interview with the professor and content analysis revealed the rationale behind tasks asked of students. Interview findings revealed the professor's intent regarding course content that supported the epistemic frames needed for successfully entering the academic community (Schaffer, 2009). The acquisition of knowledge, skills, and dispositions of academia were goals the professor desired for the graduate students, which would be learned and fine-tuned through the designed course activities. Purposeful intent for participants to establish a sense of identity and community through the cohort and faculty interactions was specifically embedded in course assignments, which promoted transmission of the epistemology by the temporary advisor and the academic community to the doctoral student. Additionally, and to ease the student concerns, the course professor consistently stated that no matter what advice the students received, the temporary advisor was the "final authority" (personal communication, 2019) to ease any confusion that might have arisen between course advice and academic mentoring.

A content analysis was performed on the class syllabus and resulted in identification of 25 separate tasks. Using emergent coding, researchers sorted assignments into three categories: mentoring, coaching and self-directed experiences for the doctoral students. The course tasks were intended to encourage interaction with temporary advisors, the course professor, and other members of the academic community in each of the three identified categories. Analysis revealed that seven (28%) assignments were consistent with definitions of *mentoring* tasks, which included activities such as completing the adequate yearly progress document for the program, participation in graduate presentations, interactions with faculty guest speakers, and identifying and summarizing key areas in a specialized research handbook. Nine of the tasks (36%) were classified as *coaching* activities. These assignments included creating a personal curriculum vita, researching a leading scholar in a student's particular field, identifying and submitting a conference proposal signed by their advisor, identifying and summarizing critical areas of research, and identifying relevant educational journals. The other nine activities (36%) were *self-directed activities* by the cohort that refined specific skills needed for the academy. This included completing the tutorial on APA modules, creating a reference database, and creating a literature matrix for current research. Overall, the professors' intent was aimed at helping Ph.D. students "tame the dragon" as they learned to engage with their faculty advisor and other senior faculty and graduate students to build a supportive community (personal communication, 2018).

Insights from Doctoral Students

A comparative method was employed in analyzing the course assignments, interview data and end-of-course reflections. Results on the six open-coded interviews and course reflections yielded three overarching perceptions of the impact of the introductory class by its first-year students: (1) the establishment of community; (2) contributions to students' knowledge base

through cultivation of academic tools in a Ph.D. program, both specific to their department's requirements and to the Ph.D. program in general; and (3) addressing and relieving "imposter syndrome" (Cowie, et al., 2018). Each participant held similar perceptions of the impact the introductory course had on their first semester as a doctoral student, though continuing needs varied on some level.

Community Building

Entrance into a doctoral program means leaving behind a familiar environment and entering the unknown. To take on such an endeavor requires support from many sources to ease the transition into academia. At the start of the program, areas that weighted heavy in their comments revolved around socialization, including building strong relationships with cohort members and networking with others within the department. In fact, several mentioned "building relationships with other doctoral students" as a goal they had set for themselves (*Goals and Fears*, 1) as well as "learning about the department and the community" (*Goals and Fears*, 6).

Participants all agreed in their pre-course survey, *Goals and Fears* assignment, interviews and reflections that building community in the new setting is vital for establishing roots in this new environment, including support from advisors. One intentionally embedded goal of the course professor was to "help develop that mentoring relationship" with the temporary advisor (Professor Interview). This goal served Darren well, who credited the advisor for helping him pursue his passion stating "the relationship I have with my temporary advisor has allowed me to do that" (Interview). The department and the course instructor believed building an academic community should start initially with the temporary advisor assigned to the doctoral student. However, some students found their advisors inaccessible when seeking advice to complete the course assignments. Fortunately, course requirements pushed faculty members to engage with their new doctoral students more regularly. Regardless, Gabriella appreciated the "assignments that require you have to go see your advisor, that's been additionally helpful" for building connections with the advisor (Reflection).

While having a quality advisor is paramount to success in the overall program, graduate students found that mentorship through their peers in the cohort provided a unique opportunity to ask questions they might not otherwise feel comfortable asking their advisor. Insights from one international student participant reiterated the importance of having others with whom she could discuss her concerns. She felt that she had "specific questions or concerns... so I talk to these people that I have, and that's more comforting, and I guess it helps me a lot, like going through stresses, difficulties" (Hyeon, Interview). This finding is consistent with previous research on cohort support where graduate students network and create strong bonds with their cohort (Barnett et al., 2000; Evans & Couts, 2011). Participants felt that being in a cohort in the introductory course that provided opportunity to ask questions brought about the realization that everyone had similar feelings of insecurity. These findings are consistent with the knowledge acquisition of institutions acquired through the socialization processes (Weidman et al., 2001) and the internalization of the institutions' epistemic frames through induction by community members (Shaffer, et al, 2009).

The theme of community building with their peers echoed strongly through the data and was perhaps best described as, "transition into [the cohort], that was like the center of my community" (Gabriella, Reflection). One reflection stated that "meeting together as a cohort helped establish a bond", a vital component towards acclimation into the new program (Reflection 7). Since each doctoral student experienced similar struggles, they were able to lean on each other for emotional support, as has been found in previous research in developing social collegiality (Brown, 2019). Participants expressed how they "shared a lot of common challenges, difficulty or feelings that [they] have as a first year" doctoral student (Hyeon, Interview).

The relationships built throughout the semester also provided students the chance to share ideas and collaborate with others. "Getting new innovative ideas and building relationships that you will carry on for the rest of your professional career" were benefits of building community within the introductory course (Savannah, Interview). Even though participants had vastly different backgrounds, they were able to draw connections among cohort members. Darren noted that he was able to build "relationships with people from ...other academic areas" and seek out ways to collaborate (Interview). Furthermore, he described the importance of the community aspect they built by expressing "they are people I can collaborate with and call on for future things" (Darren, Interview). The same participant's reflection revealed appreciation for the explicit plan of the course professor to create community, and he expressed gratitude for the approaches used that "encourage[d] dialogue and active participation in a non-threatening, non-traditional way."

