

“I’m drowning”: The Invisible Labor of Doctoral Supervisors in the United States

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Abstract: *While researchers have examined doctoral supervision tasks, no evidence describes the estimated labor expended for these tasks. This embedded case study examines the labor of experienced supervisors at one institution in the southern United States (U.S.) across three phases – when a supervisor is assigned, when students are in the final semester of courses, and when students write the dissertation. Results suggest doctoral supervision requires up to 20% of a traditional 40-hour work week exclusive of other service activities. Time trade-offs included decreased mentoring, student publications, and/or personal time. Findings are analyzed through the lens of Halse and Malfroy’s (2010) developmental doctoral supervision framework to identify which tasks require the most labor. Organizational strategies to reduce doctoral supervision labor are discussed.*

Keywords: doctoral supervision, dissertation, faculty, workload, labor

Introduction

While colleges may provide a variety of resources to support doctoral students (Burrington et al., 2020), researchers consistently identify the student / supervisor relationship as the key factor in degree completion (Aspland et al., 1999; Barnes & Austin, 2009; Golde, 2005; Halse & Malfroy, 2010; Roach et al., 2019; Sambrook, 2016; West et al., 2011). However, growing demands on faculty can limit the amount of time they

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have to guide doctoral students (Johnson, 2014; McCallin & Nayer, 2012; Milem et al., 2000). As institutional pressure to do more with fewer resources contributes to the expansion of faculty workload (Anderson & Slade, 2016; Blessinger & Stockley, 2016; Boyd, 2014), it is important to examine the labor demands of doctoral supervision and how faculty are managing this important role.

Researchers estimate a quarter to half of all doctoral students do not complete their degree (Smith et al., 2006). For students who do not persist, almost half say the supervisor relationship is the primary reason for their departure (Barnes et al., 2010). When supervisors share expectations at the beginning of the relationship, communicate frequently, and provide ongoing encouragement and support, students experience increased self-efficacy and persist through challenges (Burkard et al., 2014; Burrington et al., 2020). When students have a supervisor relationship with limited interaction, lack of trust, and little intellectual support (Barnes et al., 2010; Burkard et al., 2014; Golde, 2005), they are more likely to end their studies (Hadjioannou et al., 2007).

While the literature emphasizes what supervisors should do to support students (Barnes & Austin, 2009; Burrington et al., 2020; Knox et al., 2011; Roach et al., 2019; Sambrook, 2016), it is limited regarding the actual labor demands required for these duties (Anderson et al., 2019; Bøgelund, 2015; Lee & McKenzie, 2011). In addition, doctoral supervision research often addresses country contexts outside of the United States (U.S.; González-Ocampo & Badia, 2019; Kumar & Stracke, 2007; Lee & Murray, 2015; Lessing, 2011; Nurie, 2018; Wisker & Robinson, 2016) although the U.S. awards a majority of doctoral degrees (Parker-Jenkins, 2018). While some similarities exist between countries, there are other subtle differences such as how much a supervisor is expected to do for a student (Lessing, 2011) or systems of accountability that may influence supervisor workload (Lee & Murray, 2015). This case study research addresses the literature gap by documenting the labor of experienced doctoral supervisors within the southern U.S.

Literature Review

Researchers share a long list of roles and responsibilities for doctoral supervision. For instance, Barnes and Austin (2009) explain that a supervisor should be a mentor, advocate, disciplinarian, and collaborator. Knox et al. (2011) describe the roles as cheerleader, counselor, coach, and critic. And Lechuga (2011) adds ally, master-apprentice, and ambassador to the list. Specific responsibilities can include assessing student needs (Barnes & Austin, 2009); building rapport (Roach et al., 2019; Sambrook, 2016); being accessible and communicating well (Aspland et al., 1999; Weidman & Stein, 2003); guiding research, writing, and critical analysis (Barnes & Austin, 2009; Halse & Malfroy, 2010; Sambrook, 2016; Weidman & Stein, 2003); managing students' emotional needs (Barnes & Austin, 2009; Sambrook, 2016; West et al., 2011); sharing technical knowledge (Halse & Malfroy, 2010); managing institutional processes (Halse & Malfroy, 2010); and advising students on academic, career, and professional needs (Barnes & Austin, 2009; Sambrook, 2016). Weidman and Stein (2003) add that supervisors should actively engage in personal research to continue building expertise.

