Journal of Effective Teaching in Higher Education

Doctoral Students' Help-Seeking Behaviors

Deana Ford, Mercer University, ford_dj@mercer.edu

Abstract. Doctoral students in quantitative methods courses face distinct challenges in developing effective help-seeking behaviors, a critical component of self-regulated learning. These challenges are heightened in hybrid-format courses, where students must navigate both in-person and online environments to find academic support. The purpose of this research study was to determine if doctoral students' help-seeking behaviors coincide with the literature on other learners' help-seeking behaviors. The participants were doctoral students in the Mercer University's Tift College of Education. Qualitative data were collected over 12 weeks using self-reported help-seeking behavior logs. Data were analyzed using a priori coding and general thematic analysis. The results revealed that while doctoral students engaged in help-seeking behaviors similar to those at the elementary and secondary levels, they exhibited more complex, self-regulated strategies, leveraging a combination of informal, online, and formal resources to address advanced academic challenges. Implications suggest doctoral instructors should create a learning environment that is welcoming to help-seeking behaviors (e.g., questions) and provide doctoral students with valid and reliable online resources. The results complement previous research on help-seeking behaviors with K-12 and undergraduate students and provide support for future research that could explore the concepts of anonymity and self-efficacy among doctoral students' help-seeking behaviors.

Keywords: help-seeking; self-regulation; doctoral students.

Self-regulated learning refers to the process through which learners take an active and purposeful role in managing their own studying, learning, or academic engagement (Zimmerman, 2000). Help-seeking behaviors (HSBs) are a component of self-regulated learning because they are a form of behavioral regulation. Students who seek help are self-regulators (Karabenick & Berger, 2013; Karabernick & Knapp, 1991; Martin-Arbos et al., 2021; Zimmerman & Martinez-Pons, 1990). Research has shown that students who seek help to better understand the content or to overcome a specific problem are more motivated and strategic learners (Karabenick & Kapp, 1991; Martin-Arbos et al., 2021). Unfortunately, students that need the most help are the least likely to seek it (Karabenick, 2004; Martin-Arbos et al., 2021). Self-monitoring, a key part of self-regulated learning, is crucial for helping graduate students manage challenging academic situations and seek support effectively (Johnson et al., 2023).

Help-seeking behaviors are important for success in school because they show a student's willingness to ask for help when facing challenges. HSBs, which involve recognizing when help is needed and finding the right resources, look different depending on the age and level of the student. For example, elementary school students often ask teachers or classmates for help when they do not understand something. Teachers who create a supportive environment help younger students

feel more comfortable seeking assistance (Nelson & Fyfe, 2019). In middle school, students' help-seeking depends on how supportive they think their teachers and peers are. Students who want to improve their skills are more likely to ask for help in positive ways (Gonida et al., 2019; Ogan et al., 2015). In contrast, high school students often rely on their confidence and friendships to decide whether or not to ask for help. Students who believe in their abilities are more likely to ask for help when needed, especially in tough subjects like math or science (Lee et al., 2014; Roussel et al., 2011). In college, students use resources like tutoring, online discussion boards, or office hours with professors to get help. Their motivation and confidence influence how often and effectively they seek assistance (Fan & Lin, 2023; Hao et al., 2016).

Graduate students' HSBs are influenced by the special challenges of higher-level education. Graduate students need to manage their time and resources carefully because they are typically older and may have families and other responsibilities. With the increase in online learning, graduate students frequently use tools like email or message boards to ask for help. Online tools allow graduate students to get support without feeling judged, making it easier to stay on track. For example, Koc and Liu (2016) found that graduate students prefer asynchronous tools, such as discussion forums, because they are flexible and less intimidating. However, online HSBs are often influenced by the type of program and the technology available to students.

Doctoral students face even greater demands and must use advanced strategies to get the help they need. For them, asking for help is often tied to their ability to complete research. Woo et al. (2024) found that students with high confidence in their research skills are more likely to seek help from their advisors and peers. The environment also plays a big role; for example, doctoral students in supportive research programs tend to ask for more help and use it more effectively. Fong et al. (2023) explained that doctoral students who focus on learning and improving, rather than just getting answers, achieved better results in their research and academics. For doctoral students, seeking help is not just about solving problems but also about growing as professionals and researchers.

The previous examples show how HSBs change as students get older and face new challenges. For graduate and doctoral students, asking for help is especially important because it leads them to handle complex work and stay successful in their programs. However, empirical evidence is limited about the goal of doctoral students' HSBs, whether to get a quick answer (executive) or to understand the material (instrumental) and the preferred sources of help: professors (formal), peers (informal), or online resources. Furthermore, HSBs are necessary for success in future endeavors (e.g., job seeking, teaching, research). Therefore, the current study aimed to investigate doctoral students' HSBs. The purpose of the study was twofold: a) to explore whether doctoral students' HSBs coincide with the literature of other learners' HSBs and b) to fill a need to better understand doctoral students' HSBs during a quantitative methods course so instructors can provide appropriate support for doctoral students. The current research study explored doctoral students' HSBs, using behavior logs, to qualitatively determine the purpose and

source of help that doctoral students solicit. One research question guided the study: What are doctoral students' HSBs in a Quantitative Research Methods course?