Overall, the creation of a cohort community, developed through intentionally embedded collaborative course activities designed by the professor, nurtured relationship building. The interactions within the course contributed to feelings of security in the program and encouraged collaboration across the disciplines, creating an avenue to practice important scholarly activities with both faculty and peers.

Acquiring Academic Tools

At the start of the semester, student responses on the pre-course survey as well as the *Goals and Fears* assignment indicated many students were coming into the program with moderately high efficacy in specific work habits such as completing tasks on time, coping with stress, working collaboratively, and accepting constructive feedback. Additionally, some participants felt they possessed certain skills including finding professional conferences, writing papers using the APA format, finding important journal articles in their field, and the overall structure of research articles.

While many did profess competence in writing and formatting, many expressed concerns in both the survey and course assignments. Specific concerns revolved around improving their research skills by understanding the process more thoroughly and regarding the ability to navigate the writing-to-publication path. In both the pre-course survey and *Goals and Fears* assignment, participants expressed concern about balancing their home and work life with their doctoral program. The balancing act, which heavily involves skill in time management, has been listed as the top concern among 474 first-year graduate students in a study conducted by Educational Testing Service (Schramm-Possinger & Powers, 2015).

Participants in this study found they developed skills through the course that are necessary to successfully navigate their doctoral program, which is similar to previous findings on skill development in an online introductory course for doctoral students (Garcia & Yao, 2019). The findings also align with the course professor's intent for the doctoral students as well as the academic exercises in which students engaged during the course. When the given assignments were viewed as scholarly in nature, the students viewed them as relevant, further aiding in socializing graduate students as colleagues in research. An example of this was one of the identified coaching activities, the conference proposal assignment. Students were expected to, in consultation with and by obtaining approval from their temporary advisor, identify a conference and write a proposal for submission, thereby modeling an academic practice needed in the field. Janice acknowledged lack of awareness of the "breadth of conferences and organizations that exist, nor did I understand the process for submitting proposals to each" (Reflection). She expressed appreciation for the structured assignments that were instrumental in connecting her with her temporary advisor and acknowledged she "probably would have avoided contacting my advisor with the excuse of time" (Reflection) as a result of the struggles of being a full-time teacher.

Academic skills were also built through collaboration with temporary advisors and cohort peers. Janice noted that being allowed to collaborate with others in her area of emphasis improved the proposal writing experience. She noted "it was really cool to work with people, and then spawning out of that, we now have this group that's holding each other accountable for writing, so we're forming a writing group" (Reflection). In essence, and by way of specifically designed course assignments as revealed in the content analysis, she was able to acquire specific skills and experience professional collaboration needed as a scholar in her field through the course.

Doctoral students acquired other skills in the introductory course as a result of coaching and other self-directed activities. Specific practices identified by the students as useful in developing a repertoire of skills were initiating and completing an Institutional Review Board (IRB) application initiating a new project, updating and refining curricula vitae, and identifying and using appropriate research handbooks and other library resources. Almost all participants noted the value of developing a reference database, and many found creating their degree timeline useful for planning out their doctoral career path.

One course reflection summed up the value of the academic tools she acquired, which included working:

> carefully with my advisor to iron out the many kinks in my degree plan reading over half of the articles in the enormous handbook I checked out from [the library], turning my modest RefWorks database into a collection of over a hundred works now organized neatly into research interest folders, identifying two new journals to which I'll submit abstracts this spring, and submitting my conference proposal to [a conference] (Participant 10).

Students found value in learning foundational skills needed in the profession. Savannah, the third-year doctoral student, emphasized the course's value, saying, "I was in a weird position

because I am a third year, so I saw a lot of the activities to be SO HELPFUL that many in the class may not see yet [emphasis in original]" thus validating the need for the skills being taught. She also acknowledged how she authenticated the usefulness of skills in class to her colleagues based on her position.

The students all reported that the introductory course contributed to their Ph.D. knowledge base by opening avenues to potential projects in which they could become a part. Therefore, hearing professors speak about their research proved especially beneficial. Students felt visits to class by other professors provided an open door to contact faculty members with similar interests and possibly collaborate on future research projects. Savannah found it valuable "to know who is out there and what they are doing and what they are working on" (Interview). Having professors share their research with graduate students provided an avenue to pursue, taking away the awkwardness of a random contact or meeting request. As Darren phrased it, "it was an automatic in to go ahead and reach out instead of being that awkward Ph.D. student" (Interview) when seeking to join a research team of interest. Not only were doctoral students able to identify people with whom they could collaborate, the experience also made them "feel like part of the department" (Participant 10, Reflection). One of the most noted benefits of the course was the realization that each professor with whom they came in contact was a potential committee member.

Overall, the participants indicated that through the course they gained knowledge that prepared them for academia beyond the classroom as well as presented available opportunities for collaborating and networking with faculty. Doctoral students discovered opportunities to engage in relevant activities with faculty and peers, which further enhanced their skill sets.

Managing "Imposter Syndrome"

A major challenge to the doctoral student is that of imposter syndrome. Imposter syndrome, originally studied in high achieving women, is where individuals do not feel they are competent or smart enough to be in the program in spite of their accomplishments (Clance & Imes, 1978). Individuals feel like imposters in that they have fooled others into thinking they belong in the academic community, and, in fact, are products of timing and good luck (Clance & Imes, 1978; Pishva, 2010). In the words of Dr. Valerie Young (2017), individuals possess a "distorted unrealistic unsustainable definition of competence." This syndrome has been found increasingly in high achieving men and women, adding additional stress to their transition into graduate school. This phenomenon may lead to depression among college students at any level, negatively impacting academic success (McGregor, Gee, & Posey, 2008).

