

EXAMINING CANADIAN GRADUATE STUDENTS' VIEWS ON IDEAL SUPERVISION: A QUALITATIVE CODING APPROACH

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Abstract

Research highlights academic, mentoring, and personal characteristics students associate with ideal supervision. The Graduate Student Experience Survey (GSES) invited graduate students from all disciplines to share their views on the qualities and characteristics of ideal supervision. The quantity and diversity responses posed a challenge: How can we systematically analyze textual data from diverse graduate students across campus? In this article, we describe the creation and application of a qualitative coding framework—a systematic method for categorizing and coding textual data—to synthesize 824 student responses to an open-ended survey question. We administered the GSES in 2022 and 2023 and conducted a quantitative content analysis and qualitative interpretation of 993 data extracts. Findings are organized into five categories: personal characteristics, teaching/mentoring, relational trust, professional support, and academic support. This deductive approach to qualitative analysis enabled us to identify trends and patterns in the traits graduate students most frequently associated with ideal supervision. These findings have practical applications: researchers can adapt the qualitative coding framework to analyze textual data, graduate students can use findings to identify suitable supervisors, and university leadership can leverage findings to improve supervisory development.

Keywords: Canadian graduate students, graduate education, supervision, qualitative research, coding framework

Résumé

Cette recherche met en évidence diverses caractéristiques académiques, relatives au mentorat et personnelles que les étudiants associent à une supervision idéale. L'Enquête sur l'expérience des étudiants diplômés (GSES) a invité les étudiants à la maîtrise et au doctorat de toutes les disciplines à donner leur point de vue sur les qualités et les caractéristiques d'une supervision idéale. La quantité et la diversité des réponses ont posé un défi : comment analyser systématiquement les données textuelles des étudiants diplômés de l'ensemble du campus? Dans cet article, nous décrivons la création et l'application d'un cadre de codage qualitatif – une méthode systématique de catégorisation et de codage des données textuelles – pour synthétiser les réponses des étudiants à une question d'enquête ouverte. À l'aide de

993 extraits de 824 réponses au GSES obtenues en 2022 et 2023, nous avons réalisé une analyse quantitative du contenu et une interprétation qualitative en organisant les réponses en cinq catégories : caractéristiques personnelles, enseignement/mentorat, confiance relationnelle, soutien professionnel et soutien académique. Cette approche déductive de l'analyse qualitative nous a permis d'identifier des tendances et des modèles dans les traits que les étudiants diplômés associent le plus souvent à une supervision idéale. Ces résultats ont des applications pratiques : les chercheurs peuvent adapter le cadre de codage qualitatif pour analyser les données textuelles, les étudiants diplômés peuvent l'utiliser pour identifier les superviseurs appropriés, et les gestionnaires universitaires peuvent l'utiliser pour améliorer la supervision offerte.

Mots-clés : Étudiants diplômés au Canada; enseignement aux cycles supérieurs; supervision; recherche qualitative; cadre de codage

INTRODUCTION

Pursuing a graduate degree involves a rigorous academic journey, one that culminates in completing coursework, a project, a thesis, or a dissertation under the guidance of a faculty supervisor. Extensive research indicates that successful completion of a graduate degree and graduate student attrition are both connected to the quality of supervision offered (Azure, 2016; Beaudin et al., 2016; Börgeson et al., 2021; Erichsen et al., 2014; Kis et al., 2022; Kreber & Wealer, 2023; Millin et al., 2022). When we evaluate the quality and characteristics of quality supervision, the question arises, do we consult supervisors or students? The obvious answer is both. Much research attention has been given to understanding the mentoring or advising qualities of effective supervisors (Berdahl et al., 2022; Friesen et al., 2022; Holdaway et al., 1995) and their intentions (Kreber & Wealer, 2023). For example, a decades-old Canadian study in this very journal examined practices that supervisors rated as most important in assisting students to successfully complete a thesis and pass the final oral examination in a timely manner, including providing feedback, balancing direction with student autonomy, regular meetings, disciplinary and methodological expertise, project management, scaffolding regular progress, and providing a handbook on processes and regulations (Holdaway et al., 1995). Recently, Berada and Halton (2023) captured insights from award-winning Canadian supervisors on what

they consider best practices, such as promoting peer mentoring in the lab, treating each student as unique, and cultivating collegiality with students. However, “the students’ voice remains an aspect relatively underexplored in postgraduate research education” (Odena & Burgess, 2017, p. 575), especially in Canada, where few studies have delved into students’ views on high-quality supervision. Therefore, in this study, our goal was to gather and report on contemporary Canadian graduate students’ perspectives on characteristics of ideal supervision.

Student Perspectives on Ideal Supervision

When students’ voices are sought, studies generally reveal most students are satisfied with the supervision they receive (Azure, 2016; Beaudin et al., 2016; Erichsen et al., 2014; Molassiotis et al., 2020). Graduate students who spend more time each week engaging in their research and meeting with supervisors report higher satisfaction levels (Harman, 2003). A global survey of 5,700 PhD students revealed that strong mentorship and goodness-of-fit between supervisor and student were the main factors driving satisfaction in a doctoral program (Woolston, 2017).

Bastalich and McCulloch (2024) solicited metaphoric descriptions of ideal supervision from newly inducted doctoral students. Many students described the ideal supervisor using omniscient terms:

They can 'play any role', 'answer any question', 'do any job for me', 'play all sides', 'solve any problem', and 'provide guidance from many fields'. Students described supervisors as a 'guru', who 'read minds easily', 'know everything' or 'always know what to do', and even 'once played God'. (Bastalich & McCulloch, 2024, p. 587)

Our research aims to extend Davis's (2019) finding that the ideal supervisor respects students' endeavours, and has "time for them, offers guidance re the research process and knows what is required for success" (p. 450).

Global Perspectives on Supervisor Characteristics

Research on students' perceptions of ideal supervision are available across global contexts. In Sweden, a study with medical and biomedical students revealed "40% expressed the wish to have received more encouragement, contact and empathy, as well as support with mental health issues" (Börgeson et al., 2021, p. 8). Studying dissertation writing experiences of American doctoral students, Ciampa and Wolfe (2019) found satisfaction correlated with "timeliness, quality and quantity of feedback provided by faculty and dissertation committees" (p. 94). Across 12 Russian universities, the highest levels of satisfaction were found among students whose supervisor met the "superhero" criteria, described as "supervisors who showed the highest level of engagement in a PhD student's work" (Gruzdev et al., 2020, p. 780), or "mentor," those who "usually execute more functions related to the navigation in the academic world" (p. 781). A study with 125 graduate students in Ghana found that the three most important sets of supervisor attributes were a sense of friendliness, openness, and flexibility; being knowledgeable and resourceful; and encouraging students to plan and work independently (Azure, 2016). In the United Kingdom, researchers found that academic writing development requires three indispensable supervision elements: tailored and supportive feedback, resili-

ence and organization, and a support network (Odena & Burgess, 2017).

