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Four supervisory mentoring practices that support online doctoral students' academic writing

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Academic writing in both face-to-face and online environments is often fraught with tension, emotion, and challenge. The quality of doctoral students' online academic writing experiences can be a difference maker in the successful completion of programs. This study examines how mentoring practices support online doctoral students' academic writing, building on prior research that identified five enabling factors of effective online doctoral supervision, with a focus on cultivating a collaborative online community of support for academic writing. Using a comparative case study approach, interviews with five recently completed faculty of education doctoral graduates at a large university in western Canada were analyzed to identify four mentoring supervisory practices that support online doctoral students' academic writing: (a) fostering a trusting, supportive community of practice; (b) engaging in regular synchronous meetings combined with iterative cycles of mentoring and scaffolding; (c) using coursework and program structures as a springboard for writing; and (d) providing diverse models of academic writing. Central to the effectiveness of the four online supervisory mentoring practices was the notion of trust which enabled students to develop their academic writing skills, scholarly identities, and successfully complete their doctoral degrees. This study is significant for identifying supervisory mentoring practices that led to students' sense of gratitude and flourishing, further highlighting how crucial relational trust is for online doctoral students' academic writing.

KEYWORDS

Online doctoral supervision, academic writing, supervisory practices, graduate mentorship, graduate student writing

Introduction

Doctoral work is often inspired by an innate sense of curiosity, an array of life experiences and diverse personal passions, and the joy found in learning new things. A substantial component of doctoral work involves communication, and particularly the complex and challenging process of scholarly writing (Calle-Arango and Ávila Reyes, 2023; Naidoo et al., 2023; Ondrusek, 2012). Seasoned scholars often repress or downplay the emotional demands and vulnerabilities associated with academic writing (Belcher, 2019; Goodson, 2023), yet these challenges remain significant barriers, particularly for doctoral students navigating the transition to academic writing. Challenges with academic writing have implications for doctoral student-supervisor relationships, such as communication, feedback, and student confidence. Exploring first time writing and feedback experiences in a doctoral program, Wei et al. (2019) identified the shift from the undergraduate and master's level—where students encountered a high degree of success and limited critical commentary—to doctoral programs which included highly evaluative peer review and critique, and expectations for not only the

sheer quantity of writing, but also multiple rounds of revision required for each work. Further, although there are beliefs within faculty that students enter the doctoral program able to write, many students express a lack of preparedness (Calle-Arango and Ávila Reyes, 2023). Indeed, transitioning from “coursework-based study to a doctoral degree involves a significant move to unstructured study and the requirement to produce a high-quality academic product contributing new knowledge to a field of study” (Bastalich and McCulloch, 2022, p. 1).

Mentoring practices that support doctoral students in making transitions to advanced academic writing are key to effective student-supervisor relationships, whether these interactions are mediated face-to-face or online. While there is a growing body of research focusing on specific interventions and strategies such as writing conferences (Consalvo and Rueter, 2024), group activities such as workshops, snack writing, and writing commons (Eaton and Dombroski, 2022; Maldonado et al., 2021; Sarnecka et al., 2022; Winberg et al., 2023; Zimmer et al., 2022), these studies primarily focus on short-term interventions rather than the overarching supervisory mentoring practices that sustain long-term writing development. This study addresses these gaps by exploring two key research questions: (1) What supervisory mentoring practices are identified as cultivating effective online doctoral student academic writing relationships? and (2) What emotions are associated with effective online doctoral student academic writing relationships?

In online environments, academic writing introduces unique challenges, such as the need for structured and timely communication with supervisors, as well as prompt and constructive feedback (Jacobsen et al., 2021; Naidoo et al., 2023). Research has shown that fostering a sense of belonging and writing self-efficacy plays a critical role in doctoral students overcoming challenges, emphasizing the importance of trust and community within virtual doctoral programs (Burkholder and Bidjerano, 2023; Miller et al., 2023). While existing research highlights various interventions to support academic writing (Maldonado et al., 2021; Sarnecka et al., 2022), there remains a need to explore the practices that integrate these strategies into cohesive and effective supervisory frameworks.

This study builds on earlier research identifying five enabling factors of effective online doctoral supervision, with a specific focus on factor five: cultivating a collaborative online community of support for academic writing (Jacobsen et al., 2021). Using a comparative case study approach (Merriam and Tisdell, 2016; Cleland et al., 2021), we analyzed data from interviews with five recently completed doctoral graduates at a large research-intensive Canadian university to determine the mentoring practices associated with effective online doctoral student academic writing skills. Findings include four supervisory mentoring practices: (a) engaging students in a trusting, supportive community of practice; (b) engaging in regular synchronous meetings combined with iterative cycles of mentoring and scaffolding; (c) using coursework and program structures as a springboard for writing; and (d) providing diverse models of academic writing. Central to the effectiveness of these online mentoring practices was the notion of trust.

A qualitative case study research design (Merriam and Tisdell, 2016) allowed for an in-depth exploration of the supervisory mentoring practices that supported online doctoral students' academic writing. While much of the existing research on doctoral writing focuses on short-term interventions (e.g., workshops, writing groups),

this study examined sustained supervisory mentoring as a relational and developmental practice that extends across a doctoral student's program. The doctoral graduates indicated that these effective supervisory mentoring practices not only assisted them in developing their academic writing practice as a tool for communication, thinking, creating new knowledge, and forming their academic identities, it ultimately lead to a deep sense of gratitude upon the completion of their doctoral degree. By explicitly addressing the identified research gap with a focus on the mentoring practices that supported student success, this case study advances the understanding of how relational trust operates in online supervision, shaping not only academic writing development but also students' confidence and scholarly identity. This study also highlights the emotional dimensions of online doctoral writing, demonstrating how supervisory mentorship contributes to student flourishing. The significance of this study lies in its contribution to improving supervisory mentorship in online doctoral education by underscoring the importance of relational trust in intentional supervisory mentorship in online doctoral programs to enhance student confidence and flourishing in academic writing.

Doctoral student writing experiences

Doctoral writing experiences in general are often emotionally fraught (Adamek, 2015; Colombo, 2018; Everitt, 2022; Huerta et al., 2017; Lavelle and Bushrow, 2007; Kirkpatrick, 2019) and include emotional responses such as fear, trepidation, stress, anxiety, feelings of low self-confidence and being overwhelmed. We argue that supervisory attention to writing as a key aspect of the online doctoral experience ensures that students develop a growing sense of belonging and self-efficacy in the academy. Supervisors, however, are not only confronted with *student* feelings in relation to the writing process, professors are also dealing with their own emotions affiliated with positive and negative writing experiences as they mentor doctoral student's academic progress (Belcher, 2019; Goodson, 2023). The rational-emotional combination presents a double helix predicament when considering supervisory practices and support for doctoral writing. In addition, supervisors need to be aware of different approaches that students may bring to the writing process (Berdanier, 2021; Lavelle and Bushrow, 2007). Lavelle and Bushrow for example, describe different doctoral student writing styles such as task-oriented (get it over with), systems-oriented (big picture), structure-oriented (organized), and intuitive (deep).