Imposter syndrome was explicitly mentioned by a few participants in the *Goals and Fears* assignment, while others indicated implicit references to the concept. For instance, the beginnings of imposter syndrome (Cowie, et al., 2018) were present at the onset of the program with comments such as "If I am qualified enough" (*Goals and Fears,* 15) or expressing "self-doubt" (*Goals and Fears,* 1) as well as concerns over the ability to build a competitive curriculum vita, be competent in research methods, and find an academic position upon graduation.

While only a few participants used the phrase *imposter syndrome* to describe their feelings about being in the program, references to imposter syndrome characteristics were prevalent among all the participants' interviews and reflective responses. Of the six interviewees, five specifically made mention in their interviews of feelings of insecurity and anxiety about belonging in the program, in essence questioning their identity as future academics. Darren mentioned in his interview feeling like an outsider coming into the academy. Gabriella felt that she had "gone from small fish to a big bubble" making for a difficult transition (Interview). Faculty were held in high regard concerning academic knowledge, where "faculty just seemed like magic to me and it was hard to think of questions that didn't sound dumb or not-thought-through enough for them" (Gabriella, Interview).

New doctoral students were not comfortable in their own expertise in spite of the fact that they had been admitted into a top Tier 1 research institution. Feelings of imposter syndrome were exhibited by not feeling like an expert worthy of sharing knowledge (Janice, Interview). As she reflected on her expertise, she wondered "when I'm supposed to do presentations, how am I supposed to do a conference presentation if I'm not an expert yet? What do they even want to listen to me talk about?" Being surrounded by so many experts at the university as well as peers with rich experiences caused her to doubt her own expertise, challenging her identity in the program. The course opened opportunities for the doctoral students to become comfortable with their own expertise through collaboration with their cohort as well as interactions with faculty members who shared areas of research interest.

Similar views on imposter syndrome were held by those with varied lived experiences. Hyeon, an international student, expressed concerns of inadequacy upon entering the program, stating:

> ...it seems like everyone has a lot of professional experience because many of them come back from their work, so they have a lot of experience, like field experience, but for many Asians ... not to be stereotypical... they just keep continuing their studies from bachelor's to master's to doctoral studies, so they have this feeling of, 'Okay, I don't have that experience. What do I have to do? And I don't have much knowledge in the field, the practical area. (Interview)

However, being in the course provided her an opportunity to connect to the community and share differing experiences and learn from each other as she progressed through her newly forming identity. Hyeon noted "it was relieving that I am not alone in struggling, so it helped me in a sense that we are all the same. We are all at the starting line, so it helped me in the emotional …aspect." The third-year Ph.D. student also experienced imposter syndrome by not possessing as many credentials as her colleagues. Her impression was that "a lot [of other students] came in with …. higher accolades… you know, [I am a] small town country girl" (Savannah, Interview). Her personal identity and feelings of inadequacy manifested in her perceptions of self and others. Yet, participating in an introductory cohort alleviated some of her anxieties, even as a third-year doctoral student, as "for the first time I felt like I was collaborating…. getting new innovative ideas and building relationships."

One way to handle imposter syndrome is nested in the idea of community building. Having time to converse with peers provides the realization that everyone has similar concerns and are

experiencing feelings of inadequacy (Pishva, 2010). While participants experienced imposter syndrome at some point their first semester, they noted how the introductory course provided a means to manage those feelings and become secure with their new identity, part of the intent of the course professor to acclimate new doctoral students to the academy. While Savannah had these feelings of insecurity, she felt that "maybe [other students] had a higher level of doing all of this, or 'I have already done this.' But when you get deeper in conversation, you realize, 'oh no, you haven't already done this'" (Interview). Part of being in the introductory cohort at the onset of being in the new university, even as a third-year student, was key to her transition and the realization that she was not alone. Participants felt that being in a cohort in the introductory course provided an opportunity to ask questions in a safe environment which brought about the realization that everyone had similar feelings of insecurity. One graduate student stated:

> I think [the course] helps out first off with reaching out and being able to ask questions and just admitting that you're wrong and then also opens up this concept of you're not the only one who doesn't know what you're doing and that's how you start off making friends ... that's how you lower those …. insecurities. (Gabriella, Interview)

Overall, having a community of learners, including faculty and peers, with whom they could develop relationships aided the graduate students in identifying their insecurities while providing a sense of belonging among those in the introductory course. As Gabriella stated, by the end of the course, "I was definitely less insecure than I was in the beginning" (Reflection). Student identity as doctoral students transitioned over the course of the semester from one of self-doubt, to realizing everyone had similar struggles in the rigorous journey toward a Ph.D. As Participant 10 stated "I began the semester with some trepidation and misgivings but am now confident that I am in the right place, and that I know how to finish this degree. Thanks again for the guidance and the wonderful journey" (Reflection). The introductory course provided first-year doctoral students access to support in an effort to ease concerns and validate their place in the program.

Suggestions for Course Improvements

Though the introductory course was perceived to be a valuable tool for community building and knowledge base, all respondents indicated that while they gleaned valuable knowledge, there were gaps in areas that could improve the course. In fact, being in the course brought about new topics and questions among the students as they became more aware of programmatic expectations. Several areas of improvement to the introductory course included topics of discussion that, in retrospect for participants, would have enhanced the overall quality of the course. Some areas of improvement included: participating in purposeful academic writing related to their specific areas; extending the introductory course to a full year due to lack of time to address everything in one semester; and discussing issues of culture and diversity. One specific skill students would have liked embedded was seeing models and/or participating in grant writing. Darren noted that "for someone who is wanting to go into higher ed, I know that is going to be my bread and butter so to speak, so I feel like I need to have a better grasp of what's going on or what's required of that" (Interview). Other improvements included clarity on the purpose of assignments, adherence to the syllabus, timely feedback, and establishing a transparent sense of structure and direction for the course.

