An Investigation of Graduate Students' Help-Seeking Experiences, Preferences and Attitudes in Online Learning

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ABSTRACT
This study explored graduate students' help-seeking preferences, attitudes and experiences based on the online classes they took at a Midwestern higher education institution. The findings indicated that the majority of the students used self-regulatory strategies in their help-seeking process striving for independent mastery of learning. Thematic analysis of the qualitative data led to four themes with respect to the help-seeking experiences of online students: Asynchronous learning; help-seeking process and strategies; self-regulation and goal orientation; student characteristics and previous help-seeking experience. The researchers suggest that help-seeking mechanisms and tools need to be structured into online classes utilizing formative assessment, collaborative community of learners and technologies that will facilitate student help-seeking.

INTRODUCTION
An emerging area in the online learning research is the academic help-seeking behavior of students. Help-seeking is an important self-regulatory and metacognitive skill (Nelson-LeGall, 1981; Newman, 1994). It is defined as "an achievement behavior involving the search for and employment of a strategy to obtain success" (Ames & Lau, 1982, p. 414). Seeking help contributes to a general pattern of student resilience in overcoming obstacles to learning and achievement (Newman, 2000, 2002). When students engage in appropriate help-seeking behaviors and instructors provide effective help mechanisms and tools, increased learning gains can be achieved. Help-seeking plays a crucial role in student learning experience due to the unique challenges online learning environment may pose (Dunn, Rakes, & Rakes, 2014). Online help-seeking is different from traditional help-seeking in many aspects. Whipp and Chiareli (2004) found that online learners sought help from the instructor, peers to reduce feelings of loneliness, use Web-based helpers and peer postings in online discussions.

Help-seeking in the online environment can be influenced by a variety of factors such as the technology, course management system, the nature of the class and student and instructor characteristics. While much research has been conducted on help-seeking in traditional face-to-face environments, there is limited amount of research on help-seeking behavior, preferences and strategies in the online environment. Research on help-seeking is an important area of study because of the need for support and guidance to meet the particular needs of distance learning students (Kitsantas & Chow, 2007). An understanding of cognitive, motivational, and technological characteristics of students' help-seeking behavior and the factors that influence help-seeking in an online classroom can help instructors develop effective tools and techniques for increased student learning.

HELP-SEEKING PROCESS, GOALS AND STUDENT BEHAVIORS
Online learners must be active and deliberate seekers of their learning. They need to obtain the necessary help taking responsibility for their learning (Manasneh, Sowan & Nassar, 2012, p. 196). Academic help-seeking requires the use of resources such as time and effort as well as the knowledge of when and how to use help-seeking as a strategy (Karabenick, 2006).

Various models have been proposed to explain the process of academic help-seeking (e.g., Nelson-LeGall, 1981; Newman, 1994; Karabenick & Dembo, 2011). These models share some common elements that mimic problem solving phases. In the first phase, students encounter a problem in their learning and become aware of the need to seek help. During the second phase, they try to decide whether they should seek help or not by considering the type of help needed, whom they should ask for help, and how. If they decide to seek help, they then enter the

third phase of help-seeking, which is using strategies to solicit help. The last phase involves receiving help and evaluating or processing the help received.

As indicated in the models of help-seeking process, choosing strategies or sources to solicit help is very important once a student decides to seek help. Karabenick and Knapp (1991) classified help-seeking behaviors into five categories: Formal help-seeking, informal help-seeking, instrumental activities, lowering performance aspirations, and altering goals.

Formal help-seeking is seeking assistance from sources such as instructors and teaching assistants. Informal help-seeking is seeking assistance from peers. Instrumental activities are designed to improve performance such as studying harder, taking notes. Lowering performance aspirations and altering goals include taking a lighter load, registering for easier classes and changing majors. Research shows that the act of help is dependent upon the classroom focus, students' perceptions and beliefs about help-seeking and a teacher's instructional approach, openness and flexibility (Kitsantas & Chow, 2007).

Help-seeking mechanisms instructors provide to students can influence the help-seeking process and strategies of online learners. Previous research has examined help-seeking mechanisms used by students in online learning. A consistent finding is that using email seems to be the preferred mechanism for formal help-seeking among college students. For example, Kitsantas and Chow (2007) found that the majority of the students enrolled in blended and Web-based courses preferred using email and considered it effective when seeking help from instructors or peers, while about 12% of them preferred using message boards and chat to receive help from instructors. Similarly, emailing the instructor was the most commonly used help-seeking strategy among nursing students enrolled in the online section of a nursing course followed by posting comments under discussion forums, and posting questions in the 'Ask Question' area within Blackboard (Mahasneh, Sowan & Nassar, 2012).

A few studies, including the two studies above, examined frequency of student help-seeking across different learning environments. Kitsantas and Chow (2007) found that college students enrolled in blended and online courses reported higher instances of formal help-seeking than traditional classroom students. The authors indicated that students in traditional classrooms felt more threatened in receiving help than students in blended or online learning classrooms. Such an explanation is supported by an earlier study that found students, particularly the students with performance orientation, felt more anonymous and less threat posed by seeking help to their self-esteem in Web-based environments than they do in traditional classrooms (Schofield, 1995). Kumrov (2007) also found that nursing students in a blended learning setting sought help more and received higher grades compared to those in traditional classroom settings. However, Mahasneh, Sowan and Nassar's (2012) study concluded that students in the online section of a nursing course asked significantly fewer questions than those in the face-to-face section of the same course. This may be the result of the help mechanisms and tools supported by the course design and the instructor. The asynchronous nature of online learning that promotes flexible and easy access to resources in addition to students' self-regulatory approach in online learning can be factors that explain the findings in this study.