Academic writing is considered by some to be the most challenging aspect of graduate work; thus, supportive mentoring practices are needed to address the emotional, cognitive, conceptual, and methodological processes students undergo (Calle-Arango and Ávila Reyes, 2023; Colombo, 2018; Stevens and Caskey, 2023). It is not just about the writing per se - the affective, theoretical, and methodological aspects of academic composition can institute roadblocks to the construction of ideas. The notion of roadblocks aligns well with Belcher's (2019) suggestion to focus on, when writing, the large-scale aspects of the article - “its argument, evidence, structure, findings or methods” (p. 204). Furthermore, student scholars identify the need for clear expectations (Wei et al., 2019; Stevens and Caskey, 2023) as well as the provision of experiences and support in the giving and receiving of feedback (Carter et al., 2020; Catterall et al., 2011; Calle-Arango and Ávila Reyes, 2023; Chakraborty

et al., 2021; Kirkpatrick, 2019; Kumar and Coe, 2017; Larcombe et al., 2007; Wei et al., 2019). In addition, program structures must consider the inclusion of structured writing practice as part of course work (Stevens and Caskey, 2023; Larcombe et al., 2007) whereby assignments are seen as “springboard[s]” (Simpson, 2012, p. 106) to less structured, candidate-led academic writing for the dissertation (Hutton et al., 2024).

Doctoral writing in online environments introduces unique challenges, such as the need for structured and timely communication with supervisors along with prompt constructive feedback (Jacobsen et al., 2021; Can and Walker, 2014). Though research on the complexities of online doctoral writing is “sparse but growing” (Kirkpatrick, 2019, p. 22; Lee et al., 2024), studies that explore students’ experiences with online academic writing are essential to deepen understanding of effective supervision and mentoring practices that support doctoral students. In our previous research, both supervisors and doctoral graduates surfaced specific strategies, such as ensuring regularly scheduled productive meetings, and the use of a variety of online communication tools and spaces (Google docs, Zoom, text messages, emails, telephone calls) for staying connected to ensure the required responsiveness (Jacobsen et al., 2021).

In summary, the complex nature of doctoral student writing, both emotive and intellectual, whether in person or online, necessitates the need for ongoing support to ensure the successful completion of the doctoral degree. This support should be multifaceted, including regular, structured feedback, explicit guidance on academic writing expectations, and sustained mentoring practices that recognize the affective dimensions of writing. Establishing relational trust between students and supervisors is particularly critical, as this personal regard for one another fosters an environment where students feel supported in their academic identity formation and writing development.

Exploring notions of trust in doctoral student-supervisory relationships

A recent study (Jacobsen et al., 2021) identified five enabling factors key to fostering strong online student supervisor relationships with factor five being, “Cultivating a collaborative community of support for academic writing” (p. 3). Each of the five enabling factors were present in successful student supervisor relationships, however, the meta-factor across all was relational trust.

Etymologically, the *Oxford English Dictionary* (2024) indicates the origins of the word trust are Germanic, meaning “the state or condition of having something committed to one’s care or safekeeping; or of having confidence or faith placed in one; guardianship,” with “loyalty, reliability, trustworthiness” also referenced. At the heart of the word trust is a solid commitment to be bound with one another in honesty, reliability, and support.

Research on supervisory relationships demonstrates that relational trust is key to ensure that online supervisor-student relationships thrive (Jacobsen et al., 2021; Friesen et al., 2022). Relational trust evolves with both student and supervisor investing time in effective communication, and perspective taking, that starts early in the relationship and can lead to confidence in the judgements of each other. Honest communication, which starts with the supervisor, is necessary for both participants to flourish during the inevitable ups and downs of the doctoral journey, especially given the unequal power

dynamic. The supervisor is obligated to establish a trustworthy environment where the student feels safe in expressing themselves, even when this action requires great vulnerability (Makhamreh and Kutsyuruba, 2021). Trust, developed reciprocally over time, can easily be forfeited unless students witness consistency of action in their supervisor, signalling to them that they have their “best interests at heart” (Makhamreh and Kutsyuruba, 2021, p. 129). Consistency of action is often shown through constructive feedback, informed guidance, and open dialogue (Jacobsen et al., 2021; Friesen et al., 2022), which can sometimes be more challenging to maintain in online settings.

In summary, relational trust is fundamental to successful online doctoral supervision, serving as the foundation for strong student-supervisor relationships. Relational trust fosters reciprocity, consistency, and open communication, allowing students to feel safe in expressing academic vulnerabilities and developing scholarly identities. Given the inherent power imbalance in supervision, trust must be intentionally cultivated and sustained through honest dialogue, constructive feedback, and consistent mentorship.

Method

Research design

This research is derived from qualitative (Merriam and Tisdell, 2016) and explanatory case study research (Cleland et al., 2021; Yin, 2018) that identified five key enabling factors in effective online doctoral supervision (Jacobsen et al., 2021). The bounded system includes five recently completed doctoral graduates and five supervisors, from a large, research intensive university in western Canada who were purposely selected, invited, and agreed to be interviewed regarding their online supervisory relationships and experiences based on the recent, successful completion of their doctoral degree. All doctoral graduate participants were experienced educators (K-16) who had completed their doctoral studies while working in professional situations as educators and/or administrators. Of the five participants, four were female and all were first language English speakers. The study was approved by the Conjoint Faculties Ethics Review Board (CFREB). All participants provided informed consent prior to enrolment in the study.

Data collection

In the present analysis, we focus specifically on the semi-structured one-hour interviews with five doctoral graduates to examine in-depth the mentoring practices they associated with online academic writing experiences in graduate school. We identified ‘cultivating a community of support for online academic writing’ as a key enabling factor in the broader study. Building on this one factor, our secondary analysis focused on understanding the supervisory mentoring practices that doctoral graduates recognized as instrumental to developing their writing abilities.

Interview data was anonymized prior to analysis; participants were only identifiable as doctoral graduates who successfully defended their dissertation. Names used in reporting are pseudonyms.

Data analysis

A first cycle of deductive coding was conducted by all three authors who read each of the five transcripts to identify statements related to academic writing, then coding these chunks of text using the five enabling factors (Jacobsen et al., 2021) derived from our prior research. The data was organized in a spreadsheet, and we did a frequency count of codes to identify and rank the most prevalent to the least prevalent factor.

A second round of emotive coding provided insights into participant perspectives and experiences with an explicit focus on the emotions associated with academic writing (Saldaña, 2021). Inductive or open coding of emotions expressed in reference to academic writing was derived from the language used by participants.

Next, we reviewed the data within each enabling factor to identify patterns that could be collapsed into categories or themes related to graduates' descriptions of supervision and mentoring practices associated with academic writing. The resulting themes were then compared with themes emerging from other factors and the extant literature. We added direct quotes from the data into the coding framework to assist with the categorization. Interrater reliability was maintained through consensus building, using a process of reflexive thematic analysis (Braun and Clarke, 2019, 2020; Braun et al., 2022).

Findings

The findings are presented in two sections, with each section related to one of the research questions.

Research Question One: What supervisory mentoring practices are identified as cultivating effective online doctoral student academic writing relationships?