Most of the participants felt extending the course for an additional semester would provide continuity and value in what they learned the first semester. Janice noted that she would like to "use all assignments across both semesters in a final literature review of some sort that would then help us to understand that process a little bit more" (Interview). Knowing that other critical skills, like grant writing, conducting extensive literature reviews, and the IRB process must be learned prompted many to feel the need for this extension. Ideas such as monthly seminars on focused topics were offered as suggestions. Some felt extending the cohort for the additional time would continue to build their academic repertoire, but also realized that programmatic requirements limit that option.

Discussion

The study provided insight into the perceptions of Ph.D. students with regard to an introductory course in curriculum and instruction and how it serves to acclimate doctoral students. Students found value in the course for reasons other than just academic, but also social, in that peers proved valuable sources of support. Participants acknowledged how the course provided opportunities to engage with varied members of the academy, from peers to faculty members, which alleviated stressors as they navigated the program and their research goals. These findings support the need for introductory courses at the doctoral level like the one in this study. Research has shown that lack of supports and emotional distress among doctoral students can cause feelings of being "stuck" that may lead to lessened self-confidence for both completers and non-completers (Devos, 2017, p. 72) indicating the need for early support structures to be in place.

The course also provided opportunities for members of the cohort to develop their new identity as future scholars in their field. Doctoral students wrestling with imposter syndrome became more comfortable over the course in this identity within a new community. Participants' identities were enhanced by interactions with the advisors, peers and other members of the program, who were instrumental in providing insight into the institutional culture and processes that are vital for doctoral student adjustments to the new environment. The initial year of a doctoral program guided this cohort of doctoral students in the development of their identity as academics, as well as served to "internalize the epistemic frames of the community" (Shaffer, 2009). In essence, the findings at the end of the semester revealed that students became more secure in their position and the development of their new identity as members of the academy, though it was still in the developmental stages. While this identity development is dynamically emerging, the results yielded findings consistent with the socialization that occurs in the inner university circle of Weidman et al.'s (2001) Graduate Socialization Framework, as well as contribution to developing the epistemic frames needed in the academy (Schafer, 2009) as intended by the course professor. Academic communities have a specific epistemological underpinning that guide the skills, knowledge and dispositions to be successful within that community, calling on the need to provide purposeful support at the doctoral level.

Community building was a vital component to doctoral students' transition, consistent with previous research in other types of doctoral orientation courses (Byrd, 2016; Garcia & Cao, 2019). The increase in community is instrumental in doctoral success as rarely do doctoral students in their first-year have class together (Lovitts, 2001), yet students in this cohort clearly benefited from the community developed in this course. Participants recognized the value of

establishing community in the program through the cohort, which had added benefits in managing imposter syndrome. Additionally, participants built their skill sets toward becoming scholars in their field through collaboration, even across areas of emphasis, which is consistent with Brown's (2019) findings. While students expressed some gaps in the course, there was an overall appreciation for the course in providing a solid foundation and learning to work with those from other areas of emphasis. In fact, several students indicated a desire for a second semester continuation to continue to build on the community establishment, as the cohort was a source of security. Collaboration with peers and with other faculty provided awareness of other skills and experiences needed during the doctoral program, like grant writing, potentially illuminating the importance of reaching out to members of the community for support in these identified areas. Such socialization efforts, like the one provided in this course, are vital for providing a solid foundation for success in a doctoral program.

This study contributes to the larger body of research that shows the benefits of an introductory course for doctoral students and supports the need for graduate student acquisition of knowledge through learning the academic culture and through proper socialization by the university (Weidman et al., 2001). Few studies have been found on orientation courses for doctoral students; however, through this particular study we have attempted to highlight the impact of a full semester face-to-face course and offer insights into how one introductory doctoral course can contribute to the acclimation of students to their specific environments and provide necessary training in academic skills needed for the profession. Additionally, the findings point to the value of such a course in providing a solid foundation into academia, which should encourage other academic departments and colleges to consider the distinct needs of their doctoral students in their programs, domestic and international, as well as individual support within the departmental context.

Limitations and Future Studies

While this study provided valuable insights and gave voice to the participants in this introductory course, the scope of this single case qualitative analysis cannot be generalizable to other graduate programs, and it is limited by the voices that were chosen to represent the cohort. Additional cases will need to include participants from different cohorts at the same university and participants in different universities that run similar introductory courses so the researchers can begin to elicit patterns across different contexts. Future studies should consider the inclusion of a focus group to culminate the inquiry to provide an additional layer of insights.

Lessons were also learned in what specific assignments were most valuable to students, which is potentially useful information in designing future courses and restructuring current introductory courses to organically address arising student needs. Universities desiring to build such a course should consider their unique context and student needs when creating course assignments. No cohort will enter with the same needs, and the course professor must be cognizant of the specialized needs of each cohort. This revelation highlights the need for a fluid design, as this course professor adopted, to meet the fluctuating needs of different cohorts.

Since introductory programs have the potential in retaining quality candidates at the undergraduate level, more research is needed in understanding the unique challenges that

graduate students in the College of Education face in a Ph.D. program (Lovitts, 2008; Rapp & Golde, 2009), and what role an introductory course could provide to support doctoral students in their pursuits currently and in the long term. As stated in the introduction, the authors only found 27% of the Tier 1 research universities offering some type of introductory course or seminar. An exploratory comparison among universities with and without such programs may shed insight into the varied types of programs, their effectiveness, and why a university may nor may not require one. Casting a broader scope regarding effective introductory courses may assist in identifying specific course design features that may universally address issues such as socialization to the academy and addressing imposter syndrome.