In a study from Pakistan, Saleem and Mehmood (2018) found "there are some hallmarks of most successful supervision relationships including; [sic] good communication, agreed standards, professionalism, consideration of the needs of the other party and ethical behavior" (p. 10). Australian graduate students indicated that mindfulness and supportiveness characterize the ideal supervisor (Buirski, 2022; Davis, 2020).

Canadian Research on Quality Supervision

National research on quality supervision, conducted over several years, explores both student and supervisor perspectives. A classic study with 736 experienced doctoral supervisors from 37 Canadian universities highlighted the importance of the student-supervisor relationship (Holdaway et al., 1995). McAlpine and Amundsen (2012) collected data from 40 students and 20 pre-tenure academics in a study to challenge common assumptions in doctoral education. While supervisors were found to play a key role, they learned that doctoral students often seek support beyond their supervisors, turning to peers, family, and other academics for additional guidance. Students describe ideal supervisors as those who provide academic support: "supervisors are often directive: providing information related to successful completion of the dissertation or other institutional requirements" (McAlpine & Amundsen, 2012, p. 686). In a mixed methods study, Beaudin et al. (2016) surveyed postgraduate dental research students at McGill using questions categorized across five domains. Though their sample size was small, Beaudin et al.'s findings indicate that while students report being satisfied overall with supervision, they emphasized the importance of regular interactions with supervisors and their need for ongoing support and encouragement. Students identified effective communication and progress tracking as crucial in preventing conflicts and ensuring students understand the requirements for graduation. While doctoral stu-

dents reported increased career development as they neared graduation, master's students said they lacked guidance in this area and wanted more early career planning resources.

More recently, Friesen et al. (2022) extended understanding of the supervisor–supervisee relationship with a case study of doctoral students and supervisors in an online doctoral program in Canada. Like Holdaway et al. (1995), their findings underscored the importance of the supervisor–supervisee relationship, with Friesen et al. (2022) recommending supervisors take the initiative to cultivate and nurture relational trust with students in leading online supervisory relationships.

How students and supervisors approach the student–supervisor relationship will shape it, but we know relatively little about how students who are at the start of their graduate degrees anticipate the supervision experience prior to experiencing it (Bastalich & McCulloch, 2024). This research aims to expand understanding of students' early graduate program experiences, given that most of our survey respondents (58% in 2022 and 68% in 2023) were first- and

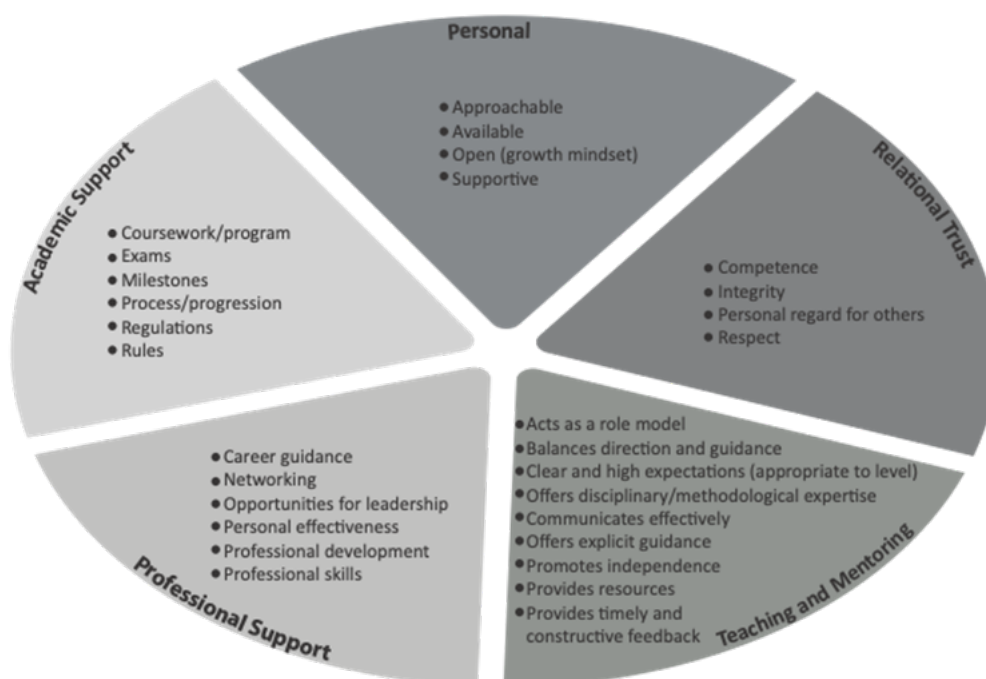
second-year students across master's and doctoral thesis-based programs.

DEVELOPING A QUALITATIVE CODING FRAMEWORK WITH FIVE CATEGORIES

Our development of the qualitative data coding framework for characteristics of ideal supervision was informed by our prior review of research on the characteristics of ideal supervision. We synthesized diverse ideas and findings on ideal supervision from across studies and organized these characteristics into five categories (Barnes et al., 2010; Friesen et al., 2022; Jacobsen et al., 2021; Torrington Eaton et al., 2022): Personal, Teaching and Mentoring, Relational Trust, Professional Support, and Academic Support. In the sections that follow, we describe the five research-informed categories along with the codes we used to further define each category in the framework (Figure 1).

Figure 1

Five Categories of Ideal Supervision with Associated Characteristics (Codes)



Personal Characteristics Category

In developing this category, we drew upon Torrington Eaton et al.'s (2022) coding scheme for characteristics of effective clinical supervision, which included availability, approachability, openness, and supportiveness, to test for resonance with responses from Canadian graduate students. In a further elaboration on personal characteristics, Torrington Eaton et al. (2022) emphasized the importance of supervisors "building up, versus tearing down" (p. 7). The development of the personal characteristics category is supported by research on positive aspects of ideal supervision, including being accessible, being helpful, socializing, and caring (Barnes et al., 2010). Findings from Australian research conducted in 15 universities indicated that dominant qualities of ideal supervision include "caring, empathetic, encouraging, understanding, approachable, gregarious, flexible, helpful, down to earth, passionate, patient, very capable, fair-minded, generous, [and] trustworthy" (Davis, 2020, p. 1229), which align well with the personal characteristics category, and relate with the personal regard code in the relational trust category. Availability is associated with "meetings on a regular basis and constructive support from the supervisor" (Cornér et al., 2017, p. 103).

Teaching and Mentoring Characteristics Category

In developing the teaching and mentoring category in the qualitative coding framework, we drew again on Torrington Eaton et al.'s (2022) coding scheme used with textual data from clinical educators and graduate students in speech-language pathology. Drawing from their explicit focus on *teaching*, we added the following codes from Torrington Eaton et al. (2022) to the teaching element in our category: offers explicit guidance, provides resources, provides timely and constructive feedback, balances direction and guidance, promotes independence, and sets clear and high expectations. In contrast to Torrington Eaton et al.'s (2022) coding scheme,

which separated *mentoring* from administrative support, we included communicates effectively, and acts as a role model as codes in our combined teaching and mentoring category.