The most important responsibility of a doctoral supervisor is to guide dissertation development, which changes over time (Bøgelund, 2015; Burrington et al., 2020; González-Ocampo & Castelló, 2019; Lee & Murray, 2015). Novice researchers, for instance, may need support for research plans and writing (Knox et al., 2006; Knox et al., 2011; Maher et al., 2014) while more advanced students may need guidance for conceptual and critical engagement (Kumar & Stracke, 2007). Given this long list of changing responsibilities, it is not surprising doctoral supervision is considered “an intensive teaching experience” (Parker-Jenkins, 2018, p. 5).

To better serve all needs, Halse and Malfroy (2010) propose a developmental doctoral supervision framework to increase student capacity. Supervisors begin with the learning alliance, which promotes clear communication, expectations, goals, and an understanding of the student / supervisor relationship as a partnership. After establishing this mindset, the second concept, habits of mind, prompts supervisors to provide critical feedback, direction, and encouragement. The third concept, scholarly expertise, focuses on a supervisor's personal expertise in the subject matter and how it is shared with a student. The fourth

concept, techné, highlights the scholarly competencies developed by the supervisor over time such as writing, analyzing data, and searching databases. Finally, supervisors provide contextual expertise such as institutional policies, procedures, and culture that influence degree completion. Halse and Malfroy (2010) assert that following these five concepts of supervision will increase student persistence.

Halse and Malfroy (2010) also explained that this approach requires more time. However, faculty time may be in short supply (Boyd, 2014; Milem et al., 2000). For instance, Ziker (2014) found that faculty worked 61 hours per week on average, with 40% of their time spent on teaching, 46% on research, and 14% on service and administrative tasks. Other studies shared total workload estimates of more than 50 hours per week (Kenny & Fluck, 2017; Link et al., 2008). With multiple researchers identifying faculty regularly working at least 10 to 20 hours more than a traditional work week, it is not surprising that time limitations lead to trade-offs such as decreased student support or personal wellness (Boyd, 2014; Milem et al., 2000).

While researchers have documented overall faculty workload and the tasks required of doctoral supervisors, the literature appears silent regarding the labor expended through the performance of doctoral supervision tasks. Furthermore, faculty workload is often examined through a quantitative lens which removes nuanced cultural influences. Fairweather and Beach (2002) note that department culture can influence faculty workload, causing faculty to emphasise some practices over others. In order to understand the influences of culture, this study follows the recommendation of Golde (2005) by examining supervision at the department level.

Specifically, this study is guided by the research question “How do experienced doctoral supervisors at a U.S. institution describe the labor they expend at three different stages of dissertation development?” The three stages represent important milestones in the doctoral supervision process – when a dissertation relationship begins, when students reach the conclusion of coursework, and when students begin writing the dissertation. Findings are examined alongside Halse and Malfroy’s (2010) framework of developmental doctoral supervision to better identify which tasks require the most labor.

Method

This exploratory case study research uses a single case, embedded design to allow in-depth examination of multiple perspectives within one common environment (Yin, 2018). The selected case considers one department context and nine faculty perspectives on doctoral supervision. The context, participant selection, data collection, analysis procedures, and limitations are all detailed in this section.