Additional research could include a longitudinal study of the current cohort, as well as future cohorts in the program. Findings could provide valuable data on the impact of introductory doctoral programs, such as retention and support for mental health during the rigorous demands of a doctoral program. More research is needed on such topics across universities that provide introductory courses, because of known attrition rates of doctoral students and little work conducted regarding introductory programs for Ph.D. students. Improving attrition of doctoral students by supporting them early toward degree completion benefits both the university and the doctoral student, and implementation of an introductory doctoral course may serve to address this issue.

Author Notes

Karen E. McIntush is a Ph.D. candidate in the department of Teaching Learning and Culture at Texas A&M University. She has 15 years of experience working in higher education, focusing on teacher preparation, with research interests specific to culturally responsive classroom management.

Nazneen Hyder Askari is a fourth-year doctoral student in the department of Teaching Learning and Culture at Texas A&M University. As an owner and administrator of her own preschools, she is passionate about early childhood education and is focusing her dissertation in Curriculum and Instruction on creating early childhood programs that meet children's physical, cognitive, social and emotional needs.

Karla A. Garza
Karla Adelina Garza is a Ph.D. student in the department of Teaching, Learning & Culture at Texas A&M University. She has eleven years teaching Spanish in secondary public schools and her research interests include multicultural and Latinx education, technology use in education, and teacher preparation.

Michele Norton is a post-doctoral researcher at Texas A&M University. Her research interests include design and creativity, team environments, coaching and mentoring, STRM and well-being.

Peter Scaramuzzo is a Ph.D. candidate in Curriculum and Instruction in the Department of Teaching, Learning and Culture at Texas A&M University. Peter has 10+ years teaching experience in PK-12 and is approaching 10 years of experience in higher education. His overlapping research interests include LGBTQ+/multicultural education, curriculum studies, and teacher education with specific emphasis in queer studies, women and gender studies, qualitative and mixed method research methodologies, and ecological/environmental education.

Lynn M. Burlbaw, Professor Emeritus at Texas A&M University, chaired and mentored over 75 doctoral students during his 32-year tenure. His research interests are history of education and social studies education.

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Correspondence concerning this article should be addressed to Karen McIntush at **kgm91@tamu.edu**

References

Alexander, J., & Maher, M. (2008). Transitional needs of master's students. In K. Tokuno (Ed.), *Graduate students in transition: Assisting students through the first year,* (pp. 47-55). National Resource Center for the First-Year Experience and Students in Transition.

Andrade, M. S. (2008). International graduate students: Adjusting to study in the United States. In K. Tokuno (Ed.), *Graduate students in transition: Assisting students through the first year.* (K.Tokuno, Ed.). University of South Carolina National Resource Center for the First-Year Experience and Students in Transition.

Arskey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology, 8*(1), 19-32.

Barnett, B. G., Basom, M. R., Yerkes, D. M., & Norris, C. J. (2000). Cohorts in educational leadership programs: Benefits, difficulties, and the potential for developing school leaders. *Educational Administration Quarterly, 36*(2), 255–282. https://doi.org/10.1177/0013161X00362005

Baum, S., & Steele, P. (2017). Who goes to graduate school and who succeeds? https://www.urban.org/sites/default/files/publication/86981/who_goes_to_graduate_school_and_who_succeeds_1.pdf

Benavides, A., & Keyes, L. (2016). New-student introductory: Supporting success and socialization in graduate programs. *Journal of Public Affairs Education, 22*(1), 107-124.

Brown, K. (2019). Cultivating a 'collegial turn' in doctoral education. *Teaching in Higher Education*. doi:10.1080/13562517.2019.1680538

Byrd, J. C. (2016). Understanding the online doctoral learning experience: Factors that contribute to students' sense of community. *Journal of Educators Online*, *13*(2), 102–135.

Cassuto, L. (2013). Ph.D. attrition: How much is too much? *Chronicle of Higher Education*, *59*, 41.

Castelló, M., Pardo, M., Sala-Bubaré, A., & Suñe-Soler, N. (2017). Why do students consider dropping out of doctoral degrees? Institutional and personal factors. *Higher Education*, *74*(6), 1053–1068. https://doi-org.10.1007/s10734-016-0106-9

Clance, P.R., & Imes, S.A. (1978). The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research & Practice. 15*, 241-247.

Cowie, M. E., Nealis, L. J., Sherry, S. B., Hewitt, P. L., & Flett, G. F. (2018). Perfectionism and academic difficulties in graduate students: Testing incremental prediction and gender moderation. *Personality and Individual Differences*, *123*, 223-228. doi:10.1016/j.paid.2017.11.027

Devos, C., Boudrenghien, G., Van der Linden, N., Azzi, A., Frenay, M., Galand, B., & Klein, O. (2017). Doctoral students' experiences leading to completion or attrition: A matter of sense, progress and distress. *European Journal of Psychology and Education, 32*, 61–77 (2017). https://doi-org.10.1007/s10212-016-0290-0

Dunn, S. (2014). In Hindsight: Former Ph.D. students reflect on why they jumped ship. *ChronicleVita*, https://chroniclevitae.com/news/445-in-hindsight-former-ph-d-students-reflec

Evans, C., & Couts, P. (2011). Graduate candidates' perceptions of cohort groups in educational leadership programs. *National Social Science Journal*, *35*(2), 55–65.

Evans, T.M., Bira, L., Gastelum, J.B., Weiss, L.T., & Vanderford, N.L. (2018). Evidence for a mental health crisis in graduate education. *Nature Biotechnology, 36(3),* 282-284.

Fernandez, M., Sturts, J., Duffy, L. N., Larson, L. R., Gray, J. & Powell, G. M. (2019). Surviving and thriving in graduate school. SCHOLE: *A Journal of Leisure Studies and Recreation Education, 34*(1), 3-15, doi:10.1080/1937156X.2019.1589791

Garcia, C., & Yao, C. (2019). The role of an online first-year seminar in higher education doctoral students' scholarly development. *The Internet and Higher Education*, (42), 44-52. https://doi.org/10.1016/j.iheduc.2019.04.002

Gardner, S.K., Jansujwicz, J.S., Hutchins, K., Cline, B., & Levesque, V. (2014). Socialization to interdisciplinarity: Faculty and student perspectives. *Higher Education*, *67*(3), 255.