Relational Trust Characteristics Category

In a Canadian case study of online supervision, Friesen et al. (2022) examined four characteristics of relational trust from the perspectives of supervisors and doctoral graduates engaged in a Doctor of Education (EdD) program. Bryk and Schneider's (2002) theory of relational trust framed the analysis of online doctoral supervisory relationships. Relational trust, expanded through the four discerning elements of respect, competence, personal regard for others, and integrity, offers a useful theoretical frame for describing the extent to which there is consonance between the supervisor's and student's expectations and obligations. Drawing upon Bryk and Schneider (2002), who contend that mutual dependence and personal vulnerabilities characterize social exchanges concerned with relational trust, Friesen et al. (2022) argue that personal regard, integrity, competence, and respect are very important to cultivate in supervisor–student relationships. We adopted Friesen et al.'s (2022) findings on the four discerning elements of relational trust (Figure 1) in developing the relational trust category in our qualitative data coding framework, to test our assumption that graduate students may describe relational trust characteristics when sharing their perspectives on ideal supervision.

Professional Support Category

Here, we developed a category and set of codes to capture a supervisor's guidance for students on their personal effectiveness, career path, support with networking, development of leadership skills, and commitment to students' professional development (Figure 1). We drew upon elements of Nowell et al.'s (2021) professional learning and development framework for post-doctoral scholars with the rationale that prior research emphasized the importance stu-

dents place on career development and professional skill building beyond the thesis. In developing the professional support category, we were informed by the professional skills section of Nowell et al.'s (2021) framework, which includes leadership skills, interpersonal skills, communication skills, and career planning. We applied Nowell et al.'s (2021) finding that preparation in professional skills is imperative for post-doctoral scholars' success in pursuing diverse academic or professional career paths based on our desire to test the assumption that graduate students in our study may describe elements of professional support in responses on ideal supervision.

Academic Support Category

Development of the academic support category (Figure 1) was informed by our university's *Checklist of Expectations for Students and Supervisors*. This required checklist outlines 22 expectations that define and clarify various roles and responsibilities for graduate students and supervisors throughout a program. We selected the six expectations that specifically focused on academic support for students' timely progress and progression and successful coursework and program, supervisor support with key milestones in a research degree, and supervisors' knowledge of rules, regulations, and procedures for exams. The academic support category and codes were also informed by prior research on clinical educator characteristics related to supervisor program knowledge and expertise (Torrington Eaton et al., 2022), and McAlpine and Amundsen's (2012) finding that academic support from supervisors was prioritized by doctoral students.

METHODOLOGY

Survey Instrument

The first four authors conducted an anonymous web-based survey with graduate students in master's and doctoral programs from across disciplines at a large research university in western Canada. The broad study goals were to examine how students describe and rate the char-

acteristics of effective supervision, graduate program, and institutional supports, as well as any barriers and challenges students have encountered during their program. Ethics approval was granted by the University Research Ethics Board. Invitations to participate were distributed in spring of 2022 and spring of 2023, with weekly reminders over a six-week recruitment timeframe. The 55-item Graduate Student Experience Survey (GSES) includes select responses and open-ended textual items. In this article, we report results from our testing of the qualitative coding framework through our analysis of 824 participant responses to the open-ended question "Please provide some characteristics or qualities of what you would consider to be ideal supervision," which we adapted from Torrington Eaton et al.'s (2022) study. Textual data included in this analysis are from participant responses to this open-ended question in spring of 2022 ($n = 478$) and spring of 2023 ($n = 346$).

Survey Administration

A research assistant used Qualtrics for online survey administration and anonymous data collection. All graduate students at the university were invited to participate via an email invitation distributed by the Graduate Students Association, who informed students of the voluntary and anonymous nature of participation. The research team had no direct contact with study participants and did not know who participated in the survey, or not.

RESPONDENTS

Survey participants provided demographic details such as gender, student registration category (domestic, international, Indigenous), Tri-Council field of study (CIHR, NSERC, SSHRC), year of study (1–6+), and degree program. To explore the representation of our sample, the research team compared demographic trends to population-based data from the Faculty of Graduate Studies at this university. The proportions in the 2022/2023 samples of participants aligned within 2–3% with the population with regard to women (2022: 56%; 2023: 59%), domestic stu-

dent registration (56%; 54%), year one students (31–41%), and enrolment in thesis-based master’s degrees (47%). Our 2022 sample had a slightly higher proportion of PhD students (50%) than the population. Our 2022 sample also had a higher proportion of students in NSERC fields of study (45%), while our 2023 sample had a higher proportion of students in SSHRC fields of study (41%) compared to the population in those years. In both years, our survey included respondents from all three Tri-council areas of study, all years of study (1–6+), all types of graduate degrees, and all three student registration categories. These descriptive trends indicate that our survey successfully captured perspectives from a diverse range of graduate students, and we are confident that our sample closely reflects the general composition of the graduate student population at this university.

Data Organization and Preparation

The qualitative data includes the textual responses to the open-ended survey question about characteristics or qualities of ideal supervision. A graduate research assistant organized and anonymized responses using a

spreadsheet. The assistant redacted any identifying data (persons, departments, disciplines, faculties, etc). We kept a tally to account for the type of non-responses removed prior to analysis (e.g., 29 responses in 2022 and 26 responses in 2023 were written in the negative, or flipped, as “does not do this” or “is not like this,” or used “N/A” and “none” as a response). Length of responses ranged from 2–74 words, with most responses in the three- to five-word range. Some responses contained one idea or characteristic, with others containing several ideas or characteristics. To prepare textual data for categorization and coding, we separated multiple lines or lengthy responses into meaningful extracts, with the aim of limiting extracts to containing up to two ideas or characteristics and thus being applicable in one or two possible categories. Two members of the research team reviewed each survey response and then divided lengthier ones into extracts of a size suitable for categorization. Preparing textual data for coding resulted in more extracts than responses, which is noted for both years of the survey (Table 1), along with the number of categories assigned in the quantitative content analysis.

Table 1
Textual Responses, Qualitative Extracts, and Assigned Categories by Survey Year

Survey Year	Number of Textual Responses	Number of Qualitative Extracts	Number of Categories Assigned
2022	478	490	942
2023	346	503	811
Total	824	993	1,753

Quantitative Content Analysis

We reviewed each extract's content prior to assigning it either one or two of the five categories from the qualitative coding framework (a maximum of two per extract). The first category was selected to reflect the first characteristic in an extract. Within the category, a code was then selected for each of the extracts. If a second category was applicable to the extract, the process was repeated. Two researchers independently categorized and then coded each extract and made notes of any interpretation or categorization that was unclear or uncertain. The researchers engaged in several discussions to calibrate consistency in applying the qualitative coding framework (Hayes et al., 2015) and to come to a consensus on any flagged extracts. This process of reviewing, coding, and addressing inconsistencies or uncertainties was undertaken to strengthen interrater reliability and to achieve consensus in applying the categories and codes. Qualitative judgements were made to categorize extracts that may have overlapped into more than one category or even fit in the same category with different codes. In the discussion of findings that follows, data extracts