Literature Review

Learners seek help in a variety of ways (peers, teachers, videos, books, the internet, etc.). HSBs encompass seeking assistance from other people or sources to accomplish a goal (Karabenick & Berger, 2013; Martin-Arbos et al., 2021; Papamitsiou & Economides, 2020). HSBs are typically driven toward two different sources, formal and informal (Karabenick, 2001; 2004). Formal HSBs involve seeking help from the instructor, teaching assistant, or tutor—someone the student considers to be an expert on the topic. Informal HSBs, on the other hand, would involve seeking help from a person who may be able to assist but is not considered an expert in the topic, such as a friend, peer, classmate, or family member. The literature has shown mixed results about the sources students used for HSBs. For example, elementary students tend to seek help from adults (Nelson & Fyfe, 2019; Nelson-Le Gall; 1981). Schenke and colleagues (2015) found that high school and middle school students reported both formal and informal sources for HSBs: high school students reported more peer sources than middle school students; males asked less help from teachers and peers than females; and above-track students reported seeking more help from their peers than students who were on track (Schenke et al., 2015). Likewise, undergraduate students reported an equal probability of seeking help from their teacher as they would a peer (Karabenick, 2003; Karabenick & Knapp, 1991). However, Bembenutty (2006) found that undergraduate preservice teachers prefer to seek help from the instructor. Giblin and Stefaniak's (2021) qualitative study with undergraduate students revealed that students decided on their help-seeking sources based on the priority of the class and if help was anticipated for an assignment. Furthermore, students reported only after spending a significant amount of time attempting the assignment on their own, then would seek help—usually exploring online resources before reaching out to a classmate or faculty member. As noted by Giblin and Stefaniak's (2021) study, formal and informal are not the only sources of HSBs; online resources have become a popular source for many learners. Similarly, doctoral students, particularly those in hybrid or online learning environments, have been shown to prioritize online resources and asynchronous communication methods due to their flexibility, reflecting unique help-seeking strategies shaped by the demands of advanced study (Koc & Liu, 2016).

Technology offers an optimal source for students' HSBs. Over the past 15 years, Google searches, Khan Academy, online tutors, and YouTube videos have become more and more popular as a way of learning information (Giblin & Stefaniak, 2021; Hao et al., 2016; Lee et al., 2014; Puustinen et al., 2015), especially "for students to seek online help with academic problems" (Fan & Lin, 2023, p. 1). The use of online tools to solve academic problems may be related to students' ability to use the internet as a source (Lee et al., 2014; Fan & Lin, 2023). For instance, Lee and colleagues (2014) explored high school students' online academic HSBs and found that high school students may need additional training about internet-based

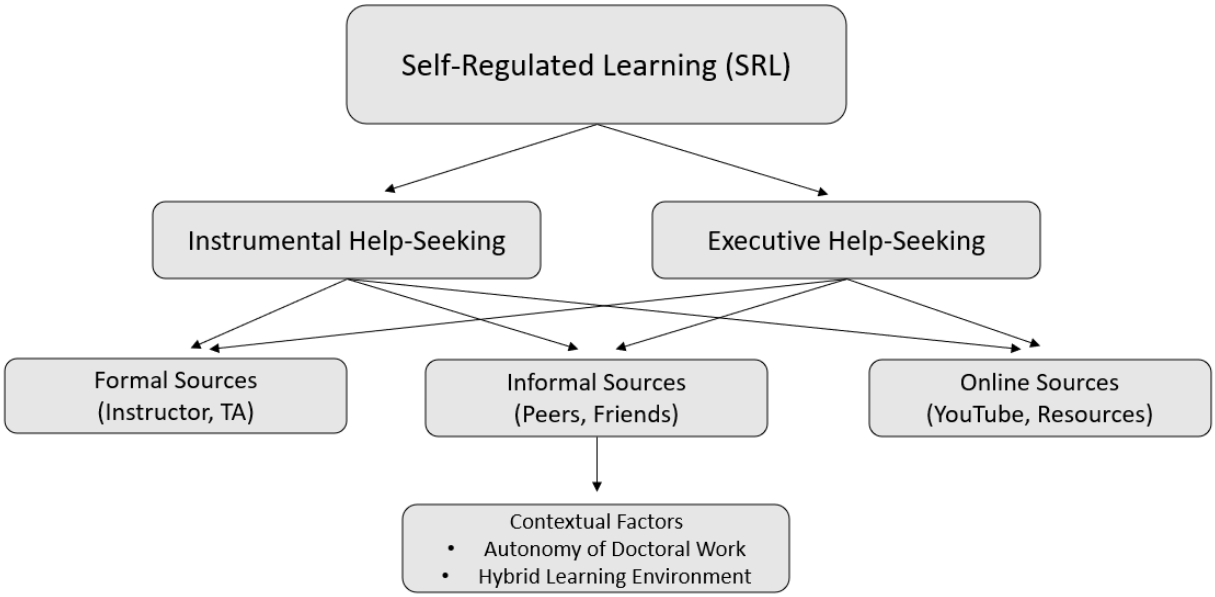
knowledge (e.g., accuracy and appropriateness) in order to successfully seek academic help online. Referring to undergraduate college students, Hao and colleagues (2016) also recommended online help-seeking training, "especially for students who only have classroom learning experience" (p. 471). Similarly, Fan and Lin (2023) argued that undergraduate students, who commonly use online sources for academic HSBs, have higher self-efficacy of online usage and applications. Other researchers have proposed that students prefer online searches as a source for seeking help due to the anonymity the online environment provides (Puustinen et al., 2015). For doctoral students, online tools not only provide anonymity but also allow doctoral students to balance the competing demands of research, coursework, and personal obligations, as noted by Koc and Liu (2016), who emphasized the importance of flexible, technology-driven help-seeking mechanisms for advanced learners (Koc & liu 2016). Although students use online searches as sources for HSBs, they also rely on human sources to support their HSBs (Giblin & Stefaniak, 2021).