Gittings, G., Bergman, M., Shuck, B., & Rose, K. (2018). The impact of student attributes and program characteristics on doctoral degree completion. *New Horizons in Adult Education & Human Resource Development, 30*(3), 3-22. https://doi.org/10.1002/nha3.20220

Glaser, B. G. & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* New York: Aldine Publishing Company.

Jamelske, E. (2009). Measuring the impact of a university first-year experience program on student GPA and retention. *Higher Education*, *57*(3), 373.

Laufer, M. (2019). The invisible others: Stories of international doctoral student dropout. *Higher Education: The International Journal of Higher Education Research*, *78*(1), 165–181.

Lovitts, B. E. (2001). *Leaving the ivory tower: The causes and consequences of departure from doctoral study.* Rowman & Littlefield Publishers.

Lovitts, B. E. (2008) The Transition to independent research: Who makes it, who doesn't, and why. *The Journal of Higher Education, (79)*3, 296-325, doi:10.1080/00221546.2008.11772100

Martinez, E., Ordu, C., Della Sala, M. R., & McFarlane, A. (2013). Striving to obtain a school-work-life balance: The full-time doctoral student. *International Journal of Doctoral Studies*, *8*, 39–59. https://doi.org/10.28945/1765

McAlpine, L., & McKinnon, M. (2013). Supervision—the most variable of variables: Student perspectives. *Studies in Continuing Education, 35*(3), 265–280.

McAlpine, L., & Norton, J. (2006). Reframing our approach to doctoral programs: An integrative framework for action and research. *Higher Education Research & Development*, *25*(1), 3-17.

McGregor, L. N., Gee, D. E., & Posey, K. E. (2008). I feel like a fraud and it depresses me: The relation between the imposter phenomenon and depression. *Social Behavior and Personality, 1*, 43.

Merton, R.K., Reader, G.G., & Kendall, P.L. (Eds). (1957). *The student physician; Introductory in the sociology of medical education.* Cambridge, MA: Harvard University Press.

Mears, D. P., Scaggs, S. J. A., Ladny, R. T., Lindsey, A. M., & Ranson, J. W. A. (2015). Successful transitions to graduate school: Using orientations to improve student experiences in criminology and criminal justice programs. *Journal of Criminal Justice Education*, *26*(3), 283–306. https://doi-10.1080/10511253.2015.1018914

OECD (2020), Tertiary graduation rates. *OECD Education Statistics*, https://data.oecd.org/students/tertiary-graduation-rate.htm#indicator-chart

Pappano, L. (2011, July 24). The master's as the new bachelor's, *New York Times*. http://www.nytimes.com/2011/07/24/education/edlife/edl-24masters-t.html

Patton, Michael Quinn (1990). *Qualitative evaluation and research methods*. (2nd ed.). Sage Publications.

Pishva, R. (2010, Summer). "Phew, I fooled 'em this time…but I may not be so lucky next time": The imposter syndrome among graduate students. *Psynopsis: Canada's Psychology Newspaper*, 35.

Rapp, K. & Golde, C.M. (2008). Transitions in context: An overview of U.S. graduate education. In K. Tokuno (Ed.), *Graduate students in transition: Assisting students through the first year* (pp. 3-17). National Resource Center for the First-Year Experience and Students in Transition.

Riessman, C.K. (2008). *Narrative methods for the human sciences.* Sage Publications, Inc.

Seidman, I. E. (1991). *Interviewing as qualitative research: A guide for researchers in education and the social sciences.* Teachers College Press.

Shaffer, D. (2009). Epistemic network analysis: A prototype for the 21st Century assessment and learning. *International Journal of Learning and Media, 1*(2), 33-53. doi:10.1162/ijlm.2009.0013

Shanley, M. G., & Witten, C. H. (1990). University 101 freshman seminar course. *NASPA Journal, 27(*4), 344-352, doi:10.1080/00220973.1990.11072178

Smallwood, S. (2004). Doctor dropout: High attrition from Ph.D. programs is sucking away time, talent, and money, and breaking some hearts, too. *Chronicle of Higher Education, 50*(19), 10-12.

Smith, R. L., Maroney, K., Nelson, K. W., Abel, A. L., & Abel, H. S. (2006). Doctoral programs: Changing high rates of attrition. *The Journal of Humanistic Counseling, Education and Development*, *45*(1), 17-31.

Strauss, A., & Corbin, J. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory (4th ed.)* Sage Publications, Inc.

Thakral, C., Vasquez, P. L., Bottoms, B. L., Matthews, A. K., Hudson, K. M., & Whitley, S. K. (2016). Understanding difference through dialogue: A first-year experience for college students. *Journal of Diversity in Higher Education*, *9*(2), 130–142. doi:10.1037/a0039935

Tokuno, K. (2008). *Graduate students in transition: Assisting students through the first year.* (K.Tokuno, Ed.). University of South Carolina National Resource Center for the First-Year Experience and Students in Transition.

Waight, E., & Giordano, A. (2018). Doctoral students' access to non-academic support for mental health. *Journal of Higher Education Policy & Management*, *40*(4), 390–412. https://doi.org/10.1080/1360080X.2018.1478613

Weidman, J, C., & Stein, E. L. (2003). Socialization of doctoral students to academic norms. *Research in Higher Education, 44*(6), 641. https://doi:10.1023/A:1026123508335

Weidman, J, C., Twale, D. J., Stein, E. L., & Leahy, E. (2001). Socialization of graduate and professional students in higher education: A perilous passage? *ASHE-ERIC Higher Education Report*, *28*(3), 1–112.