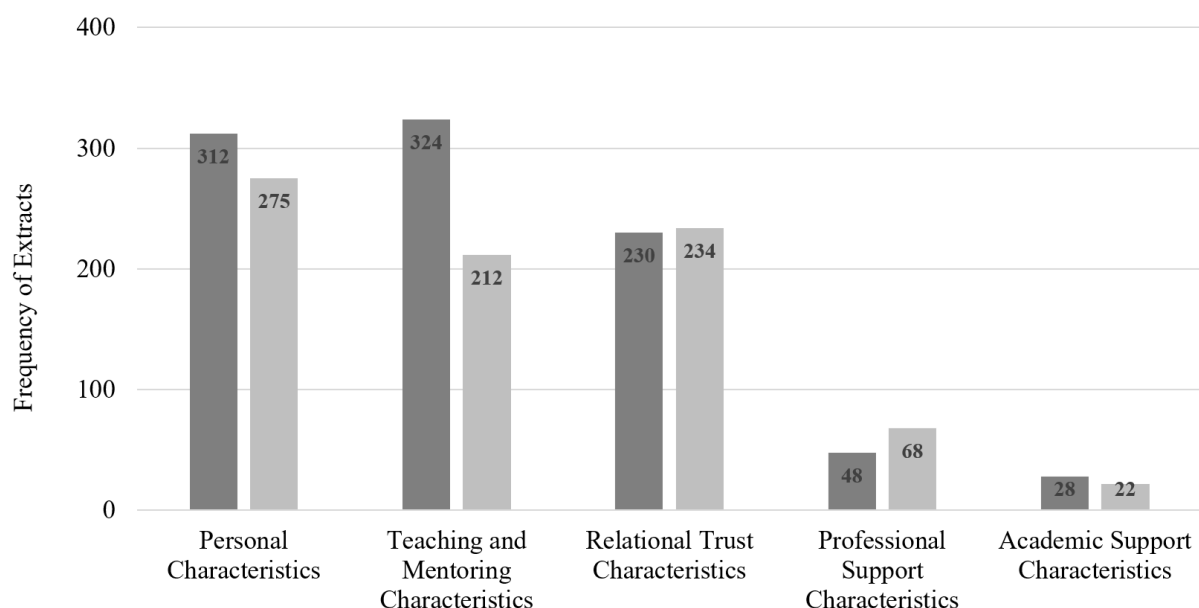
are included in each section to illustrate student perspectives on ideal supervision, and to provide verbatim descriptions from the data that demonstrates how our interpretations within and across categories are supported by data (Eldh et al., 2020).

FINDINGS

Our qualitative analysis of 993 data extracts from 2022 and 2023 using the five categories of ideal supervision in our qualitative coding framework resulted in 1,753 category assignments (Table 1). Our analysis reveals that the three categories most frequently assigned to the combined data extracts from 2022 and 2023 are personal characteristics (rank 1, 587 extracts), teaching and mentoring characteristics (rank 2, 536 extracts), and relational trust characteristics (rank 3, 464 extracts), followed by professional support characteristics (rank 4, 116 extracts) and academic support characteristics (rank 5, 50 extracts) (see Figure 2). We interpret and explain further each of the categories and associated codes in subsequent sections.

Figure 2

Frequency and Percentage of Extracts by Ideal Supervision Categories by Survey Year



Rank 1: Personal Characteristics

Personal characteristics were the most frequently assigned category across the combined data sets, being the second most frequently assigned category in the 2022 survey (312/942 categories, 33.1%), and the most frequently assigned category in 2023 (275/811 categories, 33.9%) (see Figure 2). Assignment of codes within the personal characteristics category (Figure 3) resulted in the “supportive” code being used most frequently, representing 66.3% of codes in 2022 and 74.2% in 2023.

Combining results from the 2022 and 2023 extracts in the personal characteristics category, the extracts were coded using “supportive” ($n = 411$) most frequently, followed by “available” ($n = 76$), “approachable” ($n = 60$), then “open” ($n = 40$). One student’s entire response included several ideas about the personal characteristics present in ideal supervision: “Supportive; high expectations for quality, yet realistic about quantity; has the time available to support the number of graduate students presently under

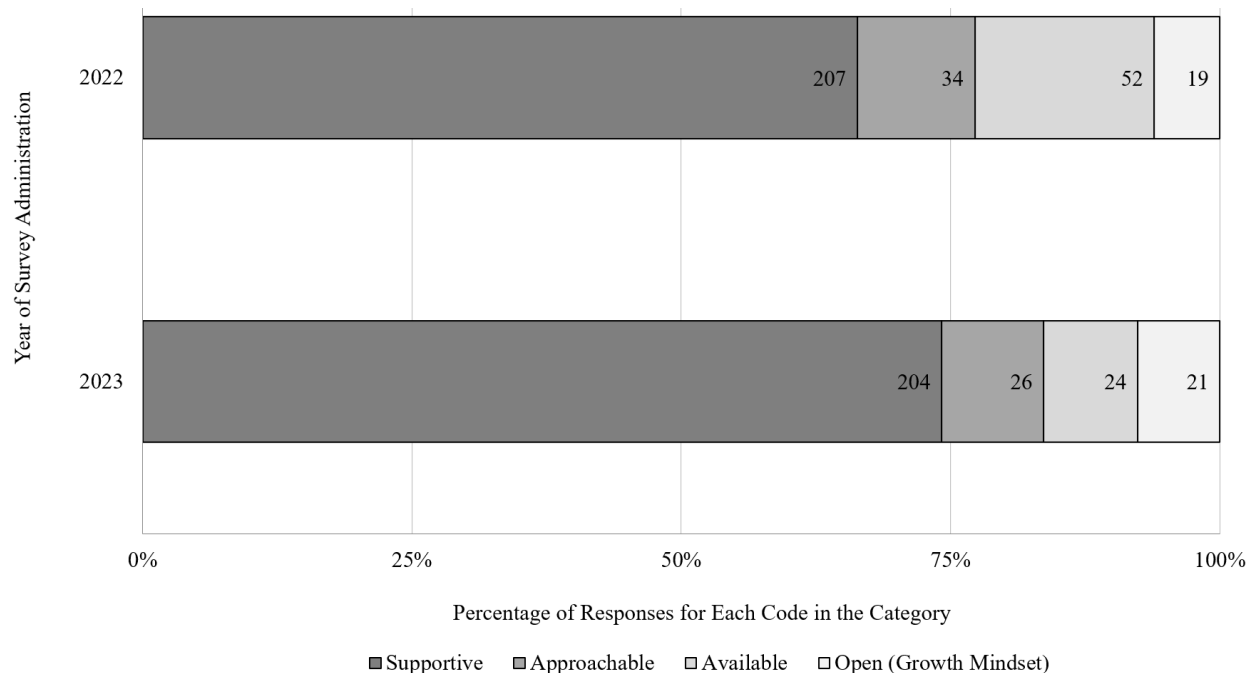
supervision; supportive of different long-term career goals” (2022 survey). Another student’s response contained several characteristics of support:

To feel that your supervisor is going to be on your side no matter what and that they are your ally, that they will make an effort to understand your perception and help you develop your ideas in the best possible way, especially if English is not your L1. For me, as an international student, my supervisor is the link between the Canadian academic world that I am not so familiar with, and myself. (2023 survey)

Several qualities that were commonly coded as “supportive” indicate that an ideal supervisor reflects: being on your side no matter what, understanding your point of view, helping you to develop ideas in the best possible way, and linking to the Canadian academic world.