Not only are the sources (formal, informal, online) of the HSBs important, but also the purpose or goal of the HSB is vital. HSBs could be motivated by wanting to better understand the material or obtaining just enough information to overcome difficulties, known as instrumental HSBs (Gonida et al., 2019; Karabenick, 2001; 2004; Martin-Arbos et al., 2021; Nelson-Le Gall, 1981; Schenke et al., 2015). HSBs that are motivated by wanting to reduce the workload or gain quick answers are known as executive HSBs (Gonida et al., 2019; Karabenick, 2001; 2004; Martin-Arbos et al., 2021; Nelson-Le Gall, 1981; Schenke et al., 2015) (see Figure 1). The literature has shown that students are more executive or avoidance in their HSBs during the middle or high school years (Schenke et al., 2015). This could be due to their development of self-regulation strategies. Help-seeking was perceived as an ego-threatening belief that prevented "them from seeking instrumental help and being more successful self-regulated learners" (p. 162). However, high school students reported more instrumental HSBs than middle school students and males reported lower levels of instrumental help-seeking and more executive HSBs (Schenke et al., 2015). Karabenick (2003) found that undergraduate students reported pursuing more executive rather than instrumental HSBs, however, Karabenick and Knapp (1991) found that college students used more instrumental than executive HSBs. Other researchers found that high school students demonstrated instrumental HSBs (Gonida et al., 2019; Roussel et al., 2011). In a qualitative investigation with undergraduate students, all participants reported "learning the material" (p. 105) as the purpose for seeking help (Giblin and Stefaniak, 2021). In contrast, doctoral students frequently engage in instrumental HSBs to meet advanced academic challenges and develop self-regulatory strategies in an effort to refine their research skills and academic independence (Amaral, 2022). Instrumental help-seeking, characterized by mastery-oriented strategies, has been shown to positively correlate with academic achievement in graduate populations (Fong et al., 2023). A review of the literature showed mixed results for the purpose of HSBs among middle school, high school, and college students. The differences in students' purpose for seeking help may be attributed to developmental differences (Gonida et al., 2019; Nelson-Le Gall, 1991), self-regulatory abilities (Schenke et al., 2015), or both. Furthermore, HSBs may vary

across cultures (Ogan et al., 2015), gender (Schenke et al., 2015), and cognitive abilities (Gonida et al., 2019), however, these constructs are beyond the scope of this study.

Figure 1

Conceptual Framework



Studies have noted several implications for future research. Giblin and Stefaniak (2021), Karabenick and Knapp (1991), and Puustinen and colleagues (2015) called for additional qualitative research into students' HSBs. Historically, HSBs have been investigated using quantitative methods, such as surveys and questionnaires (Hao et al., 2016; Karabenick & Knapp, 1991; Marin-Arbos et al., 2021; Puustinen et al., 2015) and few studies qualitatively investigated students HSBs (Giblin & Stefaniak, 2021; Koc & Liu, 2016). This study aligns with prior qualitative research on HSBs by adopting a general qualitative approach (Merriam & Tisdell, 2016) that prioritizes participants' perspectives, similar to studies by Giblin and Stefaniak (2021) and Puustinen et al. (2015). Using behavior logs over 12 weeks, this study extends the temporal scope of HSB investigations, responding to calls for longitudinal qualitative research (Karabenick, 2003; Fan & Lin, 2023). The long-term patterns of doctoral students' help-seeking behaviors highlight the importance of creating sustainable research paths, as suggested in guidance for designing graduate programs (DeVaney et al., 2019). Contrasting with the agency of self-regulated learning, surveys and questionnaires require participants to "select their responses from a predefined list" (Giblin & Stefaniak, 2021, p. 101) rather than providing participants an opportunity to identify and report their own HSBs. While some researchers focused on HSBs among elementary, middle, and high school students, other researchers focused their attention on college students, more specifically

undergraduate college students. Amaral (2022) highlighted that doctoral students' help-seeking behaviors often involve navigating complex academic environments, emphasizing the need for qualitative studies that capture their unique challenges and strategies. However, Fan and Lin (2023) as well as Gonida and colleagues (2019) called for exploring HSBs among a variety of students in other contexts. Lastly, Karabenick (2003) and Papamitsiou and Economides (2020) suggested exploring students' HSBs over a longer period of time. The current research study seeks to answer these calls for future research by qualitatively exploring doctoral students' HSBs over a period of 12 weeks using self-reported behavior logs.

Methods

Research Design

A general qualitative approach (Merriam & Tisdell, 2016) was employed to determine the HSBs of doctoral students in a quantitative research methods course. Using participants' words to create meaning is a distinctive characteristic of qualitative research and garnering doctoral students' responses about their HSBs provided a more nuanced understanding of HSBs through their own words (Miles et al., 2020). Using a qualitative approach to explore doctoral students' HSBs provided a deeper understanding than a standard survey would. For example, the Motivated Strategies for Learning Questionnaire (MSLQ) uses fixed questions and answer choices which could limit the researchers' understanding by not capturing each doctoral student's unique experience and response. Using the doctoral students' own words to describe their HSBs provides rich detail and a clearer picture of what asking for help looks like for each student. Data were collected over 12 weeks while doctoral students were tracking and recording their HSBs. Collecting data over time allowed the researcher to see the students' process in more detail which aligns well with a qualitative approach by focusing on understanding people's thoughts, actions, and experiences in their own words.

Participants

The current study used purposive sampling (Miles et al., 2020) to explore whether the HSBs identified in existing research applied to doctoral students in a quantitative methods course. Participants included 14 first-year doctoral students enrolled in an Introduction to Quantitative Methods course during the fall semester. The group was diverse in ethnicity, age, socio-economic status, and professional background, consisting of 13 female students and one male student from Mercer University's Tift College of Education. Doctoral students not enrolled in the course were excluded from this study. The demographic composition of the sample closely aligned with the broader population of doctoral students in the College of Education, reflecting similar diversity in gender, ethnicity, and background among students in this program.

Institutional Review Board (IRB) approval was granted under protocol number H2006145, and all participants provided consent to participate in the study. Efforts were made to protect participants' confidentiality: all identifying information was

removed from the data after collection. To maintain anonymity, names and identifying details were removed from all study documents, and generic references were used in publications and presentations. Data was stored on a password-protected computer and in a locked file cabinet.

Context of the Study

The research study took place at a small private research university located in the southeast of the United States. The university has a diverse student body with 44% European American, 31% African American, 9% Asian American, 6% Hispanic American, 4% unknown, and 6% as either multi-ethnic or international students. The university has a gender ratio of 67% women to 33% men. All students were enrolled in an Introduction to Quantitative Methods course in the College of Education. The quantitative methods course was a hybrid course that consisted of face-to-face, synchronous, and asynchronous classes. Synchronous classes were taught online via Zoom. The course was taught by a full professor with 30 years of experience in quantitative research methodology. The course also had a teaching assistant who was a high school mathematics teacher and fourth-year doctoral student specializing in quantitative research methodology.