What Works Clearinghouse (WWC) (2016). *First Year Experience Courses. What Works Clearinghouse Intervention Report*. What Works Clearinghouse.

Wollast, R., Boudrenghien, G., Van der Linden, N., Galand, B., Roland, N., Devos, C., De Clercq, M., Klein, O., Azzi, A., & Frenay, M. (2018). Who are the doctoral students who drop out? Factors associated with the rate of doctoral degree completion in universities. *International Journal of Higher Education*, *7*(4), 143–156.

Young, V. (2017, October 6). The imposter syndrome speaker video. [Video] https://impostorsyndrome.com/

Appendix A
Pre-Course Questions for Introductory Course Survey

You have agreed to participate in a study titled, ***Impact of a newly enrolled induction program on 1st-year education doctoral education students' learning experiences and self-perceptions related to efficacy in the Department at this University*.** Participation in this study includes completing the following survey with the option of a follow-up interview. As a reminder, all information will be kept confidential. Only the research team will have access to the information you enter in this form.

Pre-Test

First/Last Name:
Email address:

Academic Demographics:
How many years has it been since you finished your Master's degree?

- ❑ Less than 1 year
- ❑ 1-3 years
- ❑ 5-8 years
- ❑ 9 or more years

Have you presented at a conference before? Yes No
Have you published a scholarly article in a journal? Yes No
Which focus area are you interested in the department?

- ❑ Science Education
- ❑ Urban Education
- ❑ Multicultural
- ❑ Literacy
- ❑ Other (please specify): _______________

What is your ultimate career goal?

- ❑ Academia
- ❑ Research
- ❑ K-12 Education
- ❑ Consulting
- ❑ Other (please specify)

Career Demographics:
Please complete the information below for every type of school in which you have worked. If you have not worked in a particular type of school listed, please leave it blank.

How many years have you taught or worked in each of the different types of schools?

Type of School	**0-2 years**	**3-5 years**	**6-10 years**	**More than 10 Years**
Private School	❍	❍	❍	❍

Public School	❍	❍	❍	❍
Charter School	❍	❍	❍	❍
Parochial School	❍	❍	❍	❍
Montessori School	❍	❍	❍	❍
Higher Education	❍	❍	❍	❍
Other teaching Experiences	❍	❍	❍	❍

What grade levels did you work with at each of these school types? Select all that apply.

Type of School	Preschool EC - Pre-K	Elementary K-6	Secondary (7-12)	Undergraduates	Adult Education
Private School	❍	❍	❍	❍	❍
Public School	❍	❍	❍	❍	❍
Charter School	❍	❍	❍	❍	❍
Parochial School	❍	❍	❍	❍	❍
Montessori School	❍	❍	❍	❍	❍
Higher Education	❍	❍	❍	❍	❍
Other teaching Experiences-	❍	❍	❍	❍	❍

What was the approximate student population of the school in which you worked?

Type of School	Less than 200 Students	200-499 students	500-1000 students	Over 10,000 students
Private School	❍	❍	❍	❍

Public School	❍	❍	❍	❍
Charter School	❍	❍	❍	❍
Parochial School	❍	❍	❍	❍
Montessori School	❍	❍	❍	❍
Higher Education	❍	❍	❍	❍
Other teaching Experiences-	❍	❍	❍	❍

Please describe the location of the school where you worked.

Type of School	Country	State	City	School District Name
Private School	❍	❍	❍	❍
Public School	❍	❍	❍	❍
Charter School	❍	❍	❍	❍
Parochial School	❍	❍	❍	❍
Montessori School	❍	❍	❍	❍
Higher Education	❍	❍	❍	❍
Other teaching Experiences-	❍	❍	❍	❍

Where did you obtain your certification(s)?

- ❑ Traditional 4-year Educator Preparation Program
- ❑ Alternative Certification
- ❑ Other - please specify: ____________________

What is/are your certification area(s)? (Select the option that most closely matches your certification.)

- ❑ Early Childhood
- ❑ Elementary (K-5)
- ❑ Middle levels ((4-8)

- ❑ Secondary (7-12)
- ❑ Special Education
- ❑ Bilingual
- ❑ Counseling
- ❑ Administration
- ❑ Other: _________

How many years of teaching experience do you have as of May 2019?

- ❑ Less than 1 year
- ❑ 1-3 years
- ❑ 4-5 years
- ❑ 6-10 years
- ❑ 11-15 years
- ❑ More than 15 years

If you left the classroom as a teacher, did you continue your career in education (e.g. as an administrator, counselor, or working in higher education)?
Yes No

Survey:
Please complete the following questions based on how you currently perceive each statement below with 1 as strongly disagree and 4 as strongly agree.
Strongly agree
Agree
Disagree
Strongly disagree

Please rate your agreement with each statement
I complete tasks in a timely fashion.
I am familiar with APA expectations.
I know what professional conferences are important for my field.
I will feel like a professor when I get my Ph. D.
I have a curriculum vitae.
My curriculum vitae is organized in a way that is suitable to my ultimate Ph. D. plan
I know what professional scholarly journals are important for my field.
I know how to submit a manuscript to a journal.
I know how to choose an appropriate journal to submit for my manuscript.
I am familiar with the general structure of a research article.
I know how to conduct scholarly research.
I am culturally competent.
I am technologically literate.
I am physically fit.
I am mentally prepared for this program.
I have a faculty mentor or advisor in the department.
I feel my faculty mentor or advisor is not the right fit for me.
I am able to cope with great stress.