Figure 3

Frequency and Percentage of Coded Extracts in the Personal Characteristics Category

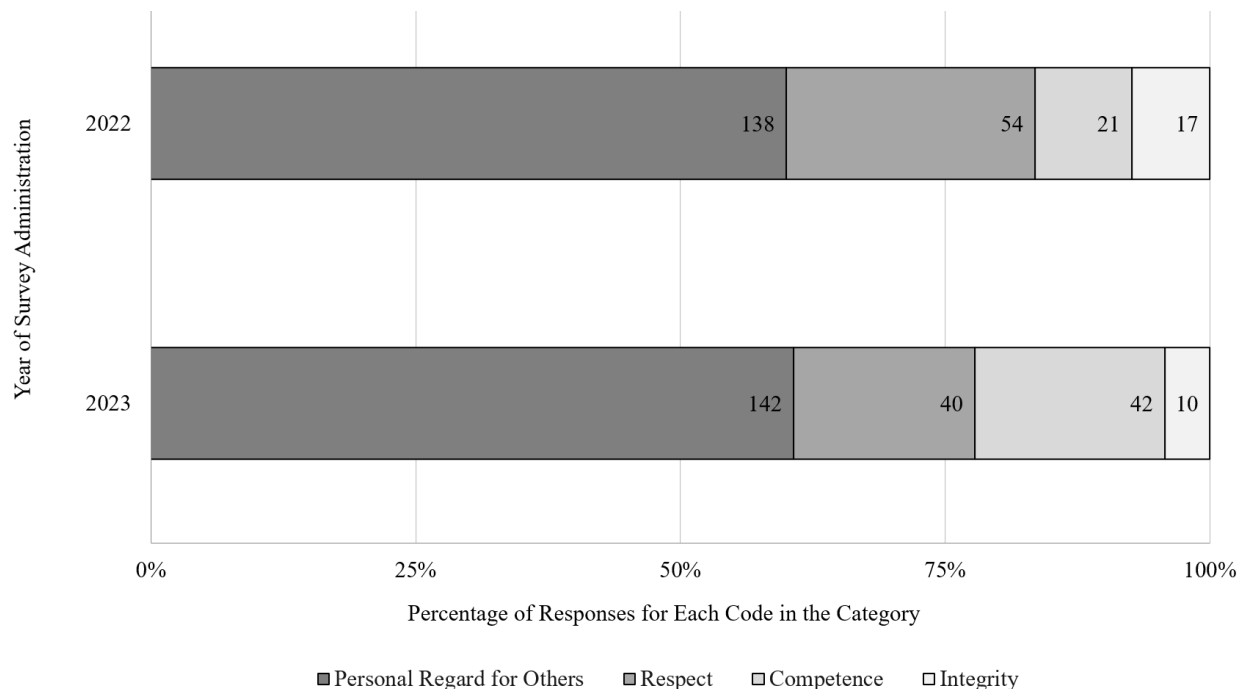


Rank 2: Relational Trust Characteristics

Relational trust characteristics were the category assigned second ($n = 234$ in 2023) and third ($n = 230$ in 2022) most frequently (Figure 4). Approximately 60% of extracts in this category were coded “personal regard for others” ($n = 138$ in 2022; $n = 142$ in 2023), followed by “respect” (23% in 2022; 17% in 2023), “competence” (9% in 2022; 18% in 2023), and “integrity” (7% in 2022; 4% in 2023). Personal regard for others captures students’ perception that their supervisor cares about them and is willing to extend themselves beyond the formal role in any situation, while respect captures the reciprocity and mutual dependencies present in student–supervisor relationships. Competence reflects the supervisor’s ability, disposition, and expertise to guide and support student research, while integrity is consistency between what a supervisor says and what they do, and the belief that the supervisor will do what is necessary to ensure a student’s progress.

Key characteristics from extracts categorized as relational trust in student responses include: considerate of students’ mental health, provides encouragement, displays a genuine interest, empathetic mentoring, and creates a respectful learning environment. One participant wrote that an ideal supervisor displayed “an invested interest in students’ progress/well-being, clear and frequent communication (through email/other as well as in-person where possible)” (2022 survey). A full response that identified personal regard through mental health is captured in the supervisor being “considerate of my mental health and workload, gives encouraging feedback, and knows when to stop the critique” (2023 survey).

Figure 4
Frequency and Percentage of Coded Extracts in the Relational Trust Characteristics Category



Rank 3: Teaching and Mentoring Characteristics

Teaching and mentoring characteristics were the most frequently applied category to data from the 2022 survey ($n = 324$ extracts) and the third most frequently applied to the 2023 data ($n = 212$ extracts; see Figure 5).

The top four most frequently assigned codes using combined results from 2022 and 2023 in the teaching and mentoring characteristics category are “communicates effectively” (130 extracts), “offers disciplinary/methodological expertise” (113 extracts), “balances direction and guidance” (85 extracts), and “provides timely and constructive feedback” (81 extracts); however, the order of the four codes varies within each survey year. Combined for both years, “acts as a role model” extracts were coded the fifth most frequently assigned (36 extracts), followed by “sets clear and high expectations” (28 extracts), “promotes independence” (26 extracts), “offers explicit guidance” (21 extracts), and lastly, “provides resources” (16 extracts).

Descriptions of teaching and mentoring characteristics that were coded frequently in participant responses include being a good listener; respecting student autonomy while

providing guidance; effectively conveying instructions, expectations, and feedback; and encouraging open dialogue. Quoting from two participant responses, ideal supervision is “effective and respectful communication and reasonable expectations” (2022 survey), and ideally, “the supervisor should possess excellent communication skills and be able to convey instructions, expectations, and feedback effectively, and listen attentively to their supervisees and encourage open dialogue” (2023 survey).

Rank 4: Professional Support Characteristics

This category was applied fourth most frequently across extracts from both survey years (Figure 2) and accounted for 5% of extracts in 2022 and 8% of 2023 extracts. The three most frequently applied codes, although in slightly different orders of frequency (see Figure 6) included “professional development” (most frequent in both years, $n = 46$), “personal effectiveness” ($n = 26$), and “networking” ($n = 24$). Codes used less frequently in this category were “career guidance” ($n = 12$), “professional skills” ($n = 9$), and “opportunities for leadership” ($n = 8$).