Context

U.S. Doctoral Education. The U.S. awards more doctoral degrees than any other country (Nerad, 2007), including professional doctorates which focus on the application of research to a specific field. The doctoral degree comprises several years of academic courses, an exam to demonstrate mastery of field knowledge, a research proposal and public defense, and a completed research study and public defense. Each student works closely with one faculty member (called a supervisor, advisor, or chair) to guide them through the entire process and has a dissertation committee comprising two or more additional faculty. The U.S. doctoral process has been criticized for its long completion times and high attrition (Nerad, 2007). In addition, there is no national process for doctoral data, so researchers provide much of what is known about doctoral education in the U.S.

Department context. The department selected for this research is located within a college of education at a four-year, regional institution in the southern U.S. The institution's faculty workload policy requires faculty to spend 40% of their time on teaching, 40% on research and 20% on service. Service obligations encompass a variety of tasks which are included in annual faculty performance evaluations and considered for both merit pay and promotion opportunities. Service tasks include program activities such as admissions processes, new student orientation activities, qualifying exam reviews, and doctoral supervision and committee membership; administrative committee and task force responsibilities for the program, department, college, and university; and professional leadership such as serving on association boards and conference committee membership. Faculty have nine-month contracts, teach three courses in the fall and spring, publish at least two scholarly manuscripts per year, and present research at professional conferences.

Summer teaching contracts are optional, but the department culture emphasizes year-round doctoral supervision.

The department offers three professional doctorates in education (Ed.D.) for the areas of elementary and secondary school leadership, developmental education, and higher education leadership. Each program requires 60 credit hours of courses, and students participate in a qualifying exam before moving to the dissertation process. Annual enrollment in each program ranges from 8 to 15 students, and the programs follow a cohort model where students take courses together. Most students are full-time working professionals in their education fields. The department culture promotes active support of students throughout the doctoral process, with an emphasis on mentoring, course assignments, and periodic workshops to prepare students for dissertation and research activities.

The formal doctoral curriculum includes a proposal-writing course which occurs in the final semester of coursework and assists students in crafting the first three chapters of their dissertation. Following completion of coursework, students enroll in dissertation hours, complete a three-chapter proposal and public proposal defense, conduct research, write the remaining two chapters, and publicly defend their dissertations. Most students select dissertation topics based on personal interests rather than to assist faculty with their research agendas.

Department faculty serve on dissertation committees for all three programs, and students are assigned supervisors between six to twelve months before taking the proposal course. The assignment process includes obtaining students' preferences for faculty supervisors and reviewing department needs. Program directors then work together to create the best student-faculty matches possible given the competing interests. Faculty have supervision autonomy, but department expectations prioritize regular communication and support between doctoral supervisors and students.

Participants

A criterion sampling strategy identified experienced doctoral supervisors for potential inclusion in the study (Creswell & Poth, 2018). The three criteria included: (1) serving as a doctoral supervisor in the department,

(2) having full-time faculty status, and (3) graduating at least six doctoral students while serving as a supervisor at any higher education institution, which doubles existing criteria for supervision experience (Kiley, 2011) and ensures participants had time to develop preferences and practices (Halse, 2011; Sambrook, 2016).

Participant selection began with a list of all full-time doctoral faculty in the department followed by a review of publicly-available curriculum vitae to determine how many students they supervised to completion. Eleven faculty were identified, and all received email invitations for the study. Nine faculty agreed to participate, and their pseudonyms and faculty ranks are listed in Table 1. Additional participant characteristics are purposefully left out to ensure confidentiality. At the time of this study, participants had collectively supervised 41 doctoral students to completion at the institution and were actively supervising two to six doctoral students, which is similar to supervisor workloads identified by other researchers (Roumell & Bolliger, 2017).

Table 1

List of participants and their faculty rank

Participant	Faculty Rank
Amy	Full Professor
Chris	Full Professor
Daryl	Full Professor
Dave	Associate Professor
Jennifer	Full Professor
Karl	Associate Professor
Kevin	Full Professor
Kristen	Full Professor
Lori	Full Professor

Data Collection and Analysis

An interview protocol guided the research (Seidman, 2019) and addressed issues such as what makes the supervision process easier or more difficult, expectations shared with students regarding supervision, and what an average supervision week looks like for each of the three dissertation stages. Two experienced supervisors reviewed the protocol to ensure the questions matched the purpose of the study, generated authentic experiences, and followed established interviewing guidelines (Seidman, 2019). The institution's human subjects board approved the final research plan.