We pinpointed four mentoring practices identified by doctoral students, that working in tandem, served as instrumental to their success in online academic writing.

Practice 1: engaging students in a trusting and supportive collaborative community of practice

An important practice participants indicated as key to their progress, and linked to our previous research on relational trust, was the trusting and collaborative online community environment, one that was created based on the values of reciprocity, genuine caring, integrity, and respect (Bryk and Schneider, 2002; Friesen et al., 2022). As Alex attempted to articulate, "You cannot, you do not, it's not stand alone." The supervisor was often at the forefront in facilitating the creation and sustainment of this trusting online community which included the supervisory committee, course instructors, and student peers in the program.

According to some participants, the supervisory committee played a significant role and was important within the collaborative community of practice, with all members working as a team to support the doctoral student's writing. This team approach to mentoring academic writing yielded multiple benefits, such as

providing ready access to diverse faculty members who possessed a broad background and experience where their "strengths were different from my advisor's strengths" (Alex). The committee provided students with multiple experts they could trust and turn to regarding disciplinary knowledge and methodological approaches to research, data analysis, and the drafting of manuscripts. The supervisor, in helping to select committee members, and in leading mentoring conversations with the committee during online meetings, played an important leadership role in establishing this collaborative community of support. The committee also filled in when the supervisor was unable. For example, Shawn stated, "[Supervisor] got really busy with work. However, [Supervisor] had scaffolded it so other people were there to support me."

In addition to regular online connections with their supervisor and committee, graduates emphasized the value of their online cohort as a community of practice and source of peer mentorship. Peers served as critical friends who offered authentic feedback and diverse perspectives, while also questioning and challenging each other. This online community of peers was important because together the doctoral students were learning how to *be* academics by engaging in thoughtful critiques of not only their own ideas, but of the ideas expressed by peers. Peer support meant the online cohort engaged in a shared experience where all ideas were valued, and where the doctoral students motivated each other to keep going and care for each other. In describing their experience, Morgan stated

Our cohort had developed some pretty tight relationships. And so the feedback was more authentic, I would say, more true critical friend, where, I care about you, you have great research ideas, and I'm going to give you feedback that's going to nudge you, not just help you feel good about yourself.

Morgan highlighted the role of peer support in helping doctoral students not only improve their work, but also build a sense of belonging and motivation within the academic community.

Alex described how when supervisory scaffolding was lacking, they sought support from their cohort and supervisory committee, whom they described as their "life preserver." Alex compared the depth of feedback received from their supervisor to the committee members:

Whereas they [the Committee] were like, what are you actually saying in this? My advisor was more around the wordsmithing of stuff and you know, cropping things, so I was just stating as opposed to telling a story, they [the committee] were kind of like what is the information you're putting out there and what are you trying to get people to receive from this and how should you structure it so that it really has an impact?

The combination of supervisory, peer, and committee feedback created a comprehensive support system that fostered the academic growth of these doctoral students, providing them with multiple avenues to refine their ideas and writing.

Alex's statement speaks to the challenge for doctoral students where writing is used as a mechanism for constructing knowledge. Scholars acknowledge the complex process of writing to create new knowledge that moves beyond the telling of ideas to transformation, which requires support (Ondrusek, 2012; Jackman et al., 2024). In

Alex's case, this support came not from the supervisor, but from the supervisory committee and their peer cohort.

I don't want it to sound like I didn't have support because I did. Every time I emailed my advisor they got back to me, but I got a lot of my support in terms of writing my dissertation from two people that were in my cohort. I got most of my support from writing the actual, the content and how it should flow, from them.

This reliance on peers and committee members highlights the importance of multiple layers of support for doctoral students, ensuring they have access to guidance that meets their academic and emotional needs throughout the dissertation writing process.

Alex's metaphor of "life preserver," as committee support in a very real sense, spoke to their feelings of abandonment by the supervisor and rescue by committee members and peers. Although their supervisor's email replies signalled an acknowledged form of "support," what Alex seemed to be longing for as indicated by her comments about the supervisory committee, was a trusting and relational dialogue around the expression of ideas they were exploring.

Other participants recounted that the most important relationship in their online doctoral program was their supervisor. As Jesse explained, "I had a really good supervisor who was willing to work with me in a way that made sense for us. And that made the program better for me." Although Jesse indicated they dialogued with members of their cohort about general education topics, they did not explore their writing and writing process with peers in depth. "I mean, other than talking about education, just generally what people were thinking about, it really felt like those were two separate processes." In essence, for Jesse, the writing support and feedback was provided solely by their supervisor.

When it came to writing the dissertation, Morgan expressed a longing for associations beyond their supervisor and committee. "With my program, I did not have enough of a connection with other people outside of my supervisor and my supervisory committee at the back end," suggesting the benefit of creating a trusting *community* of support that exists beyond the supervisor and committee that students can draw upon as needed. The importance of a community of support for doctoral writing was identified in our larger study (Jacobsen et al., 2021) and is echoed in other research (Kar, 2024; Kirkpatrick, 2019; Wikeley and Muschamp, 2004).

The supervisor, in possessing more intimate knowledge of the doctoral student, however, can make the difference in a student thriving instead of merely surviving the academic writing journey. The strong relationships that four participants, Morgan, Shawn, Jesse, and Leslie described with their supervisors linked to a balanced connection to a broader community of practice in which they thrived. For Alex, a weak relationship with their supervisor meant they experienced abandonment and isolation and had to draw heavily on the extended community of support to survive. Alex described a lack of confidence while completing their dissertation and for undertaking further research, while highlighting the need for a competent and responsive supervisor.

The combination of supervisory, peer, and committee engagement and feedback created a comprehensive support system that fostered the academic growth of these doctoral students, providing them with multiple avenues to refine their ideas and writing. However, addressing the challenges and barriers to academic writing, including emotional

investment and vulnerability, cannot fall entirely on the supervisor. Establishing a collaborative community of practice that actively engages in supportive measures and ongoing feedback is an important consideration in program and institutional structures (Adamek, 2015; Aitchison and Paré, 2012; Belcher, 2019; Catterall et al., 2011; Chakraborty et al., 2021; Stevens and Caskey, 2023), while "resituat[ing] the supervisor, not as the sole provider of support but as an important anchor within a network of wider contacts and supports" (Bastalich and McCulloch, 2022, p. 9).