Figure 5

Frequency and Percentage of Coded Extracts in the Teaching and Mentoring Characteristics Category

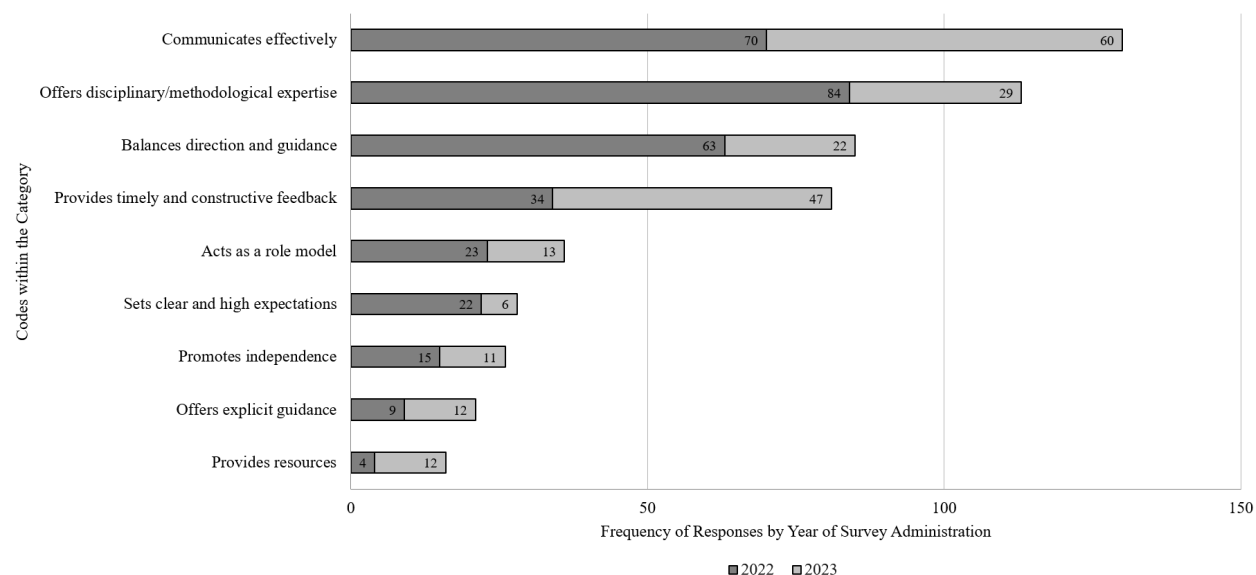
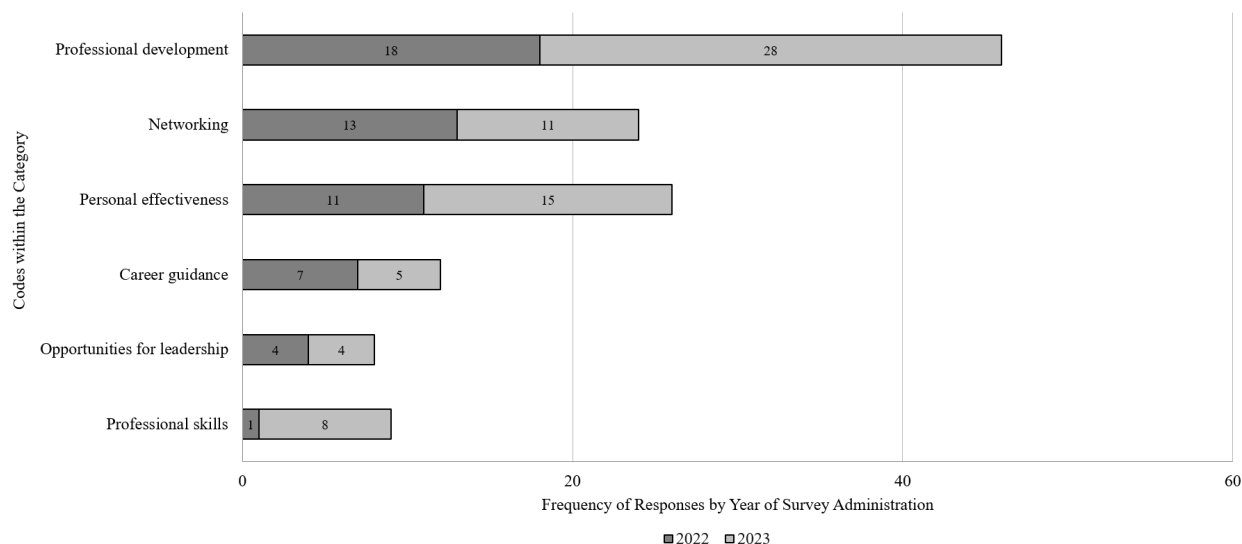


Figure 6

Frequency and Percentage of Coded Extracts in the Professional Support Characteristics Category



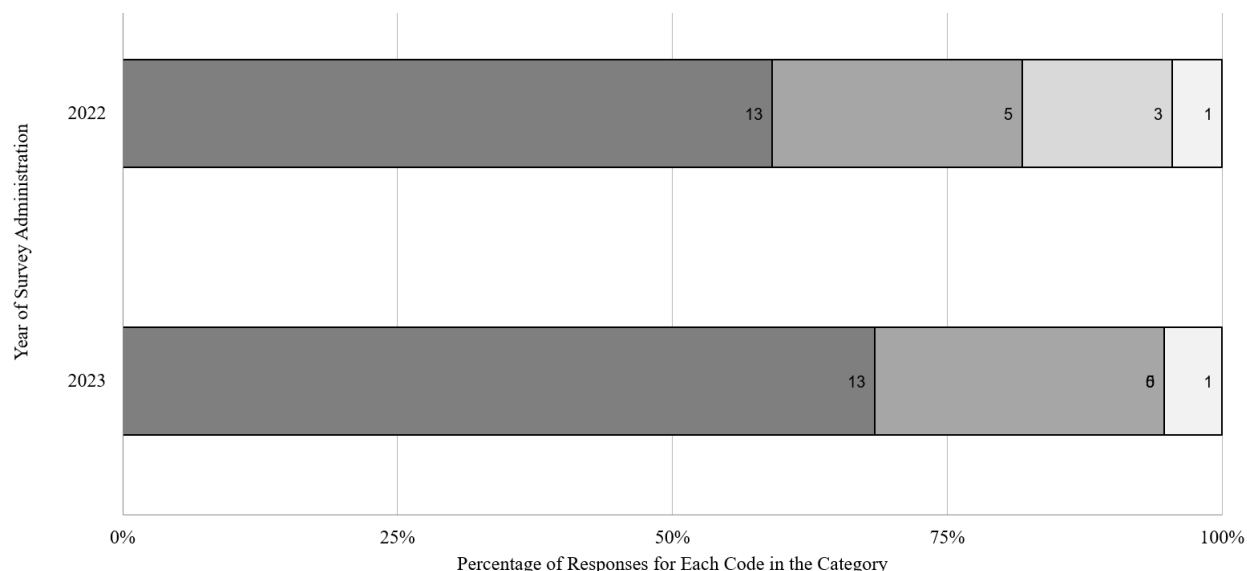
Key characteristics of professional support include the supervisor supporting a student's passion for research, discussing and suggesting opportunities for further career development, connecting students with other scholars and experts, opening doors for new leadership opportunities, and not acting as a gatekeeper. Two responses from 2023 that illustrate how ideal supervision involves professional support include a supervisor that "supports their student's passion for research, discusses opportunities for development, connects them with someone to teach them different techniques," and "opens doors for various opportunities and does not gatekeep from other research opportunities with others within the program."