Interviews occurred via video conference on Zoom® (five participants) or in-person in a campus office (four participants). All interviews were audio recorded and lasted between 45 to 60 minutes. Audio files were transcribed through Rev®, and each transcript was reviewed for accuracy. Personal identifiers were disguised to protect confidentiality. Final transcripts were uploaded to Dedoose®, and three cycles of coding comprised the inductive analysis (Creswell & Poth, 2018). Each transcript was read twice to develop an overall sense of experiences, then significant statements were assigned descriptive codes (Saldaña, 2015). The descriptive codes were reviewed to determine initial categories for each transcript (Creswell & Poth, 2018). Finally, categories from each transcript were combined into final themes to answer the research question. A constant comparison process was used throughout the analysis to update interpretations (Creswell & Poth, 2018).

According to Merriam (2009), researchers should explain their connection to the study topic to provide additional context and acknowledge potential biases. At the time this project began, I was a novice doctoral supervisor. My interest in the topic of supervision came from inexperience as well as curiosity. I approached each interview as an opportunity to learn from more experienced colleagues as I considered my own emerging perspectives. To manage potential biases, I kept a reflexive journal throughout the project and employed additional trustworthiness strategies including triangulation with the scholarly literature, thick description, and peer collaboration during protocol development (Creswell & Poth, 2018).

Limitations

There are several limitations of this research. First, it focused on personal recollections rather than exact tracking. It is possible actual activities and time spent during supervision may differ from what participants recalled. Second, this study examines one department at one institution. While a detailed description of the context is shared, it is up to readers to determine if findings are transferrable to other contexts. Finally, this study focused on experienced supervisors, so findings should only be considered for a similar population.

Results

Findings are organized for the three stages identified in the research question. The Pre-Proposal Course section (PRE) addresses supervisor labor when students are matched with faculty but before they enroll in the proposal writing course. The Proposal Course section (PC) documents supervisor labor in the final semester of coursework when students take the proposal course. The Post-Proposal Course section, when students are considered “all-but-dissertation” (ABD), addresses supervisor labor when students move into full-time dissertation writing.

Pre-proposal course (PRE)

As depicted in Table 2, participants offered 55 comments regarding PRE students, with almost three-quarters focused on socializing students into the dissertation process.

All participants met with PRE students at least once. Jennifer’s meeting established “the next level of a relationship, because it’s a different relationship than when you were their instructor in a class.” She stressed the importance of students taking initiative in the relationship, indicating to them that “I’m your dissertation chair. I’m not your mother.” During their PRE meetings, most participants shared expectations such as the need for students to communicate regularly, provide updates on progress, and seek assistance when needed.

Table 2.

Themes for PRE Stage

Themes	Representative Quote	Number of comments
Find out research interests	First and foremost, I have a serious conversation with the student to find out, what is it you want to study.	15
Communicate expectations about the process	It's not about making this profound statement to the world or even to the profession. It's about one, demonstrating your proficiency in conducting research, and two, making a contribution.	12
Write the basics	I'll have them go away and brainstorm, just a brain dump of research questions. Then we come back and narrow them down to get to either a central question or a couple, no more than three questions.	9
Have meetings / discussions	Just lots of conversation about what they want to do and just listening.	8
Create a plan or timeline towards graduation	Initially it's really trying to get them to understand the timeline and the commitment of time	8
Determine students' support needs	We talk about what they need as a student in terms of feedback. Do they like to be independent? Do they need checkpoints? Do they need deadlines? How do they want me to manage that?	3

One common goal focused on the graduation timeline as PRE students often held unrealistic expectations. Jennifer explained:

One of the first things I wanted from them was a sort of a calendar of how they thought they were going to proceed. What's your end goal? When is your end goal? And then I would always say to them, okay, now add a semester because you think you're going to get done in May. I doubt that you'll get done in August.