Practice 2: engaging in regular synchronous meetings with iterative cycles of mentoring and scaffolding

The most prevalent supervisor practice participants described for cultivating productive online writing relationships was regular and iterative cycles of mentoring and scaffolding. This practice occurred during various phases of written doctoral work: (i) during coursework and dissertation background reading and pre-writing, (ii) during mentoring conversations to explore ideas, and (iii) during the sharing of written drafts with the supervisor and supervisory committee. Mentoring and scaffolding existed in the form of timely and tailored feedback on writing with a focus on incremental and continual improvement (Carless et al., 2024; Kumar and Coe, 2017; Larcombe et al., 2007; Polkinghorne et al., 2023). As Shawn stated, "the whole idea was that you are supposed to grow. It was progress," while Jesse indicated, "I felt like it was okay to send something in that wasn't perfect." Participants indicated that regularly scheduled and frequent online meetings with their supervisor regarding their writing led to the continual identification of next steps including the intentional preparation for goals like candidacy and passing the final oral exam. The "meetings" happened in a variety of channels, depending on the need, by telephone, text, on Zoom, or working synchronously and asynchronously in shared Google docs leading to a "feedforward" approach where "student improvement was a key goal." Participants placed the supervisor at the center, attending to the provision of timely assessment and student application of feedback in service of the long-term goal (Sadler et al., 2022, p. 9). Participants also highlighted the importance of feedback that they saw as non-judgemental and that came in the form of questions, encouragement, suggested resources, and a focus on process. Leslie confirmed, "the feedback was there, and encouragement and resources [Supervisor] would send my way." There was also a recognition that sometimes scaffolding could involve direct instruction and was linked to assisting students in making sense of methodology, data collection, and analysis possibilities, and directing students where to go next in their writing. Alex described their experience with direct instruction: "It felt better having someone say to me, that's what you are doing. That's *not* what you are doing. Focus on this." This combination of iterative cycles, timely feedback, and diverse modes of online support helped students to progress steadily through their academic writing, reinforcing both their confidence and their scholarly development.

Graduates acknowledged the importance of the supervisors' provision of *timely* feedback (Carter et al., 2020; Can and Walker, 2014; Kar, 2024; Lim et al., 2019; Naidoo et al., 2023). As Morgan explained, "The timeliness of it was really helpful because you would get some momentum going in an aspect of your research or writing

up and having that timeliness of the feedback just really helped me when I needed to keep the momentum going.” Timely feedback not only helped students maintain momentum but also reinforced their confidence in navigating the complex stages of their research and writing.

In contrast, the lack of timeliness in supervisor feedback was also noted. Reflecting on an adverse experience of a colleague in comparison to their own, Leslie stated:

Like he could wait months before he got feedback. That's not feedback. That's nothing. Because by now you've lost your train of thought. Not just your train of thought, but you've found other research, more literature. Now you're bringing that in. Now you're going in a different direction.

Delayed feedback can have significant consequences. It can cause doctoral students to experience confusion and misalignment in the research process, which can hinder their progress and negatively impact the overall direction of the dissertation.

Participants described how their supervisor's knowledge of the field was a key component to their steady progress in writing. One praised their supervisor's mentorship as vital in promoting their emerging coherence of thought and expression. Jesse stated their supervisor had “such a depth of knowledge in terms of, you know how this fits to this, and what about this, and consider this angle.” The supervisor's expertise not only helped refine students' ideas but also facilitated a deeper understanding of the interconnectedness of concepts, which enhanced the overall quality of the student's academic writing.

One of the five participants spoke about the *desire* for such a relationship with their supervisor; however, their lived experience suggested something different. Alex recounted their supervisor's focus on procedural errors in their writing, stating, “my advisor is really good at, like, catching me on the APA and stuff but in terms of the content, that was a real struggle for me.” Alex articulated a supervisory practice that portrayed writing as a focus on mechanics rather than the development and structuring of ideas (Darland et al., 2024; Ondrusek, 2012). In addition, doctoral students not only often face challenges in the writing process, they also must contend with conceptual and methodological challenges, as well as an array of feelings associated with being a novice scholar (Calle-Arango and Ávila Reyes, 2023; Colombo, 2018; Gimenez et al., 2024).

Practice 3: building on coursework and program structures as springboards for academic writing

A third practice participants identified as supportive was the instruction and practice with academic writing through specific coursework and program structures. Participants found it helpful when program structures (Friesen and Jacobsen, 2021) linked coursework with dissertation writing. Establishing a collaboratory of practice fostered supportive feedback networks and provided shared experiences. Opportunities to engage in research as a research assistant also enhanced the academic writing process. The academic preparation gained through practice writing in coursework was a vital part of student growth in that it provided not only procedural support,

for example with APA and ethics preparation, but it offered early writing experiences as a learning and practice opportunity (Stevens and Caskey, 2023). Shawn described how “the research courses were really my reflection courses which surprised me. I thought they would be other spaces because they became very personal. It was about who are you as a researcher and which methodological approach are you going to take?” Shawn's personal reflection through coursework enabled students to gain clarity on their research identity and methodological choices, ultimately helping them progress with their dissertation writing.

Leslie articulated how linking the coursework with aspects of dissertation writing supported their learning, even though they did not utilize the writing from the course work per se in their dissertation: “It helped me to learn how to do it, but I had to totally redo that [in the dissertation]. So, was the content what it is now? No. Was the process? Yes. I learned the process.” By linking aspects of coursework with writing the dissertation, the participants described connections and structured opportunities that promoted thinking and garnered feedback on their initial ideas. Morgan indicated:

One of the major assignments was to start fleshing out your research plan. And then we presented this to the class and received feedback from them. So, it was a way to get peer support and kind of unpacking and thinking [about] our ideas.

These experiences helped to scaffold students' transition from structured coursework to independent dissertation writing, ensuring they were better equipped to refine their research approach.

Variability in the quality of instruction and course design, however, also presented challenges. Leslie stated, “Were there some gaps? Yes. And that would be dependent again on who is leading which course and how it is set up.” Shawn also described the challenge associated with varying quality in instruction and course experiences.

It was course design. It was the way it was taught. We didn't even receive feedback on our projects, like there were many issues. [It] still makes me uncomfortable. And we still talk about it as a cohort because it really did affect our choices for our research because we didn't understand what to do.

Shawn articulated, however, how their supervisor responded to the challenge. Based on a negative course experience, Shawn's supervisor advised them to take an additional course to address their learning gap. These inconsistencies in course design and instructional quality had a direct impact on students' ability to effectively plan and carry out their research, underscoring the importance of well-structured and supportive course designs and academic environments.

For Alex, who experienced coursework as a positive structure that supported their thinking and learning, they also indicated these experiences were disconnected from writing the dissertation. “After the 2 years of coursework, we started writing our dissertation and it was us and our advisor. And so, all of that was great up until it was time to write our dissertation.” In this case, Alex viewed coursework and dissertation writing as separate processes, and it was the latter where the supervisory relationship came into prominence and was not always experienced as positive or helpful for their progress.

Leadership in program design that explicitly links coursework and program structures to enhance opportunities for doctoral students to

develop self-confidence and become more familiar with academic writing conventions (Friesen and Jacobsen, 2021), while developing a base of discipline and methodological knowledge (Stevens and Caskey, 2023), is key to providing an academic environment and research culture that supports effective supervisory practice.

Practice 4: providing diverse models of academic writing for various purposes

A fourth practice identified by participants as important was providing access to diverse models and examples of writing that students would experience in academia (Carter et al., 2020; Eaton and Dombroski, 2022; Sarnecka et al., 2022). Supervisors, committee members, and other faculty modeled writing for various purposes, from proposal writing to grant writing to award and fellowship applications, to the academic writing process involved in preparing individual papers for peer review. Shawn described the importance of support when they applied for and received, with their supervisor's guidance, an international fellowship related to their doctorate. "It was a way of modeling what the expectation was in academia, because coming from [a workplace setting], I had no idea what the expectations were." Instead of starting from scratch, the doctoral student was scaffolded into this form of academic writing for a particular purpose (fellowship application) using examples provided by the supervisor from within the discipline.