Rank 5: Academic Support Characteristics

Academic support characteristics were the least frequently applied category to extracts from both years of the survey and represent 4% of extracts in each year. Within the academic support category, the most frequently coded aspect was process/progression, representing 59% of extracts in this category in 2022 and 68% in 2023 (Figure 7).

Key characteristics of academic support include a supervisor being knowledgeable about their student's research and progress, being knowledgeable about program requirements and institutional processes, acting in a timely manner to provide relevant advice on procedures, and not delaying a student's progression through their degree. A respondent wrote that ideal supervision is "to feel [they] know program requirements, [and are] familiar with student's research and progress" (2023 survey). In another response, a participant offered that ideal supervisors hold a "deep-set knowledge of the institution and how to work towards an aggressive timeline" (2023 survey). Finally, one response captures several aspects of academic support, stating that being an ideal supervisor involves "helping me to understand the process behind graduate research and helping me to break down large tasks into smaller, manageable objectives so that my progress can be evaluated" (2022 survey).

Figure 7
Frequency and Percentage of Coded Extracts in the Academic Support Characteristics Category



DISCUSSION

It is important to consult students on the quality of graduate supervision and what they consider ideal in a supervisor. In this article, we describe our rationale and the approach we undertook to develop and apply a research-informed, qualitative coding framework to synthesize a large textual dataset of graduate student perspectives on the characteristics and qualities of ideal supervision. We used our new qualitative coding framework to categorize and then code 993 extracts from the 2022 and 2023 survey data, and learned that several characteristics and qualities of ideal supervision as described in other studies were also prevalent in the textual responses we gathered from graduate students. In the sections that follow, we review each category of ideal supervision to compare our coded findings with the extant research, including the studies we drew upon to develop the five categories and related codes. We compare whether and how the qualitative coding framework offered a useful approach in analyzing and generating meaning from the large set of 2022 and 2023 textual responses from Canadian graduate students on categories and qualities of ideal supervision.

Personal Characteristics (#1 in 2023, #2 in 2022, see Figure 2)

The personal characteristics category, based on Torrington Eaton et al.'s (2022) research on clinical supervision, aligned with many graduate student responses in our study. Like their American counterparts (Torrington Eaton et al., 2022), Canadian graduate student responses prioritized the personal characteristics when describing ideal supervision in the 2023 survey (312 extracts, 34% of total), a trend that was captured as the second-highest priority for students in 2022 (312 extracts, 33% of total). In both years (Figure 3), we coded “supportive” most frequently, with “available” coded more frequently in 2022 than in 2023, and “open (growth mindset)” coded more frequently in 2023. This finding aligns with survey results with Australian graduate students across 15 universities, which indicated high value for the interpersonal qualities of a supervisor over disciplinary or research expertise (Davis, 2020), along with findings that Finnish graduate students who reported receiving both informational and emotional support were satisfied with supervision overall (Cornér et al., 2017). Person-related characteristics of being supportive, available, and approachable

were prevalent in graduate student responses, which echoes prior research on students' preferences for the personal in supervision (Azure, 2016; Barnes et al., 2010; Davis, 2019) and highlights that availability is key (Beaudin et al., 2016; Harman, 2003; Kis et al., 2022), which aligns with a highly coded characteristic, available, in this category.

Teaching and Mentoring Characteristics (#1 in 2022, #3 in 2023, see Figure 2)

Across two years of data, the most frequently applied code in the teaching and mentoring category was “communicates effectively,” with the second most frequently applied code being “offers disciplinary/methodological expertise.” Close in number over the two years of data were “balances direction and guidance” and “provides timely and constructive feedback.” Providing timely and constructive feedback is well supported in supervision research. A supervisor's willingness to make themselves available for student consultations, combined with their adeptness at giving constructive feedback, promotes research productivity (Millin et al., 2022). In research on graduate students' perspectives, providing constructive feedback is cited as one of the most important and meaningful tasks of the research supervisor (Neupane Bastola & Hu, 2020). Ciampa and Wolfe (2019) found doctoral students' satisfaction with dissertation writing experiences correlated with “timeliness, quality, and quantity of feedback provided by faculty and dissertation committees” (p. 94), and that students prefer “feedback that was constructive, specific and gave detailed direction and strategies for future improvement such as developing and organizing ideas” (p. 95).

Relational Trust Characteristics (#2 in 2023, #3 in 2022, see Figure 2)

In prior research, Friesen et al.'s (2022) four key findings emphasized the importance of cultivating all four elements of relational trust in stu-

dent-supervisor relationships. Among these, respect and personal regard were particularly significant, which is well correlated with our findings. Building trust requires early relationship development with clear, shared expectations, and it is sustained through frequent, flexible, and responsive online communication throughout the doctoral journey (Friesen et al., 2022). In our analysis of data using the relational trust category, we identified and coded the characteristic of personal regard for others most frequently, followed by respect, in both years of the survey. Our results align closely with Friesen et al.'s (2022) findings, which provide strong support for including the relational trust characteristics category and four codes in our qualitative coding framework. Our findings on relational trust also align with prior research that indicates ideal supervision will “encompass both cognitive and affective dimensions” (Davis, 2019, p. 446), such as the ethic of care being cited as essential (Barnes et al., 2010).

Professional Support Characteristics (#4 in 2022, #4 in 2023, see Figure 2)

Within the professional support characteristics category, all six coded characteristics in our framework were relevant in coding and demonstrated that students expect a range of professional supports from an ideal supervisor. In prior research, Nowell et al. (2021) identified the importance of networking and professional skills as “cornerstone[s] of professional socialization” (p. 6) for post-doctoral scholars. Given that these skills are essential in graduate students' identified career goals, it was not surprising that professional development and networking were among the most frequently coded characteristics of professional support. Research suggests that doctoral students at Russian universities were most satisfied by supervisors that were categorized as “superheroes” and “mentors” (Gruzdev et al., 2020, p. 781), and that “the prevalence of categories of supervisors differs significantly depending on the year of study...[and] on the field of study” (p. 781). When reviewing the results

of our survey, the lower frequency of responses that aligned with professional support characteristics may be impacted by the demographics of our participants who were predominantly in year one or year two of their programs. Beaudin et al. (2016) reported that doctoral students reported increased desire for career development as they approached graduation. In their professional learning and development framework, Nowell et al. (2021) depict connections between various subdomains. While graduate students' perspectives were coded less frequently in this category, professional support characteristics may be more connected to the high frequency code "personal regard for others" in capturing the supervisor characteristics of professional development and networking.