So, you add a semester and then we would work back.

She felt building a specific timeline at the beginning created realistic expectations as well as a writing schedule for students to follow.

Other participants highlighted challenges that could derail a timeline. For example, Chris warned students: “Your pace is going to be driven many times by what you want to do and how much time you have to do it. I tell students that completing the dissertation is not a calendar-driven event.” Instead, he offered students a behavioral contract, focusing on short-term performance goals such as submitting drafts every two weeks. And Jennifer advised students not to take time off after completing course work: “They just set themselves back a semester minimum, because it’s really, really hard to restart.”

Most participants expected PRE students to read and summarize research on their dissertation topics while taking courses. For instance, Amy explained to students,

I want you to go into proposal [course] with research questions, a purpose statement, and as much of the literature review done. I want you to really be clear on what the literature says and what the problem statement is.

While most participants did not want to review written work during the PRE stage, a few participants requested a writing sample. For example, Kevin directed students to “write out your proposed title and have everything in that title that would indicate what that study is about and then some kind of methodology.” Daryl and Kristen focused on research questions so students could be clear about topic direction before putting effort into the literature review.

All participants found it difficult to quantify how much time they devoted to PRE students. Their best estimates indicated one or two meetings during a 15-week semester, with meetings lasting no more than an hour. Based on their responses, time spent with PRE students equated to approximately 8 minutes per week during a 15-week semester.

Proposal Course (PC)

Participants offered 31 comments about the PC stage, during which students work with both the PC instructor and doctoral supervisor. Table III illustrates how participants managed the PC instructor involvement, the students, and themselves.

Table 3.

Themes for PC Stage

Themes	Representative Quote	Number of comments
Communication	So when they're in proposal class, it depends on who's doing it, but for the most part that's when we start meeting.	10
Personal Strategy for PC Work	I kind of am looking more holistically at it. So I do read it, but not as much as I would once they're done with proposal class.	7
PC Instructor Balance	I don't want to contradict whatever their proposal instructor is telling them	6
Parts of the Proposal	The first three chapters of the dissertation, the proposal, those are the most challenging, I think, chapters to write because it's foundational. Everything that you do in Chapters Four and Five flow out of that, so if you have a solid Chapter One, Two, and Three, the methodology is solid and so forth, then I think the Four and Five will be relatively easy to do.	5
Variability Between Students	Sometimes students are contacting me and having me read things, but it's not usually a lot of students. And so, I would say that and they're usually struggling to get going.	3

Jennifer explained there was “an expectation of our proposal class, that whoever teaches it kind of involves the chairs in that process.” Yet, the actual practice of involving supervisors in students’ proposal work was inconsistent and seemed based on the personal preferences of the course instructor. For instance, some participants described PC instructors who required students to communicate with supervisors, while other PC instructors did not ask students to contact their supervisors at all.

When PC students requested draft reviews, participants were cautious about the feedback they offered. For example, Chris and Kristen avoided detailed feedback so they would not contradict the instructor, while Lori only provided oral feedback so she could discuss big issues instead of specific edits. All participants seemed mindful that students had a course to complete and tried to stay in the background.

Communication from students also appeared limited in the PC stage. Karl explained students were “usually struggling to get going” and most

only submitted a few pages of writing for review. Amy expressed surprise when some students seemed “reluctant to contact me” and she did not like “when they go through a whole semester and I’ve only seen maybe one draft, if any, and then they’re asking me when they could propose.” Jennifer expressed frustration with some students who reached the end of the PC stage and still did not have good research questions, despite useful feedback from the PC instructor.