I know who my temporary advisor is in the department.
I have open communication with my temporary advisor.
I have regular communication with my temporary advisor.
I feel comfortable asking questions about doctoral program expectations.
My advisor is helpful to me.
I feel my advisor is available for guidance.
I know who my student mentor is in the department.
I have regular communication with my student mentor.
Financing my doctorate is a concern for me.
I feel my faculty mentor or advisor is a good fit for me.
I am distracted by TAMU external issues, such as parking, finance or costs, housing, or healthcare.
Most times I generally feel more like a professional than a student.
My curriculum vitae is competitive.
The peers in this program provide support for me in navigating this program.
I know where to find grant funding for my research.
I know which staff to speak to about different issues and topics.
I have an idea of the research I want to pursue.
My research is unique.
I look for ways to apply my research to community improvement or university service projects.
I am an effective researcher.
Academia is disconnected from K-12 educational contexts.
I take constructive critical feedback well.
I have learned how to balance a personal life and an academic career.
I feel comfortable preparing for a faculty job interview.
I am confident in giving presentations.
THE DEPARTMENT makes my graduate school experience more comfortable.
I am comfortable working collaboratively.
I understand authorship protocols.
I have thought about dropping out of the program.
My doctoral program makes me feel motivated.
I plan to work in academia when I complete my Ph. D.
I set achievable and realistic goals.
I achieve the goals I set for myself.
I am able to balance multiple tasks at a time.
I understand issues in higher education related to my doctoral program.
I am confident this program will help me achieve my career goals.

Please provide a short summary response for each of the questions below.
(open ended)
Describe the educational journey you have taken to arrive in this program.
Why did you decide to pursue a doctorate?
Why did you choose the department for your Doctoral program?
Describe your knowledge of your department's doctoral program degree plan.
What do you hope to get out of this program?
What are your perceptions of the dissertation and the dissertation process?

Personal Demographics:

Age Range: 22-25 26-29 30-35 36-40 41-45 46-50 51+

Where are you from ________________________

Are you enrolled as an international student?

- ❑ Yes
- ❑ No

Current Nationality: ______________
Country of Origin: __________

Racial Identity (These terms are used in the U.S. Census.)

❑ White, non-Hispanic
❑ Black or African American
❑ Hispanic or Latin
❑ Asian
❑ Not Listed or adequately represented: Please specify: ____________

What language(s) do you speak? Select all that apply

- ❑ English
- ❑ Spanish
- ❑ Mandarin Chinese
- ❑ Vietnamese
- ❑ Arabic
- ❑ Russian
- ❑ German
- ❑ French
- ❑ Latin
- ❑ American Sign Language
- ❑ Other (please specify) ______________________

Marital Status:

- ❑ Single
- ❑ Married
- ❑ Other - please specify

Do you have children: Yes No
If so, what ages:

What are your parents' highest education levels?
Mother

- ❑ High School Only

❏ Some college
❏ Associates Degree or Technical Degree
❏ Bachelor's Degree
❏ Master's Degree
❏ Ph.D. or other terminal/professional degree

Father

❏ High School Only
❏ Some college
❏ Associates Degree or Technical Degree
❏ Bachelor's Degree
❏ Master's Degree
❏ Ph.D. or other terminal/professional degree

Sex (please choose the option with which you are most comfortable and in consideration of self-identification and assigned sex at birth)

❍ Female
❍ Male
❍ Intersex
❍ Transgender
❍ Prefer not say
❍ Not Listed: Please specify

Gender*:

**Cisgender denotes or relates to a person whose sense of personal gender identity corresponds with their assigned birth sex.*

❍ Cisgender Female
❍ Cisgender Male
❍ Trans
❍ Transgender
❍ Genderqueer
❍ Queer
❍ Gender Creative, Gender Fluid, Gender Non-Conforming
❍ Non-Binary
❍ Prefer not say
❍ Not Listed: Please specify

Pronouns:

❍ She, her, hers
❍ He, him, his
❍ Ze/Xe, hir, hirs
❍ They, them, theirs
❍ Not Listed: Please specify

Sexual Orientation: ________________________

Religious Affiliation:
❍ Christianity
❍ Judaism
❍ Islam
❍ Buddhism
❍ Hinduism
❍ Not Listed
❍ Atheist
❍ None

Thank you for taking your time to complete this information.

IRB NUMBER: IRB2018-0844D
IRB APPROVAL DATE: 09/11/2018

Appendix B

Semi-Structured Student Interview Protocol

Interviewer: Introduce interviewers to the participant.

Interviewer: During this interview, you will be asked to tell us about your experience in the introductory course and your first year as a doctoral Student. We are interested in your perceptions of your experience, as well as the impact of the introductory course. There are no right or wrong answers, and your professor will not have access to the interviews during this semester, so please be as honest as you can be in helping us understand the impact of the introductory course. Remember that the information is confidential and will be used only for research about the experience of first-year doctoral students in this program. We will be recording this session, so that we can include the data in our study. Do you have any questions? Do you agree to continue with this interview?

Questions:

- Tell us a little about yourself and how you ended up in the program at this university.
- Talk about some of the highs and lows of your PhD journey so far.
- Describe the extent to which you have developed a community here in the program.
- Describe a key learning experience from the introductory course that has impacted you.
- Describe an interaction with a faculty member that has impacted your experience this first year. It can be a positive or negative experience.
- If you were to have a conversation with someone new to this same program, what words of wisdom would you give them?
- What other thoughts would you like to add that would help us better understand your experience?

Appendix C

Professor Interview

Semi-structured Questions with Course Professor:

1. Describe the purpose of the introductory course at this university as you see it?
2. As I understand it, the introductory course was redesigned several years back. Did the redesign address specific shortcomings or problems?
3. In your opinion, what do you think have been the most meaningful effects of the introductory course for the college/department and for students?
4. <read definitions of mentoring and coaching from Hopkins-Thompson, 2000>
Operating under those definitions, can you think of aspects of your introductory course that you think of as being mentoring-related?
5. What do you think is the most important aspect of your introductory course?
6. Do you recall any specific feedback from 601 students regarding what they thought was the most impactful for them?
7. Since the redesign, how has the introductory course been adapted to meet the changing needs for students?
8. Why do you think such a course is so rare?