Researcher Reflexivity Statement

The researcher is a middle-aged female and has 14 years of experience in education. She is currently employed as an Assistant Professor of Educational Research at a small private research university in the southeast United States. She teaches graduate and doctoral courses in the College of Education and specializes in quantitative research methodology. The researcher was interested in exploring students' HSBs because help-seeking is a critical skill for being successful in college, perhaps more so, in doctoral programs. Furthermore, it was well known within the college that the Introduction to Quantitative Research Methods course was challenging for doctoral students and many of the students chose a qualitative research training path after completing the quantitative methods course. The researchers' experience has been that many graduate students do not initiate HSBs, however, when they do not understand concepts, they often blame others (instructor, time, dog, etc.). Therefore, the researcher was interested in how students seek help during a challenging course, quantitative research methods, in an effort to better understand doctoral students' HSBs and derive ways in which instructors can support students' help-seeking. Asking students to record their HSBs will influence their awareness of their behaviors and potentially increase their behaviors. The researcher has investigated metacognition and most of her expertise is in the field of metacognition and self-regulated learning, so this influenced her desire to investigate HSBs of doctoral students.

Data Sources & Procedures

Weekly, students were asked to complete ten questions on a behavior log that recorded their help-seeking and studying behaviors for the week (see Figure 2). The questions were intended to encourage students to think explicitly about their

HSBs. The behavior logs consisted of ten questions, however, four questions, numbers 4, 8, 9, and 10, were removed because they were not related to HSBs or were Likert-type questions. The students were asked to record their questions, the way in which they sought help, to whom they sought help, as well as the topics they sought help for.

Figure 2

Weekly Behavior Log

Behavior Log

Please complete the following information about seeking help in regards to your 811 course.
Please be as specific and detailed as possible.

1. What questions did you ask this week, to whom did you ask them (professor, peer, friend, spouse, etc.), and how did you ask your questions (email, face to face, Zoom, text, etc.)?

2. If you used the internet to answer questions for yourself this week, please specify what topic(s) you searched for and which sites you visited (YouTube videos, forums, etc.).

3. Please explain any collaboration with peers you engaged in this week (topic, assignments, data analysis, etc.).

4. Please explain how you used the textbooks (or other textbooks) to understand the material this week.

5. If you attended paid or unpaid tutoring this week, please explain what concepts or topics were discussed.

6. If you contacted the professor this week, please explain what concepts or topics were discussed.

7. What do you think is the most effective way to get assistance (questions answered, better understanding, etc.) with the material in this course and why?

8. How did you study for this course this week?

9. How often did you seek help for the course this week? (circle one)

   Not at all once 2-3 times 4-5 times more than 5 times

10. On a scale of 1-6 how worried are you about completing the course work? (circle one)

    1 2 3 4 5 6

    Not at all worried extremely worried

All students registered in the course were invited to participate in the study. Each week, for a total of 12 weeks, the students were asked to record their HSBs on the behavior log. The behavior logs were submitted weekly to the researcher using Canvas, the University's Learning Management System. A total of 168 behavior logs were collected by the instructor over a period of 12 weeks. The logs were completed weekly during the student's own time and submitted before class.

Data Analysis

The researcher downloaded the weekly behavior logs for analysis. There was a total of 14 doctoral students and each student completed a weekly behavior log for 12 weeks providing a total of 168 behavior logs for analysis. To assess the authenticity (Merriam & Tisdell, 2016) of the behavior logs, the researcher confirmed and organized the behavior logs by week for each student. All students' responses from the six retained questions on the behavior log were copied and pasted into the Excel document. The Excel document was printed for coding and analysis.

To begin the analysis, the researcher first read through the participants' responses to get an understanding of the data. Next, the researcher coded chunks of the data using two a priori codes (Miles et al., 2020), instrumental and executive, identified from the literature (Karabenick, 2004; Schenke et al., 2015). Both codes focused on the purpose of HSBs. Instrumental HSBs are intended to develop an understanding of the content and involve how, what, or why questions. Executive HSBs are intended to receive a quick answer and involve who, when, where, is, or are questions. Then, the researcher engaged in peer debriefing during the coding process with an expert qualitative methodologist faculty member. During peer debriefing, the researcher shared the codebook and examples of data. After working through several examples of data, there was a discussion about how chunks of data are coded and why. The codes were finalized and further described after the peer debriefing session.

Next, the researcher went back through the coded data and coded the chunks of data again using three additional a priori codes identified as formal, informal, and online (Karabenick, 2004; Schenke et al., 2015; Lee et al., 2014). The second set of a priori codes focused on from whom help was sought. Formal HSBs were directed toward the instructor or teaching assistant for the course. Informal HSBs were directed toward peers, friends, or family members. Online HSBs were directed toward the use of online resources such as videos. A description and example of each code is provided in Table 1. Data that indicated no responses, "I don't know," or "none" were not coded. Then, the researcher engaged in another peer debriefing discussion with the same expert faculty member. During peer debriefing, there was a discussion about the potential relevance of the codes and explanations as well as decisions about how many weeks of data to analyze. The researcher decided not to code the data for weeks 9-12 because the chunks of data were verbatim from previous weeks; the researcher could not determine if the data were valid HSBs the doctoral students engaged in and reported or if the doctoral students were copying their responses from previous behavior logs with the intent to simply complete the behavior log.