The time participants devoted to PC students varied according to how much progress individual students made. When estimating how much time they spent each week with their PC students, participant responses ranged from 60 minutes to 180 minutes, with two hours per week devoted to all their PC students being the most common estimate.

Post-proposal Course (ABD)

Participants offered 61 comments for the ABD stage. As shown in Table IV, themes focused on managing the writing process and managing students.

Table 4.

Themes for ABD Stage

Themes	Representative Quote	Number of comments
Writing Support	I usually start with chapter two, and I work through the literature review with them. It's usually a mess, so I feel like I'm reteaching a lot of that content again.	29
Student Management	I'm also looking for things that keep the student motivated and keeps them moving forward, and so I'm trying to perceive where they're feeling stuck or what's keeping them stuck	24
Self Management	I'm going to feel really guilty if I told you I'd have something for you on Wednesday and I don't have it for you. I want to be able to have a realistic schedule.	5
Methods Support	They always need help with analysis, I find, whether it's quantitative or qualitative.	3

Dave acknowledged most students did not finish the first three chapters during the PC stage, so it was important to evaluate where they were with writing at the conclusion of coursework. Amy reviewed the final PC

document then requested a meeting to discuss what was missing “because they really don’t have that idea of how much more is needed.” Karl preferred students provide a proposal outline so he could identify missing topics before an in-depth review of writing.

After evaluating progress, some participants established specific deadlines for students to meet. For example, Daryl and Dave requested weekly written drafts while Karl and Kristen preferred receiving drafts every two weeks. Jennifer wanted progress updates at least once a month but only reviewed completed chapter drafts. Other participants did not set deadlines, preferring students submit drafts when they needed feedback.

The participants’ primary task during the ABD stage was reviewing written drafts and providing feedback, but they all managed this labor differently. For instance, Dave devoted one full day a week for reviews, estimating a seven-hour workday followed by another three hours in the evening. Using this approach, Dave provided weekly feedback to students. Lori also followed a weekly schedule for draft reviews, while Daryl returned drafts in 48 hours. Amy often worked late into the evening or early morning hours in order to provide feedback. And Kristen tried to limit herself to no more than 90 minutes a week to review one student’s draft. She set a timer so she did not “get bogged down on it.”

Along with time management, participants explained that they had to manage students. For instance, Amy described students who did not communicate and said that it could take “as much as a month” to notice because she was tending to all her other responsibilities. Jennifer explained that when students were not making progress, they sometimes avoided communicating, which made her feel uncomfortable. In one situation, Jennifer said “I called. I have sent emails. I contacted her on Facebook. I think she probably unfriended me.”

Participants were sometimes surprised when they finally heard from an unresponsive student. Dave described the following situation:

I contact her every week, she has never replied to me. Then out of the blue she comes up and she’s like, ‘Hey I’m ready to propose.’ I’m like, ‘You got to be kidding me.’ I laughed in her

face on the phone. I was like, 'You have lost your mind. I have been emailing you, you have not responded to one thing.'

Almost all participants described students who had similar expectations of moving quickly to a proposal defense. Kristen addressed this bluntly with students when she allowed them to set a defense date, explaining that if "your stuff still isn't right at three weeks out, you have to know that whether it's a public embarrassment or not, I'll cancel your date and move it."

One final challenge was assisting ABD students with research and writing. Kristen explained students often forgot how to perform data analysis after time away from methods courses. She had to refresh understanding of basic processes before they could move forward. Chris identified writing as the bigger challenge and encouraged some students to find an editor but shared a cautionary example as he recalled a student who asked her father to be the editor. This became problematic because the father was a newspaper editor and focused on the "economy of space and words," which did not "match the goals of a dissertation."

Discussing the ABD supervision workload, Amy described it as "just draft after draft, feedback, asking them what day they're going to check in with me, asking them when they're going to be sending me drafts." Kristen identified one particularly intense period when a student needs to meet institutional deadlines: "That is a crunch time for us as dissertation chairs. It is so much work. So the number of hours per week goes up." She estimated between three to five hours per week could be dedicated to just one student who is trying to meet deadlines.