Jesse augmented their own research and writing by building on their supervisor's work within a national professional organization, which provided a springboard and inspiration for doctoral study. "I think I really lucked out working with [my supervisor] and some of the work that they'd done with [a National Organization]." Jesse acknowledged how the writing experience assisted them in other aspects of their professional work following completion of their degree. "But even just developing that confidence with a research proposal helped me to write some other grants after, right?" These experiences not only supported Jesse's immediate academic success but also had long-term professional benefits, reinforcing the value of strong mentorship and applied learning in academic settings.

In the absence of mentoring from their supervisor, however, Alex sought writing models on their own. Alex described how they "literally lived at the library for two years." Asked to explain in more detail, they stated, "I downloaded and read several dissertations to kind of help me because I did not know. Like you really do not know." They also recounted how later in the doctoral program they used a colleague's dissertation as a prototype. "It was her dissertation that I used as a template for, what should it sound like, how should the layout of it be?" Given the lack of mentorship from their supervisor, Alex was left to search out and analyze writing models on their own, resulting in an extended time in the program, and their constant questioning of whether they could complete a dissertation at all.

The expectations and "environment of doctoral study has become more writing-rich than ever before" (Aitchison and Paré, 2012, p. 13; Burford et al., 2021). Growing pressure to produce a variety of quality academic texts associated with and beyond the dissertation range from conference proposals to ethics and grant applications, to journal articles, and is an assumption of modern doctoral participation. For these doctoral graduates, the models provided to them, or accessed by them, offered opportunities to build competence and confidence not

only in terms of the structures and syntax of academic writing, but also in relation to the mores and traditions of academic deportment.

Research question 2: what emotions were associated with effective online doctoral student academic writing relationships?

Several participants reported positively on the mentoring practices, while a few lamented on the absence of the mentoring practices. Next, we present a synthesis of emotions expressed by doctoral graduates when describing experiences with online academic writing in relation to the literature. We concur with other scholars that it is important for supervisors' to acknowledge emotions as potential "affective barriers" to writing (Goodson, 2023; Lim et al., 2019; Ondrusek, 2012, p. 182). In our analysis, however, we found that positive emotions were most common in the data. We posit this finding was due to an interview focus on supervisory practices that supported doctoral students. For example, of the ten most frequently cited emotions, the majority were positive. Our analysis suggests that supervisory practices that focus on fostering trust and confidence can play a critical role in mitigating the negative emotions often associated with academic writing.

Overall, we found the most prevalent emotions revealed in participant comments were positive, with a deep sense of gratitude and appreciation for their supervisor. When reflecting on the overall experience, Shawn stated, "I had a wonderful experience ... I always felt it was a team." Jesse suggested their supervisor was the key to their completion: "But if I did not have that person that I trusted, it would have been hard to get through." Leslie described their supervisor as "so dedicated, crazy amazing" and their experience as, "A good life changing [which] has left me with, you know, the yearning for more." The importance of relational trust, intentionally established and fostered in the online environment, as a key component not only in academic writing success, but successful completion of the doctoral degree, emerged strongly in the data.

Most doctoral graduates described how their supervisor listened to their ideas, took time to understand their needs, and provided personalized and timely support with their academic writing. Doctoral graduates expressed plenty of trust in their supervisor: trust they would respond in a timely manner; trust the feedback provided would be given in the spirit of improvement, revision (seeing again), and refinement (making more clear), and trust the feedback was based on a deep understanding of the field (because as Shawn stated, "you do not know what you do not know"). When that trust was lacking, (as in the case of Alex) there was a very real feeling of isolation and abandonment.

In essence, most of the doctoral graduates expressed appreciation for supervisors who extended the very best of themselves to propel the writing forward, who supported the ideas that were just emerging, and who were deeply invested in the students becoming proficient writers.

Although mostly positive, emotions such as frustration, isolation, and vulnerability, did present themselves during the interviews and often were described in visceral terms. For example, Shawn mentioned their fear and frustration at a lack of understanding of data analysis procedures that blocked their writing.

I wasn't able to write until I got through it [data analysis]. And I think that was really scary. Because then it was that moment when you think, am I ever going to get this done? Because I don't

know how. But the writing didn't happen or the [writing] tidal wave didn't happen until after [they received support with data analysis].

This same challenge was described, but with more emotional intensity, by Alex.

But I almost feel traumatized because you're, so at least in our cohort, you're so out there on your own in terms of collecting the data and sifting through it all and getting through it all. Like it's not like you have money to hire people to help you or you're sitting there talking it out with someone and you're in it together. Like you are kind of in it alone and that's kind of a really daunting position to be in.

A lack of understanding of data analysis was described by Alex, who shared the sense of isolation and overwhelm associated with navigating data collection and analysis alone. Alex's accounts underscore the emotional toll that the research process can take on students and highlight the critical need for timely support and ongoing guidance from supervisors to alleviate these pressures and foster academic progress.

As the participants expressed, learning to not only gain expertise in the discipline, critically analyze and synthesize data, but also “navigate the tensions between “knowledge telling, transformation and creation” (Gimenez and Thomas, 2015, p. 29; Gimenez et al., 2024, p. 2) amongst a myriad of conflicting emotions, often left doctoral students feeling alone and isolated. The feelings of intense vulnerability described by some participants speaks to the importance of foundational supervisory noticing in online relationships, with robust attention to frequent personal connections in various modalities to overcome isolation and geographical dispersion, coupled with writing and mentoring practices at critical times in the program (Jacobsen et al., 2021) to effectively scaffold doctoral students' learning to be scholars.

Discussion

A well-established body of research focuses on the structural or temporal supports for academic writing, such as the pedagogic “know-how” needed for success (Catterall et al., 2011; Everitt, 2022; Gimenez et al., 2024; Jones, 2018; Stevens and Caskey, 2023). We also contend that trust, community, and ongoing responsiveness to not only the academic, but also the emotional needs of the doctoral student writers are important elements leading to successful completion of their degree.

The importance of relational trust

The significance of trust as an essential component of the highly emotive process of academic writing (Jacobsen et al., 2021; Lim et al., 2019), however, cannot be understated as doctoral students “make major adjustments in how they view knowledge, learning, written expression, and themselves” (Ondrusek, 2012, p. 180). Underpinning the success for doctoral students' online academic writing was the relational trust built with their

supervisor - they trusted their supervisor would mentor and scaffold their writing experiences and leverage the program structures for their learning benefit and progress (e.g. the supervisor who advised Shawn to take an extra course). Four of the five doctoral graduates described the supervisor as a key leader in the collaborative online community of support that surrounded their academic writing experience, which included the supervisory committee, student peers, and instructors, enabling them to flourish and thrive as academic writers.