Table 1

A Priori Code Descriptions

A Priori Code	Description	Example
Instrumental (I)	the purpose of the students' query was to develop an understanding of the content (how, what, or why questions)	*I asked another student for help understanding how to follow the SPSS manual in order to analyze my data for the final project.*
Executive (E)	the purpose of the students' query was to get a quick answer (when, where, is, or are questions)	*Is anything due for class this week?*
Formal (F)	students' query was directed toward the instructor or the teaching assistant	*Emailing the professor or Zoom.*
Informal (In)	students' query was directed toward peers, friends, or a group chat	*Peers on GroupMe*
Online (O)	students' query was directed toward online resources	*Khan Academy-two sample t-test for difference of means.*

Quality Indicators

The trustworthiness of a research study involves establishing credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Credibility was established using peer debriefing. A colleague provided the researcher thorough analytical probing to uncover potential biases and assumptions, as well as, an opportunity for the researcher to test and defend codes. Credibility was also heightened because the data were collected in the same way for all participants (consistency), the participants were as intended (doctoral students needing help in a quantitative methods course), and the doctoral students represented diverse educators (variety of races, ethnicities, socio-economic statuses, abilities, cultures, and professions). The researcher contends that the findings are not generalizable to all situations and contexts, however, the use of participant quotes leaves the interpretation to the reader to evaluate the extent that the conclusions are transferable to other situations and contexts. Furthermore, peer debriefing during the analysis process provided accountability and made the results transferable to other doctoral students. The systematic and transparent data collection, analysis descriptions, data sources, and procedures provide support for dependability, providing an option for other researchers to replicate the research study in other contexts and situations. To enhance confirmability, the researcher included a reflexivity statement to acknowledge their potential biases and perspectives. Additionally, the researcher explained how analytical decisions were made, documented the type of analysis conducted, engaged in peer debriefing, and provided multiple examples.

Results

The researcher investigated doctoral students' HSBs in a Quantitative Research Methods course. Two types of HSBs, instrumental and executive, are explained and themes from each are described. The distribution of codes across three modes of from whom (formal, informal, and online) and two purpose categories (instrumental and executive), along with the respective totals, showed that the overall data set consisted of 233 instrumental codes, 32 executive codes, and a total of 265 coded data (see Table 2). The counted codes indicated that doctoral students' HSBs were predominantly instrumental across all formats, formal (71), informal (78), and online (84), with fewer executive HSBs which totaled 32 compared to 233 instrumental HSBs. The counted codes suggested that doctoral students tend to seek help for mastering and understanding tasks rather than simply completing them, regardless of the type of help sought.

Table 2

Coding Counts

	Instrumental	Executive	Total
Formal	71	6	77
Informal	78	19	97
Online	84	7	91
Total	233	32	265

Instrumental

Instrumental HSBs encompass wanting to better understand the material or obtaining just enough information to overcome difficulties. A majority of the instrumental HSBs doctoral students reported were posed to online resources such as YouTube and Google. One student stated, "I think the most effective way to get assistance with the material in this course is to Google or YouTube to better understand what I'm reading." Likewise, other doctoral students reported, "I've found that finding YouTube videos of people explaining concepts has been beneficial," "finding outside resources help me to understand the material in this course," and "watched six YouTube videos." The utilization of online resources by doctoral students indicated their belief that sources such as YouTube videos would aid in achieving their learning objectives. However, none of the doctoral students who reported using online resources as a HSB indicated how they determined if the online resource was an accurate source.

Many doctoral students reported seeking help from their peers was preferred because they were all engaging in the same experience at the same time. For instance, one student stated, "Several of us usually have the same questions/concerns." Some doctoral students reported seeking help from their

peers because of convenience. For example, one student said, "Peer to peer questioning-often easily accessible." However, only one doctoral student demonstrated strategic HSBs when they reported the type of query often influenced their HSB by indicating "if it is a more minor question, I tend to lean on my classmates." Overall, doctoral students in a Quantitative Research Methods course primarily sought help from their peers and online resources to better understand the material without considering the reliability or validity of the source. Not only did doctoral students use their peers and online sources to seek instrumental help in a Quantitative Research Methods course, but they also relied heavily on their professor and teaching assistant.

Doctoral students showed instrumental HSBs by going to formal sources like professors and teaching assistants for help and understanding. Many doctoral students said they "ask questions during class," or "request a demonstration of the concept." Some also shared that they went to tutoring sessions offered by the teaching assistant and thought "it was very helpful." A few students even talked to their previous professors to better understand the content. The previous examples demonstrated how doctoral students take active steps to improve their learning by using formal academic resources.

Doctoral students usually seek help that enhances their understanding and learning (instrumental), rather than simply completing tasks (executive). Whether doctoral students turn to professors, classmates, or online tools, instrumental HSBs reflect an active role in their learning and a focus on improvement. For most doctoral students, instrumental HSBs are described as convenient and often centered on peers or online sources. Therefore, educators and academic institutions should provide support that encourages instrumental HSBs from all available sources.

Executive

Executive HSBs involve wanting to reduce the workload or gain quick answers. The doctoral students in the study demonstrated executive HSBs by using peers as a quick resource. Doctoral students used online resources as a source for executive HSBs. One student reported that the cohort of doctoral students used "several data hubs to find numbers to complete the research project with a data set." Doctoral students used online resources to get a quick answer (e.g., what do we need for class) or quickly complete an assignment (e.g., numbers for a dataset). It is possible that doctoral students may not perceive online resources as HSBs because a student who reported on their behavior log that they "watched six YouTube videos," also reported that they did not seek any help that week. Furthermore, the doctoral students' executive HSBs were more related to the course design. More specifically, the executive queries appeared to be related to course design or clarity as indicated by "I did ask a colleague [peer] via GroupMe if the course was removed and for clarity what chapter we were supposed to read via text," and "what do we need for class on September 21st?" Although most of the executive HSBs were informal, one student contended, "My cohort is great for basic questions, ultimately [the professor] should be consulted for specific assignment and expectation questions;" however, six out of 265 codes were executive formal

queries. In other words, the doctoral students were less likely to seek help from formal or online sources if they were using executive HSBs.