Participants expressed feelings of being overwhelmed by supervision labor. For instance, Lori explained that supporting ABD students is "where I spend the bulk of my time" and that she works every day, including weekends. Thinking of the five students she was working with at the time of this study, Amy noted, "I'm appreciative that they're not all active" at the same time. As participants supervised multiple doctoral students, other work dropped from their schedules. Amy used to help students publish their research but said, "I was having just multiple students a year graduate, I just couldn't. I couldn't keep up with it." Jennifer acknowledged some of her colleagues "do more for students than others. I don't have time to be that."

Participants estimated ABD time spanning three to 20 hours per week, with the higher number covering students trying to meet institutional deadlines. The most common estimate was five hours per week assisting all ABD students whom participants supervised. Dave called his dissertation workload “unsustainable” and remarked, “I really hope the administration knows that because I’m drowning.”

Framework Analysis

Halse and Malfroy’s (2010) developmental doctoral supervision framework explains five concepts needed for student degree completion – a *learning alliance* (relationship and expectations), *habits of mind* (work quality and motivation), *scholarly expertise* (supervisor subject matter knowledge), *techné* (scholarly competencies), and *contextual expertise* (institution and department knowledge). As depicted in Table V, the only concept from the framework not discussed by participants is *scholarly expertise*. It is likely that because students selected dissertation topics based on personal interest, participants’ subject expertise may not have been a prominent need in the relationship.

Table 5.

Framework Connections

Dissertation Stage	Average Minutes Spent Per Week (Estimated)	Learning Alliance	Habits of Mind	Scholarly Expertise	Techné	Contextual Expertise
PRE	8	X				
PC	120	X	X			
ABD	300	X	X		X	X

One noteworthy finding is that participants revisited the *learning alliance* in all three doctoral stages. Participants shared initial expectations in the PRE and PC stages, but relationship building was limited until the ABD stage when participants established clear behavior guidelines and regular communication. Instead, participants dedicated time to *habits of mind* tasks which required some participants to use personal time in evenings and weekends, limit the quantity of student writing they would review, or forego other professional activities such as mentoring students and publishing with them. *Techné* and *contextual*

expertise were not applied until students were firmly entrenched in dissertation writing and needed to know more about technical issues and field requirements.

Discussion

This study documented the labor expended by doctoral supervisors at three different stages of dissertation development. Even though participants shared a department culture, each had their own method of managing the dissertation process. This was especially apparent in the PRE stage when some participants encouraged students to ask for help when needed while others required immediate engagement in the process. It was not until the ABD stage when all participants engaged regularly with students, but practices still varied with some participants providing weekly feedback while others waited until students had completed a full chapter to review work.

Participants spent approximately seven hours per week on doctoral supervision tasks, primarily focused on *learning alliance* and *habits of mind* concepts. If participant estimates were accurate, doctoral supervision could comprise close to 20% of a traditional 40-hour work week, exclusive to other expected campus service responsibilities. Because the doctoral supervision loads and tasks highlighted in this study align with previous research (Aspland et al., 1999; Burrington et al., 2020; Knox et al., 2011; Knox et al., 2006; Roumell & Bolliger, 2017), the estimated labor for doctoral supervision may accurately reflect what is occurring in other contexts.

Given that doctoral supervision alone accounted for almost the entire service workload required for the participants, it is not surprising that they expressed being overwhelmed, which is supported by other research (Hawkins, 2019). Participants compensated for the increased workload by dropping other practices, which has been identified as a missing element in faculty workload research (Anderson & Slade, 2016). Because faculty are rewarded for research and teaching responsibilities (Barnes & Austin, 2009), doctoral supervisors may choose to limit time spent reviewing student work, mentoring them through writing and research activities, or even publishing with them.