There is an intimacy that develops as supervisors observe their doctoral students becoming more confident scholars and writers in the collaborative presence of knowledgeable others. Rather than seeing the online doctoral program as a rite of passage where the apprentice is a neophyte researcher under the guidance of an expert in a hierarchical power relationship (Jacobsen et al., 2024a,b; Halse and Bansel, 2012), our study findings indicate that supervisors who nurtured doctoral student writers, even in virtual settings, led to deep feelings of gratitude and reciprocity. This finding suggests that intentional, effective relational practices with and beyond the supervisor that support doctoral student writing are connected to empowerment and flourishing versus hierarchy and power. Our findings align with Makhamreh and Kutsyuruba (2021), who emphasize that relational trust is fundamental in supervisory practices, particularly in fostering academic writing success. Their study highlights how trust-based relationships in supervision lead to greater student engagement, confidence, and the ability to navigate the complexities of doctoral writing. Our study further extends this by demonstrating that, even in online settings, relational trust not only influences academic progress but also mitigates emotional barriers, ultimately shaping the doctoral student experience and development as a confident academic writer.

The importance of a collaborative community of support

According to some doctoral graduates, the selection of committee members was a pivotal action by the supervisor. When supervisors sense integrity, a component of relational trust (Bryk and Schneider, 2002), among colleagues and possible committee members, they recognize shared and common views and perceive that the actions and support provided to the doctoral student by others will be consistent with their views. In supervision, this decision means going beyond the semi-private / private nature of student-supervisor relationships and one-on-one work with their students, to purposefully engaging and cultivating meaningful collaborations for supporting doctoral student writing with colleagues, while considering the students' positionality and vulnerability as learners.

As acknowledged by doctoral graduates in this study, the collaborative community of support plays a vital role in making visible effective supervision practices, and “recognizes that all participants in the doctoral process bring resources to and make demands on each other but defines their relationship as a cooperative endeavour of reciprocal responsibilities and obligations” (Halse and Bansel, 2012, p. 384; Roos et al., 2021). While supervisors have the primary responsibility for mentoring and guiding a student's development and progress, they also need to recognize and leverage supervision of doctoral students as part of a collaborative community of support (Jacobsen et al., 2021; Catterall et al., 2011; Chakraborty et al., 2021; Gimenez et al., 2024; Jones, 2018).

The findings from this case study reinforce the importance of integrating supervisory, peer, and committee feedback into a cohesive support system. This integrated approach fosters academic growth by providing doctoral students with multiple avenues to refine their ideas and writing. Our study builds on previous work by demonstrating that supervisory structures are most effective when they extend beyond dyadic relationships to include a network of support (Catterall et al., 2011; Gimenez et al., 2024). This aligns with research on collaborative learning environments, which suggests that shared intellectual engagement fosters greater motivation, deeper conceptual understanding, and a stronger sense of belonging within academic communities (Jacobsen et al., 2024a,b; Jones, 2018). These findings are particularly relevant in online doctoral programs, where sustained engagement with peers, committee members, and faculty can mitigate the isolation often associated with independent research. A holistic framework that recognizes both the academic and emotional dimensions of doctoral writing is critical in helping students persist and thrive in their programs.

The importance of ongoing feedback

Within the support community, feedforward is a crucial element when grappling with the questions, “Where am I going? How am I going? Where to next?” (Hattie and Timperley, 2007, p. 87; Sadler et al., 2022). This means that feedback on writing is sometimes provided as direct instruction and other times as specific recommendations of scholarly resources to promote thinking. The feedback should go beyond mechanics and editing to focus most importantly on content and structural coherence (Darland et al., 2024; Ondrusek, 2012), and draw on committee members’ broad range of methodological, discipline, and writing knowledge to encourage the promotion of academic writing as a tool for thinking.

Program structures and coursework can impact doctoral student writing success as indicated by some of our participants. The practice of instructors and supervisors engaging in tailored dialogue with doctoral students during completion of coursework to bring awareness and acknowledgement of the complexity of the academic writing process, while encouraging its use as a tool for thinking, is recommended. Developing regularly scheduled check-ins throughout the program to monitor doctoral student progress in relation to their understanding of theories, methodologies, and data collection and analysis processes were suggested by doctoral graduates as well as participation in diverse forms of academic writing and research (e.g., research assistantship).

In addition, program structures should be designed for students to maintain continued connections with their doctoral student cohort once the coursework is completed and they transition to the research program and dissertation writing stages. By integrating relational trust, a collaborative community of support, and iterative cycles of feedback, institutions can create more sustainable environments that foster both academic success and student well-being in online doctoral programs.

Conclusion

In this case study research, we identified four supervisory mentoring practices that positively impacted doctoral student online

academic writing experiences and their expressed feelings of trust and gratitude: (a) engaging students in a trusting, supportive community of practice; (b) engaging in regularly scheduled synchronous meetings with iterative cycles of mentoring and scaffolding; (c) using coursework and program structures as a springboard for writing, and; (d) providing diverse models and mentoring of academic writing. We also found that online doctoral graduates’ recognition and acknowledgement of these practices in their supervisors led to positive emotive responses, in particular gratitude, and a growing confidence in their academic writing abilities and emerging identities as scholars.

Limitations

There are several limitations to this case study that must be acknowledged. First, the findings are based on a small sample size of first language speakers from a single institution in one country, which may limit the transferability of the results. Second, as the findings are derived from doctoral graduates’ retrospective accounts, they may be influenced by agreement bias or selective memory, as all participants successfully completed their programs. Third, this study focuses on academic writing, which represents only one aspect of the doctoral experience. As such, the findings may not capture the full complexity of student-supervisor relationships or the broader doctoral program experience. Finally, while the study emphasizes online doctoral programs, we submit that the identified practices may be universal and relevant across both face-to-face and online modalities, but further research is needed to confirm this assumption.

Future research directions

Given the study’s limitations, future research could explore several key areas. Studies could examine how these mentoring practices operate across different cultural and institutional contexts to better understand their adaptability and effectiveness. Additionally, longitudinal research with a larger sample size could provide richer insights into how mentoring practices evolve over the course of the entire doctoral journey and their impact on both academic and professional outcomes. Another potential area of research is studying the intersection between supervisory practices and equity, diversity, and inclusion, particularly how these practices support students from historically minoritized groups. Finally, comparative studies between face-to-face and online doctoral programs could identify nuances in how mentoring practices are enacted in different modalities, offering a deeper understanding of their universal or context-specific nature.

Significance of the study

This study contributes to the growing body of research on fostering strong doctoral student-supervisor relationships, which is the importance of cultivating a collaborative community of support for academic writing (Jacobsen et al., 2021) and the importance in building relational trust between supervisor and doctoral student (Friesen et al., 2022). While aligning with prior studies on the critical

role of supervisors in supporting doctoral students' academic writing and successful completion of their program (Jacobsen et al., 2021; Polkinghorne et al., 2023), a key contribution of this study is the demonstrated value and importance of an online collaborative community of support for doctoral students' online academic writing (Kar, 2024; Kirkpatrick, 2019; Naidoo et al., 2023). A collaborative community of support includes regular access to and support of supervisory committee members, course instructors, doctoral student peers, and the doctoral cohort, coupled with sound program structures (Friesen and Jacobsen, 2021), to cultivate and advance doctoral student growth as academic writers. This study is significant in that it underscores the potential for joy and flourishing in doctoral education when holistic and relational approaches are employed to support students' academic journeys.