Discussion

Learners need to develop HSBs for success in college and throughout life. HSBs show initiative and self-control (Nelson-Le Gall, 1981). The current research study explores how doctoral students used HSBs in a quantitative research methods course. The results showed that doctoral students used similar types of HSBs as other learners, including instrumental and executive HSBs, and relied on informal, formal, and online sources to get help. While the current study builds on established methodologies in help-seeking research, such as self-reported logs and a priori coding, it specifically addresses a gap in the literature by focusing on doctoral students' behaviors in a hybrid learning environment. This focus allowed for an in-depth exploration of help-seeking strategies that are less commonly studied among advanced learners, as recommended by Karabenick (2003) and Papamitsiou and Economides (2020). However, doctoral students seemed more strategic in their approach, using every available resource to fully understand the material. Doctoral students' strategic use of resources showed that their HSBs were motivated by a strong desire to learn and improve their knowledge and skills.

Peer Sources

Like previous studies, HSBs of doctoral students were directed toward informal, formal, and online resources (Fan & Lin, 2023; Schenke et al., 2015). However, most of the doctoral students reported seeking help from their peers to better understand the course material because their peers were a convenient resource. Predominately posing questions to peers is an interesting finding because the doctoral students admitted they were engaging in the same experiences and had similar queries and struggles. The researcher wonders why doctoral students would think their peers would be a reliable source of information when they had already demonstrated that they were not a reliable source by needing the same level of support, asking the same questions, etc. As advanced and strategic learners, one would think doctoral students would seek help from more formal sources such as the instructor or teaching assistant; people that were experts with the content and could provide the support needed. Future research studies could explore this phenomenon.

Online Sources

Despite the extensive use of HSBs posed to peers, doctoral students also reported HSBs using online resources, another potentially unreliable source. There is a plethora of online resources, and the accuracy of those resources is often unknown. All the doctoral students reported using online resources to answer queries. Therefore, and similar to seeking help from peers, it is astonishing that doctoral students used online resources, rather than formal resources, as a predominant HSB. Previous research showed that online resources provide learners an opportunity to query anonymously to protect their self-esteem of not knowing

something as well as being able to receive an answer quickly (Fan & Lin, 2123; Giblin & Stefaniak, 2021; Karabenick, 2003; Puustinen et al., 2015). However, in the current study doctoral students did not maintain their anonymity because they reported "sharing" online resources with each other on a weekly basis. Future research should explore concepts of anonymity (Puustinen et al., 2015), internet self-efficacy (Fan & Lin, 2023), or epistemic beliefs (Lee et al., 2014; Hao et al., 2016) of online HSBs with doctoral students compared to other learners. Additionally, and contrary to previous research (Fan & Lin, 2023; Lee et al., 2014), it is possible that doctoral students may not perceive online resources as HSBs. For instance, some doctoral students reported they did not seek help, and yet they reported online behaviors that were help-seeking. Researchers could explore doctoral students' understandings of HSBs in future research to determine if they consider searching for online resources as HSBs or if the unanimous shift to online learning during the COVID pandemic redefined online HSBs. Furthermore, if doctoral students are using online resources to the extent represented in the current research study, then it would be valuable for instructors to provide appropriate, valid, and reliable resources for students to use (Hao et al., 2016).

Formal Sources

In an effort to receive help from formal sources, the doctoral students provided the instructor suggestions for how they could provide more instructional support to the doctoral students. As strategic learners, perhaps the doctoral students realized that their informal HSBs (e.g., peers and online resources) were not as effective as they thought. Therefore, in an effort to seek help from formal sources, the doctoral students made recommendations and suggestions (e.g., explicit examples, tutoring, modeling) to the professor and teaching assistant about support that could be provided to them. Making instructional recommendations and suggestions to the professor to provide support to students might be a unique characteristic of strategic HSBs among doctoral students because this HSB was not found in the literature. It is also possible that the complexity of the content in a Quantitative Research Methods course and the autonomy of a doctoral program initiated doctoral students' unique HSBs of making recommendations and suggestions to the professor. Doctoral students would benefit from more intentional and strategic modeling and examples in a Quantitative Research Methods course. Both students and instructors may benefit from the normalization of talking and asking questions during instruction. Furthermore, social interactions, such as small groups or partner work, can be used as instructional strategies to encourage both formal and informal HSBs. Lastly, instructors should consider providing doctoral students a way to ask questions anonymously, such as Google forms (Ford, 2023; Puustinen et al., 2015), exit tickets, or discussion boards, to accommodate learners who are not comfortable with formal interactions.

Comparison to Undergraduate Help-Seeking Behaviors

The findings from this study reveal several similarities and differences between the HSBs of doctoral students and those of undergraduate students as reported in the literature. Like undergraduate students, doctoral students relied on informal,

formal, and online sources for help-seeking (Giblin & Stefaniak, 2021; Karabenick, 2003). However, doctoral students in this study demonstrated a greater tendency toward instrumental HSBs, such as seeking to understand material deeply, whereas undergraduate students often exhibit more executive HSBs aimed at obtaining quick answers or reducing workload (Karabenick, 2004). Additionally, while undergraduate students have been shown to prioritize help from peers or instructors depending on the perceived stakes of the task (Giblin & Stefaniak, 2021), doctoral students frequently utilized peers as their primary resource, despite shared struggles and queries within the group. This reliance on peers, coupled with extensive use of online resources, suggests that doctoral students may prioritize convenience over source reliability, a behavior that warrants further exploration. Digital tools not only provide convenience but also enhance metacognitive self-regulation, a critical factor for academic achievement among graduate students (Brady et al., 2020).

The differences between doctoral and undergraduate students demonstrate the unique strategies doctoral students employ to navigate the complexities of advanced coursework. While undergraduate students' HSBs are often shaped by classroom dynamics and immediate academic pressures (Schenke et al., 2015), doctoral students appear to strategically leverage all available resources to balance their professional, academic, and personal responsibilities. The findings highlight the importance of tailored support strategies, including reliable online resources and structured opportunities for formal help-seeking, to effectively support the unique needs of doctoral students.