To alleviate some of the doctoral supervision workload, departments could pursue strategies by evaluating tasks through the Halse and Malfroy (2010) framework. For example, in this study, participants focused on with *learning alliance* tasks throughout the entire supervision relationship by reiterating expectations and managing students who did not communicate or submit drafts. The time spent by supervisors with basic relationship tasks could be replaced by a doctoral support group. While campuses may have institution- or college-wide doctoral support groups, a department-based support group would come from a shared culture and could focus more specifically on field practices and faculty expectations. Department support groups could replace some *learning alliance* tasks by building community, sharing resources and promoting peer learning (Hadijioannou et al., 2007; West et al., 2011). To increase effectiveness, the support group should have a permanent faculty or administrative coordinator for sustainability and would begin in the final year of coursework, meeting monthly to address shared topics such as creating realistic timelines or building personal accountability systems, and offering students regular opportunities to ask questions and learn from each other. At the conclusion of the year, the group could be dissolved when students enter full-time dissertation writing and begin working directly with supervisors. This approach would socialize students for desired behaviors and allow supervisors to focus more specifically on the dissertation writing process.

Another strategy is developing on-demand resources. Programs may have access to an institutional online learning management system as a private virtual space to post student resources. Videos created on topics such as establishing a writing routine or navigating institutional processes would allow students to access guidance as needed. Experienced doctoral students could even create videos providing advice to new students. The information could be integrated into a support group where students may be asked to watch a specific video then discuss it in a group meeting. The initial time investment to start such a site would eventually result in a decreased workload as the virtual library of resources expanded. The site could also be utilized for draft submissions, which would quickly identify students who are not engaging regularly.

A final strategy is to align needed dissertation tasks with pedagogical practices (Golde, 2005; Weidman & Stein, 2003). For instance, adding a

writing log and reflection requirement to a research paper could help students track the frequency and duration of writing sessions as well as think critically about writing behaviors. Such an assignment could require writing five times per week for at least 30 minutes each session, while the reflection could ask students to explain their writing preferences after experiencing the required approach. Other assignment ideas include creating an outline before a paper is written so students can practice organizing ideas, or perhaps requiring multiple drafts with both instructor and peer reviews so students practice providing and responding to critical feedback (Aitchison et al., 2012).

While this study identifies the tasks and time spent during three stages of a dissertation, there are still gaps in the scholarly understanding of doctoral supervision labor. For instance, it would be useful to more thoroughly document how much time supervisors spend with dissertation tasks by having multiple faculty across different disciplines track daily dissertation labor over an extended period of time.

It would also be beneficial to examine how this labor differs by gender or racial / ethnic backgrounds. Increased workload and stress burdens for females and historically underrepresented faculty are well documented in the literature (French et al., 2020, Guarino & Borden, 2017; Link et al., 2008; O'Meara et al., 2019; O'Meara et al., 2020), but these studies look at the totality of faculty responsibilities or the traditional delineation of teaching, research, and service categories rather than isolating doctoral supervision tasks. Identifying supervision challenges experienced by these populations could lead to additional intervention strategies for students and increased support for faculty. Similarly, doctoral supervision labor could be examined from the perspective of new faculty. Identifying how much time is spent settling into the role of a supervisor could enhance mentoring programs and inform workload considerations.

Finally, applying the Halse and Malfroy (2010) framework to future doctoral supervision studies could further understanding of how responsibilities may differ across programs, institutions, or cultural contexts. Categorizing supervision tasks through the framework provides opportunities to clarify where departments prefer supervisors spend their time versus where they actually spend it.

With increasing demands on faculty workload and decreasing resources to manage the additional responsibilities, department-based strategies could provide support for doctoral student persistence while also alleviating some of the supervision labor burden from faculty. A collective approach would reinforce expectations, encourage student reflection and resourcefulness, and potentially reframe the student-supervisor relationship. It could also increase faculty morale when the entire department is sharing the labor burdens and contributing to student success.

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