Data availability statement

The datasets presented in this article are not readily available because we wish to protect the privacy of the participants. Requests to access the datasets should be directed to sandra.becker@ucalgary.ca.

Ethics statement

The studies involving humans were approved by University of Calgary Conjoint Faculties Research Ethics Board (CFREB). The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

References

- Adamek, M. E. (2015). Building scholarly writers: student perspectives on peer review in a doctoral writing seminar. *J. Teach. Soc. Work.* 35, 213–225. doi: 10.1080/08841233.2014.995333
- Aitchison, C., and Paré, A. (2012). "Writing as craft and practice in the doctoral curriculum" in Reshaping doctoral education: International approaches and pedagogies. eds. A. Lee and S. Danby (London, UK: Taylor and Francis), 12–25.
- Bastalich, W., and McCulloch, A. (2022). The ideal research degree supervisor 'can play any role': rethinking institutional orientation and induction for commencing doctoral students. *Innov. Educ. Teach. Int.* 61, 581–596. doi: 10.1080/14703297.2022.2158117
- Belcher, W. (2019). Writing your journal article in twelve weeks: A guide to academic publishing success. 2nd Edn. Chicago: The University of Chicago Press.
- Berdanier, C. G. (2021). Linking current and prospective engineering graduate students' writing attitudes with rhetorical writing patterns. *J. Eng. Educ.* 110, 207–229. doi: 10.1002/jee.20368
- Braun, V., and Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qual. Res. Sport Exerc. Health* 11, 589–597. doi: 10.1080/2159676X.2019.1628806
- Braun, V., and Clarke, V. (2020). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qual. Res. Psych.* 18, 328–352. doi: 10.1080/14780887.2020.176923
- Braun, V., Clarke, V., Hayfield, N., Davey, L., and Jenkinson, E. (2022). "Doing reflexive thematic analysis" in Supporting research in counselling and psychotherapy. eds. S. Bager-Charleson and A. McBeath (London, UK: Palgrave Macmillan), 19–38.
- Bryk, A., and Schneider, B. (2002). Trust in schools: A core resource for improvement. New York: Russell Sage Foundation.
- Burford, J., Amell, B., and Badenhorst, C. (2021). "Introduction: the case for re-imagining doctoral writing" in Re-imagining doctoral writing. eds. C. Badenhorst, B. Amell and J. Burford (Fort Collins, CO: University Press of Colorado), 3–28.
- Burkholder, G. J., and Bidjerano, M. (2023). Getting them done: a qualitative study of characteristics of mentors successful in graduating online students in a distance education context. *Mentor. Tutor.* 31, 489–511. doi: 10.1080/13611267.2023.2225393
- Calle-Arango, L., and Ávila Reyes, N. (2023). Obstacles, facilitators, and needs in doctoral writing: a systematic review. *Stud. Cont.* 45, 133–151. doi: 10.1080/0158037X.2022.2026315
- Can, G., and Walker, A. (2014). Social science doctoral students' needs and preferences for written feedback. *High. Educ.* 68, 303–318. doi: 10.1007/s10734-014-9713-5
- Carless, D., Jung, J., and Li, Y. (2024). Feedback as socialization in doctoral education: towards the enactment of authentic feedback. *Stud. High. Edu.* 49, 534–545. doi: 10.1080/03075079.2023.2242888
- Carter, S., Guerin, C., and Aitchison, C. (2020). Doctoral writing: Pleasures, practices, processes. Singapore: Springer.
- Catterall, J., Ross, P., Aitchison, C., and Burgin, S. (2011). Pedagogical approaches that facilitate writing in postgraduate research candidature in science and technology. *J. Univ. Teach. Learn. Prac.* 8, 1–12. doi: 10.5376/1.8.2.7
- Chakraborty, D., Soyoo, A., Moharami, M., Utami, A. D., Zeng, S., Cong-Lem, N., et al. (2021). Feedback as a space for academic social practice in doctoral writing groups. *Educ. Dev. Psychol.* 38, 238–248. doi: 10.1080/20590776.2021.1972764
- Cleland, J., MacLeod, A., and Ellaway, R. H. (2021). The curious case of case study research. *Med. Educ.* 55, 1131–1141. doi: 10.1111/medu.14544
- Colombo, L. (2018). The role of social relations in the making of a doctoral thesis. *IJERI* 10, 366–378.
- Consalvo, A., and Rueter, J. (2024). Supporting graduate students' writing in online courses. *J. Coll. Read. Learn.* 54, 14–31. doi: 10.1080/10790195.2023.2275051
- Darland, D. C., Gisi, E. M., Hampton, J. R., Huang, H., Kantonen, L. M., Kong, D., et al. (2024). Student-centered approaches to breaking through scientific writing barriers. *J. Coll. Sci. Teach.* 53, 445–453. doi: 10.1080/0047231X.2024.2373022