Implications for Practice

The findings of this study on doctoral students' HSBs can inform practice in ways specifically suited to graduate-level education, given the unique challenges and preferences of graduate students. While some recommendations may also benefit undergraduates, the strategies outlined here are tailored to meet the distinct needs of graduate students, who often work with more complex material and greater autonomy.

Although peers are a convenient and often supportive resource for HSBs at all academic levels, graduate students may benefit more from structured support networks with peers who can provide advanced discussion and collaborative problem-solving relevant to their coursework (Giblin & Stefaniak, 2021). Creating a classroom environment that encourages students to seek help from both formal sources, such as instructors and teaching assistants, as well as from qualified peers, can foster a supportive atmosphere specifically suited to the advanced content that graduate students encounter (Karabenick & Knapp, 1991; Martin-Arbos et al., 2021). Graduate-level HSBs particularly benefit from targeted faculty mentorship, regular check-ins with content experts, or specialized group study opportunities that address the unique depth and complexity of graduate work.

Graduate students often turn to technology for HSBs due to the anonymity or convenience it provides. Given the level of self-regulation expected in doctoral

programs, instructors must provide students with appropriate, validated, and reliable online resources that align with their advanced coursework (Hao et al., 2016; Lee et al., 2014). An approved list of high-quality resources provided in the syllabus or regularly during class could guide students toward trustworthy sources. Learning management systems that allow for direct links to trusted online resources can further support doctoral students who rely on digital tools for independent learning.

To accommodate graduate students who may be hesitant to ask questions openly, especially in a graduate setting where students may feel pressure to display expertise, instructors could provide anonymous methods of seeking help. Options such as anonymous exit tickets, discussion boards, or a simple Google form for anonymous questions could be effective for students who prefer private channels for help-seeking (Giblin & Stefaniak, 2021). Creating anonymous avenues for HSBs respects the specific needs of graduate students and recognizes that advanced learners may require more discreet or varied approaches to engage fully in their studies.

While some strategies here are broadly applicable to all students, they are tailored to the distinctive help-seeking preferences and academic needs of graduate students. Given the autonomy and complexity of graduate work, approaches such as structured peer networks, reliable online resources, and anonymous help-seeking tools are likely to provide the specific types of support that foster self-regulated learning (SRL) in advanced programs. Future research may further explore how these tailored supports compare to strategies traditionally used with undergraduates, clarifying differences in HSBs between graduate and undergraduate students and identifying areas where graduate-specific support is most beneficial.

Conclusion

The current research study examined the help-seeking behaviors of doctoral students, emphasizing the importance of HSBs in supporting independent learning and success in advanced coursework. The findings revealed that, while graduate and undergraduate students shared some general approaches to help-seeking, doctoral students exhibited more complex, self-regulated behaviors and unique preferences for seeking support. Graduate students' help-seeking behaviors are deeply tied to their metacognitive regulation, as highlighted in research on reading comprehension strategies and collaborative knowledge-building practices (Wilson et al., 2024). Doctoral students often relied on a combination of informal, online, and formal resources instead of solely depending on professors or teaching assistants. The findings challenged common assumptions about how advanced learners seek help and offered practical suggestions for improving support, such as creating structured peer networks and providing reliable online tools. By exploring the strategic and diverse nature of doctoral students' HSBs, the current research study highlighted the need for tailored support systems that addressed doctoral students' specific challenges and encouraged self-regulated learning. Ultimately, this research deepened the researcher's understanding of HSBs in complex educational settings

and provided valuable recommendations for educators to better assist doctoral students in achieving their academic and professional goals.

Conflict of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Acknowledgment

I want to express my deepest appreciation to Dr. Sara E. Luke for her guidance and support. Her dedication to spending so many hours in discussions and peer debriefing was incredibly helpful. Dr. Luke's advice and feedback were key to improving this work, and I truly appreciate all the time, encouragement, effort, and expertise she provided.

References

Amaral, B. M. (2022). *Doctoral students' different types of help-seeking behavior within the academic mentoring experience* [Doctoral dissertation, Montana State University]. Montana State University ScholarWorks.

Bembenutty, H. (2006, April 7–11). *Preservice teachers' help-seeking tendencies and self-regulation of learning* [Paper presentation]. American Educational Research Association 2006 Annual Meeting, San Francisco, CA, United States.

Brady, M., Rosenthal, J. L., Forest, C. P., & Hocevar, D. (2020). Anonymous versus public student feedback systems: Metacognition and achievement with graduate students. *Educational Technology Research and Development, 68*, 2853-2872. https://doi.org/10.1007/s11423-020-09800-6

DeVaney, S. A., Wilmarth, M. J., Lee, Y., Delgadillo, L. M., & Spangler, A. (2019). Helping graduate students develop a research plan. *Family and Consumer Science Research Journal, 47*(4), 384-394. https://doi.org/10.1111/fcsr.12308

Fan, Y. H. & Lin, T. J. (2023). Identifying university students' online academic help-seeking patterns and their role in internet self-efficacy. *The Internet and Higher Education, 56*, 1–10. https://doi.org/10.1016/j.iheduc.2022.100893

Fong, M., Kaner, E., Rowland, M., Graham, H. E., McEvoy, L., Hallsworth, K., Cucato, G., Gibney, C., Nedkova, M., Prentis, J., & Madigan, C. D. (2023). The effect of preoperative behaviour change interventions on pre- and post-surgery health behaviours, health outcomes, and health inequalities in adults: A systematic review and meta-analyses. *PLOS ONE, 18*(7), e0286757. https://doi.org/10.1371/journal.pone.0286757

Ford, A. K. [@username]. (2023, February 16). *Sharing the 9th grade with y'all.* TicTok. https://www.tiktok.com/@fairyniceofyou/video/7202284985913478442?_r=1&_t=8bzBRtIisXu&social_sharing=v4

Giblin, J. & Stefaniak, J. (2021). Examining decision-making processes and heuristics in academic help-seeking and instructional environments. *TechTrends, 65*, 101–110. https://doi.org/10.1007/s11528-020-00556-7