Academic Support Characteristics (#5 in 2022, #5 in 2023, see Figure 2)

We developed the academic support characteristics category based on our institution's student-supervisory checklist, which is a contract that supervisors are required to complete with students early in their degree program. In contrast to participants in McAlpine and Amundsen's (2012) study, who prioritized the academic information supervisors provide on institutional requirements, we found academic support was the least-mentioned category by students in both years of our survey. Graduate students in Davis's (2019) study indicated that ideal supervisors know the academic requirements for success. In the 41 coded extracts in this category, graduate students mentioned several types of academic support, ranked from highest to lowest, as progress/progression, milestones, coursework/program, and regulations. Two codes were not applicable to responses in our data, "exams" and "rules," which may be explained by the large proportion of first- and second-year students in our sample. Finally, the frequency of "progress/progression" extracts aligns with Beaudin et al.'s (2016) finding that progress tracking was important for graduate students' timely completion.

CONTRIBUTION

Our study findings demonstrate that graduate students from across disciplines have many expectations for ideal supervision. When we sought their perspectives, most of the graduate students we surveyed highlighted the personal and relational trust characteristics and qualities of ideal supervision instead of academic characteristics. The characteristics we coded most frequently across five categories were: supportive (personal characteristics category), personal regard for others (relational trust characteristics category), communicates effectively (teaching/mentoring characteristics category), professional development (professional support characteristics category), and progress/progression (academic support characteristics category). While our research suggests all five categories in our framework are relevant to ideal supervision in some combination, we found most graduate students in our sample prioritized the personal and relational trust qualities of a supervisor. A possible explanation for this result is that graduate students have a baseline expectation that all supervisors are competent in providing academic support with coursework and program, guiding progress and progression in the program, setting up exams and achieving milestones, and that faculty know the relevant rules and regulations in graduate studies. Our data indicates that graduate students have an enhanced expectation of the ideal supervisor as a mentor who embodies valued personal qualities, such as being supportive and available, being respectful, and holding genuine personal regard for their mentees. Additionally, ideal supervisors are expected to excel in teaching and mentoring by demonstrating strong communication skills, disciplinary and methodological expertise, and the ability to balance providing guidance with protecting student autonomy, particularly when offering timely and constructive feedback.

Our Canadian research with graduate students from across disciplines offers valuable transdisciplinary perspectives and insights on ideal supervision that complement prior research, given how personal characteristics and teaching and mentoring characteristics were

prioritized. For example, Australian doctoral students listed two preferred supervisory functions as ideal: firstly, acting as a leader, guide, or mentor; and secondly, acting in a personal supporting role (Bastalich & McCulloch, 2024). While existing research suggests institutions and supervisors understand supervision as academic support and project management (including resource provision), socialization into the discipline, mentoring, and personal development (Bastalich & McCulloch, 2024), our research findings align most strongly with personal and mentoring characteristics versus academic dimensions found on institutional checklists. University and program leaders in graduate education can leverage our findings—that students prioritize the personal characteristics of ideal supervision—in offering supervisory development opportunities that extend beyond mastering the rules, regulations, and guidelines and instead emphasize the relational teaching and mentoring practices and high personal regard for others that enhances student-supervisor relationships.

RECOMMENDATIONS

In this study, we accomplished our goal of developing and applying a qualitative coding framework with the large set of textual data we collected from students across disciplines using our Graduate Student Experience Survey. The initial use of the coding framework helped inform our understanding of the strengths and limitations of this approach to analysis and interpretation of textual data and changes needed in the process of content analysis, categorization, and coding. First, we plan to expand our approach of categorizing data extracts. For this first round of analysis, we organized the responses into extracts of a size/length for categorization. We limited categorization of each extract to two different categories; however, we did not categorize any extract using the same category twice. This approach likely led to increased variation in use of categories, but at the cost of reduced interpretive detail by limiting coding within two different categories. Given the prevalence and diversity of terms used to describe ideal supervision in prior research,

we should have anticipated at the outset that a single extract might warrant the same category with different codes within that category. In future applications of the qualitative coding framework, we plan to expand the categorization of an extract to allow for the use of the same category twice to explore the impact on coding frequency and expanded interpretive detail within each category. Second, based on our interpretations of the data, we plan in future research to adjust the codes used to characterize ideal supervision within three of our categories in the qualitative coding framework. Prior to applying the framework with future data, we will remove two unused codes from the academic category (“exams” and “rules”), add an academic integrity code to the relational trust characteristics category, and collapse two codes for related concepts in the professional support characteristics category (“professional skills” and “professional development”). We are curious whether the importance of supervisors “conveying the importance of academic integrity” (Gray & Jordan, 2012, p. 3) with graduate students will be captured in future survey responses.

We contend that student perspectives on ideal supervision as personal and relational need to become more visible in institutional decision making about supervisor orientations and continuous professional development and training of supervisors, to complement the present emphasis on academic characteristics of supervision. Findings can be used to review and update the university’s *Checklist of Expectations for Students and Supervisors* and the associated orientations and training for supervisors. For example, ongoing supervisory development needs to go beyond initial orientations on progression, rules and regulations, and milestones and exams, and emphasize the importance of a supportive supervisor who is a good communicator and demonstrates personal regard for students. Ongoing supervisory development needs to prioritize the personal, relational trust, and teaching and mentoring characteristics of ideal supervision to support supervisors in developing their practice and success in fostering effective relationships with graduate students. Going beyond the basics of

academic characteristics and aspiring to ideal supervisory relationships characterized by enhanced personal connections, relational trust, and teaching and mentoring characteristics for all supervisors will increase student and faculty flourishing and joy in graduate education.

LIMITATIONS

Our study expands understanding of Canadian graduate students' perceptions on characteristics of ideal supervision, yet several limitations must be acknowledged. First, we collected data from graduate students at a single institution, which may limit translatability of results in other universities or contexts. Institutional research culture, resource availability, and graduate education context likely influence student perceptions of supervision, and these factors will vary across institutions. Given the primary goal of developing and applying a qualitative coding framework, we prioritized category and code comparisons, and did not explore the relationships between student characteristics (gender, domestic/international registration, year of study, discipline) and the five categories of ideal supervision in this article. In future analysis and reporting, we plan to explore how and whether conceptions of ideal supervision vary by student demographics and enrolment categories.

Second, while our systematic qualitative coding framework was applied to ensure consistency between two raters, some degree of subjectivity is inherent from this initial application of the framework. Future studies could strengthen the understanding of consistency by explicitly measuring the degree of inter-rater reliability in coding. A future study could track the complexity of qualitative judgements when categorizing extracts using overlapping or related categories and codes. Finally, the responses were drawn from one open-ended survey question, which may have constrained the depth and detail of individual student feedback. While this approach allowed for open participation, it did not capture the complexity of students' own lived experiences with supervision. Despite these limitations, our study offers a strong foundation for expanding understanding of Canadian graduate students' per-

spectives on ideal supervision and contributes a practical coding framework to be used in ongoing research in graduate supervision. Our research prioritizes graduate student perspectives on ideal supervision and adds their voices to Canadian and global conversations about quality graduate education. In future research, it would be interesting to compare graduate student and supervisor ideas and perspectives on ideal supervision at Canadian institutions.

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