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- Eaton, C., and Dombroski, J. (2022). Supporting graduate writers through a writing commons. *AB J. Educ. Res.* 68, 499–514. doi: 10.55016/ojs/ajer.v68i4.73428
- Everitt, J. (2022). How involved should doctoral supervisors be in the literature search and literature review writing? *Teach. High. Educ.* 28, 894–901. doi: 10.1080/13562517.2022.2145468
- Friesen, S., Becker, S., and Jacobsen, M. (2022). “Online doctoral student-supervisory relationships: exploring relational trust” in *Online learning and teaching from kindergarten to graduate school*. eds. M. Jacobsen and C. Smith (Canadian Association for Teacher Education), 282–306.
- Friesen, S., and Jacobsen, M. (2021). Collaborative design of professional graduate programs in education. *Int. J. Des. Learn.* 12, 64–76. doi: 10.14434/ijdl.v12i1.25778
- Gimenez, J., and Thomas, P. (2015). A framework for usable pedagogy: case studies towards criticality, accessibility and visibility. *Working With Academic Literacies: Case Studies Towards Transformative Practice*, eds. T. Lillis, K. Harrington, M. Lea, & S. Mitchell, Anderson, SC: ParLOUR Press, 29–44.
- Gimenez, J., Paterson, R., and Specht, D. (2024). Doctoral writing through a trajectorial lens: an exploratory study on challenges, strategies and relationships. *High. Educ.* 87, 491–508. doi: 10.1007/s10734-023-01019-7
- Goodson, P. (2023). *Becoming an academic writer: 50 exercises for paced, productive, and powerful writing*. 3rd Edn. Thousand Oaks, CA: SAGE.
- Halse, C., and Bansel, P. (2012). The learning alliance: ethics in doctoral supervision. *Oxf. Rev. Educ.* 38, 377–392. doi: 10.1080/03054985.2012.706219
- Hattie, J., and Timperley, H. (2007). The power of feedback. *Rev. Educ. Res.* 77, 81–112. doi: 10.3102/003465430298487
- Huerta, M., Goodson, P., Beigi, M., and Chlup, D. (2017). Graduate students as academic writers: writing anxiety, self-efficacy and emotional intelligence. *High. Educ. Res. Dev.* 36, 716–729. doi: 10.1080/07294360.2016.1238881
- Hutton, L., Olejnik, M., and Kunkel, M. C. (2024). Navigating contradictions while learning to write: a disciplinary case study of a first-term doctoral writer. *ATD* 21, 21–42. doi: 10.37514/ATD-J.2024.21.1.03
- Jackman, P. C., Sanderson, R., and Sisson, K. (2024). “Transition to doctoral study” in *Prioritising the mental health and wellbeing of doctoral researchers: Promoting healthy research cultures*. eds. J. Creaton and O. Gower (New York, NY: Routledge), 32–50.
- Jacobsen, M., Friesen, S., and Becker, S. (2021). Online supervision in a professional doctorate in education: cultivating relational trust within learning alliances. *Innov. Educ. Teach. Int.* 58, 635–646. doi: 10.1080/14703297.2021.1991425
- Jacobsen, M., Friesen, S., and Becker, S. (2024a). Learning doctoral supervision in education: a case study of on-the-job development of effective mentoring practices. *Int. J. Doc. Stud.* 19:012. doi: 10.28945/5375
- Jacobsen, M., Neutzling, N., Lorenzetti, L., Oddone Paolucci, E., Nowell, L., Clancy, T., et al. (2024b). Examining graduate student perspectives on supervision and peer mentoring across four professional faculties. *Stud. Grad. Postdoc. Educ.* doi: 10.1108/SGPE-03-2024-0035 [ahead of print].
- Jones, D. R. (2018). A proposed systems model for socializing the graduate writer. *Stud. High. Educ.* 43, 173–189. doi: 10.1080/03075079.2016.1160276
- Kar, R. K. (2024). An idea to explore: cultivating the art of proposal writing among graduate students. *Biochem. Mol. Biol. Educ.* 52, 369–372. doi: 10.1002/bmb.21822
- Kirkpatrick, K. J. (2019). Online doctoral students writing for scholarly publication. *Comput. Compos.* 52, 19–36. doi: 10.1016/j.compcom.2019.01.012
- Kumar, S., and Coe, C. (2017). Mentoring and student support in online doctoral programs. *Am. J. Dist. Educ.* 31, 128–142. doi: 10.1080/08923647.2017.1300464
- Larcombe, W., McCosker, A., and O’Loughlin, K. (2007). Supporting education PhD and DEd students to become confident academic writers: an evaluation of thesis writers’ circles. *J. Univ. Teach. and Learn. Pract.* 4, 61–71. doi: 10.53761/1.4.1.6
- Lavelle, E., and Bushrow, K. (2007). Writing approaches of graduate students. *Educ. Psychol.* 27, 807–822. doi: 10.1080/01443410701366001
- Lee, K., Zawacki-Richter, O., and Cefa Sari, B. (2024). A systematic literature review on technology in online doctoral education. *Stud. Cont. Educ.* 46, 38–64. doi: 10.1080/0158037X.2022.2135499
- Lim, J., Covrig, D., Freed, S., De Oliveira, B., Ongo, M., and Newman, I. (2019). Strategies to assist distance doctoral students in completing their dissertations. *IRRODL* 20, 192–210. doi: 10.19173/irrodl.v20i5.4532
- Makhamreh, M. A., and Kutsyuruba, B. (2021). The role of trust in doctoral student-supervisor relationships in Canadian universities: the students’ lived experiences and perspectives. *J. High. Educ. Theory Pract.* 21, 124–138.
- Maldonado, L. G., Dolfi, J. J., Bartlett, J. E., and Bartlett, M. E. (2021). Forward momentum: providing supportive space for EdD students’ dissertation progression through weekly online writing sessions. *Impact. Educ.* 6, 13–20. doi: 10.5195/ie.2021.186
- Merriam, S., and Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation*. 4th Edn. Hoboken, NJ: Jossey Bass.
- Miller, E. M., Porter, J. E., and Barbagallo, M. S. (2023). Simplifying qualitative case study research methodology: a step-by-step guide using a palliative care example. *Qual. Rep.* 28, 2363–2379. doi: 10.46743/2160-3715/2023.6478
- Naidoo, K., Quaynor, L., and Shen, Y. (2023). Doctoral students’ experiences, self-efficacy, and sense of belonging related to academic writing in an online program. *Educ. Sci.* 13, 1–22. doi: 10.3390/educsci13111097
- Ondrusek, A. L. (2012). What the research reveals about graduate students’ writing skills: a literature review. *J. Educ. Lib. Info. Sci.* 53, 176–188.
- Oxford English Dictionary. (2024) Trust. Available at: https://www.oed.com/dictionary/trust_n?tab=meaning_and_use#17393047 (Accessed 12 September, 2024).
- Polkinghorne, M., Taylor, J., Knight, F., and Stewart, N. (2023). Doctoral supervision: a best practice review. *Encyclopedia* 3, 46–59. doi: 10.3390/encyclopedia3010004
- Roos, L., Löfström, E., and Remmik, M. (2021). Individual and structural challenges in doctoral education: an ethical perspective. *Int. J. Doc. Stud.* 16, 211–236. doi: 10.28945/4738
- Sadler, I., Reimann, N., and Sambell, K. (2022). Feedforward practices: a systematic review of the literature. *Assess. Eval. High. Educ.* 48, 305–320. doi: 10.1080/02602938.2022.2073434
- Saldaña, J. (2021). *The coding manual for qualitative researchers*. Thousand Oaks, CA: SAGE.
- Sarnecka, B. W., Silva, P. N., Coon, J., Vickers, D. C., Goldstein, R. B., and Roudier, J. N. (2022). Doctoral writing workshops: a pre-registered, randomized controlled trial. *Innov. High. Educ.* 47, 155–174. doi: 10.1007/s10755-021-09574-6
- Simpson, S. (2012). The problem of graduate-level writing support: building a cross-campus graduate writing initiative. *WPA* 36, 95–118.
- Stevens, D., and Caskey, M. M. (2023). Building a foundation for a successful doctoral student journey: a scholarship of teaching and learning investigation. *Innov. High. Educ.* 48, 433–455. doi: 10.1007/s10755-022-09624-7
- Wei, J., Carter, S., and Laurs, D. (2019). Handling the loss of innocence: first-time exchange of writing and feedback in doctoral supervision. *High. Educ. Res. Dev.* 38, 157–169. doi: 10.1080/07294360.2018.1541074
- Wikeley, F., and Muschamp, Y. (2004). Pedagogical implications of working with doctoral students at a distance. *Distance Educ.* 25, 125–142. doi: 10.1080/0158791042000212495
- Winberg, C., Dippenaar, H., Engel-Hills, P., and Phillips, H. (2023). Writing together alone: digitally connected ‘snack writing’ for progressing academic writing. *Read. Write. J. Read. Assoc. SA* 14:414. doi: 10.4102/rw.v14i1.414
- Yin, R. K. (2018). *Case study research: Design and methods*. 6th Edn. Thousand Oaks, CA: SAGE.
- Zimmer, W. K., Chang, C. N., Semma, B. M., and Fowler, D. (2022). Developing graduate writing habits and skills: establishing writing sessions with STEM graduate students. *Coll. Teach.* 70, 133–144. doi: 10.1080/87567555.2021.1909524