Gonida, E. N., Karabenick, S. A., Stamovlasis, D., Metallidou, P., & CTY Greece. (2019). Help seeking as a self-regulated learning strategy and achievement goals: The case of academically talented adolescents. *High Ability Studies, 30*(1–2), 147–166. https://doi.org/10.1080/13598139.2018.1535244

Hao, Q, Wright, E., Barnes, B., & Branch, R. M. (2016). What are the most important predictors of computer science students' online HSBs? *Computer in Human Behavior, 62*, 467–474. https://doi.org/10.1016/j.chb.2016.04.016

Johnson, W. R., Durning, S. J., Allard, R. J., Barelski, A. M., & Artino, A. R. (2023). A scoping review of self-monitoring in graduate medical education. *Medical Education, 57*(9), 795-806. https://doi.org/10.1111/medu.15023

Koc, S., & Liu, X. (2016). An investigation of graduate students' help-seeking experiences, preferences, and attitudes in online learning. *The Turkish Online Journal of Educational Technology, 15*(3), 27–38.

Karabenick, S. A. (2001, April 10–14). *Seeking help in large college classes: Who, why, and from whom? New perspectives on help seeking as an adaptive strategic resource of self-regulated learners* [Symposium]. American Educational Research Association 2001 Annual Meeting, Seattle, WA, United States.

Karabenick, S. A. (2003). Seeking help in large college classes: A person-centered approach. *Contemporary Educational Psychology, 28*, 37–58. https://doi.org/10.1016/S0361-476X(02)00012-7

Karabenick, S. A. (2004). Perceived achievement goal structure and college student help seeking. *Journal of Educational Psychology, 96*(3), 569–581. https://doi.org/10.1037/0022-0663.96.3.569

Karabenick, S. A. & Berger, J. L. (2013). Help seeking as a self-regulated learning strategy. In H. Bembenutty, T. J. Cleary, & A Kitsantas (Eds.), *Application of self-regulated learning across diverse disciplines*: *A tribute to Barry J. Zimmerman* (pp. 237–261). Information Age Publishing.

Karabenick, S. A. & Knapp, J. R. (1991) Relationship of academic help seeking to the use of learning strategies and other instrumental achievement behavior in college students. *Journal of Educational Psychology, 83*(2), 221–230. https://doi.org/10.1037/0022-0663.83.2.221

Lee, W. C., Chiu, Y. L., Liang, J. C., & Tsai, C. C. (2014). Exploring the structural relationship between high school students' internet-specific epistemic beliefs and their utilization of online academic help seeking. *Computers in Human Behavior, 36*, 391–400. https://doi.org/10.1016/j.chb.2014.03.069

Lincoln, YS. & Guba, EG. (1985). *Naturalistic inquiry.* Sage Publications.

Martin-Arbos, S., Castarlenas, E., & Duenas, J. M. (2021). Help-seeking in an academic context: A systematic review. *Sustainability, 13*, 1–16. https://doi.org/10.3390/su13084460

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation.* John Wiley & Sons, Incorporated.

Miles, M. B., Huberman, A. M., & Saldana, J. (2020). *Qualitative data analysis: A methods sourcebook*. Sage Publishing.

Nelson, L. J. & Fyfe, E. R. (2019). Metacognitive monitoring and help-seeking decisions on mathematical equivalence problems. *Metacognition and Learning, 14,* 167–187. https://doi.org/10.1007/s11409-019-09203-w

Nelson-Le Gall, S. (1981). Help-seeking: An understudied problem-solving skill in children. *Developmental Review, 1*, 224–246. https://doi.org/10.1016/0273-2297(81)90019-8

Ogan, A., Walker, E., Baker, R., Rodrigo, M. M. T., Soriano, J. C., & Castro, M. J. (2015). Towards understanding how to assess HSB across cultures.

International Journal of Artificial Intelligence in Education, 25, 229–248. https://doi.org/10.1007/s40593-014-0034-8

Papamitsiou, Z. & Economides, A. A. (2020). The impact of an-demand metacognitive help on effortful behaviour: A longitudinal study using task-related visual analytics. *Journal of Computer Assisted Learning, 37*, 109–126. https://doi.org/10.1111/jcal.12472

Puustinen, M., Bernicot, J., Volckaert-Legrier, O., & Baker, M. (2015). Naturally occurring help-seeking exchanges on a homework help forum. *Computer & Education, 81*, 89–101. https://doi.org/10.1016/j.compedu.2014.09.010

Roussel, P., Elliot, A. J., & Feltman, R. (2011). The influence of achievement goals and social goals on help-seeking from peers in an academic context. *Learning and Instruction, 21*, 394–402. https://doi.org/10.1016/j.learninstruc.2010.05.003

Schenke, K., Lam, A. C., Conley, A. M., & Karabenick, S. A. (2015). Adolescents' help seeking in mathematics classrooms: Relations between achievement and perceived classroom environmental influences over one school year. *Contemporary Educational Psychology, 41*, 133–146. https://doi.org/10.1016/j.cedpsych.2015.01.003

Wilson, N. S., Dussling, T., Adams, B., Stevens, E., Baumann, J., Yang, S., Smetana, L., Bean-Folkes, J., & Van Wig, A. (2024). What a multi-institutional collective case study of social annotation data reveals about graduate students' metacognitive reading practices. *Literacy, 58*(2), 190-203. https://doi.org/10.1111/lit.12364

Woo, H., Kim, N., Lee, J., Chae, K., & Mathew, A. (2024). Research self-efficacy and research productivity of doctoral students in counselling programmes: Research training environment as a moderator. *British Journal of Guidance & Counselling*. Advance online publication. https://doi.org/10.1080/03069885.2023.2297892

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Bockaerts, P. R. Pintrick, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). Academic Press. https://doi.org/10.1016/B978-012109890-2/50031-7

Zimmerman, B. J., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of Educational Psychology, 82*, 51–59. https://doi.org/10.1037/0022-0663.82.1.51