Promoting help-seeking behaviors among online learners can be challenging. Contrary to the help technologies available, online learners avoid help functions or may not use them effectively (Aleven, Stahl, Schworm, Fischer & Wallace, 2003). The absence or avoidance of help-seeking may not be directly related to the degree of help a student may need (Karabenick & Dembo, 2011). When students do not seek help, it may mean that they cannot formulate a reasonable question or are embarrassed to seek academic help. In addition, students who are self-regulated learners may avoid help-seeking due to their strive towards autonomous learning.

Help-seeking goals can have a significant impact on students' help-seeking behaviors. According to Nelson-Le Gall (1981, 1985), there are two types of help-seeking goals: Instrumental (adaptive) and executive (expedient). Learners' goal to enhance their understanding leads to instrumental help-seeking behavior whereas executive help-seeking serves a short-term perspective and is focused on completing the task without striving for deeper understanding (Nelson-Le Gall & Resnick, 1998). As a result, executive help seekers often involve others in an attempt to avoid work or to minimize the perceived cost of achievement. Interestingly, it was found that instrumental help seekers prefer formal sources such as the instructor and those seeking executive help prefer informal sources that are often more readily available to them such as other students (Knapp & Karabenick, 1988). Educators need to understand what influences learner help-seeking in order to design and deliver content that support positive learning outcomes.

STUDENT-RELATED FACTORS IN ONLINE HELP-SEEKING

Aleven et al. (2003) list learner-related factors that influence help-seeking: prior knowledge, self-regulation, age and gender, epistemological beliefs, goal orientation. In addition, cultural values and social roles emphasizing self-reliance and individual achievement may influence attitudes toward help-seeking (Nelson-Le Gall, 1985). Seeking help can imply inadequacy; threaten self-worth that learners may avoid the consequences of perceived costs of asking for help (Karabenick, 2006). Understanding what students may perceive as threatening can help instructors find ways to minimize issues that may occur in an online class. A study conducted with 300 college students at Taiwan University found that students' academic help-seeking behaviors were related to their Web-based learning self-efficacy (Cheng & Tsai, 2011). Study results indicated reciprocal relations between experience, self-efficacy of web-based learning and preference in students' online academic help-seeking behaviors. Other studies showed that effective help-seeking is positively related with academic achievement and prior knowledge. Wood and Wood (1999) found that students with lower prior knowledge sought help more frequently, whereas students with higher prior knowledge exhibited more effective help-seeking behavior.

Self-regulated learners use a toolkit of strategies when dealing with academic challenges (Newman, 2002). They tend to seek instrumental (adaptive) help that is based on cognitive and social competencies as well as personal and contextual motivational resources. Cognitive competencies are about knowing when help is necessary and how to ask a question. Social competencies include knowing how to execute a request in an appropriate way and to the best person. Personal motivational resources are: personal goals, self-beliefs, and willingness to express a need for help. Contextual motivational resources include factors such as classroom goals, collaborative activities and student-teacher interactions (Newman, 2002). These competencies need to be kept in mind when designing online courses in order to address the dynamics involved in academic help-seeking.

In order to succeed, online learning requires that students use self-regulatory strategies and metacognitive skills. Students need to know when they need help, what kind of help they need and how they can get help. Help-seeking is a self-regulative behavior in which the learner engages in monitoring and assessing their own learning. Self-regulated learners are characterized by their control over learning processes (Newman, 1998). College students who use a variety of self-regulated learning strategies tend to seek help more frequently than other students (Karabenick & Knapp, 1991). If the learner has metacognitive skills, then they can assess help is needed and act upon it. Age and learners' epistemological beliefs are factors that influence students' help-seeking behavior as help-seeking and self-regulatory mechanisms improve with age. Learners' epistemological beliefs can influence their "awareness of whether they need help, their engagement in help-seeking activities, and their interpretation of the value of the help offered…" (Aleven et al., 2003, p. 306).

Achievement goals are closely related to help-seeking behavior and may have different implications depending on the type of help sought. Learners with mastery goals are more likely to seek help that is instrumental (adaptive) whereas learners with performance approach and performance avoidance goal orientations are more likely to engage in help-avoidance or seek executive (expedient) help (Karabenick, 2006). Learners may avoid help because of their orientation on perceived lack of ability, or autonomous orientation of striving for independent mastery (Butler, 2006).

The classroom context should support help-seeking behavior rather than help-avoidance regulated by perceived lack of ability. In contrast, students with help-avoidance due to their strivings for autonomous orientation of help-seeking are likely to seek help "as long as the context enables them to try to first overcome difficulty on their own and the help is relevant to learning and is thus supportive, in the long run, of their autonomy" (Butler, 2006, p. 27). In this respect, providing help mechanisms and tools that gear to different help-seeking or avoidance approaches becomes an important instructional design consideration.

The anonymity of the learning environments may provide opportunities of help-seeking behavior and reduce the effects of ability-focused orientation that may result in help-avoidance (Aleven et al., 2003). In addition, accessibility to information on the Internet may provide advantageous to help-seeking motivation. Although there are advantages, students' perceived writing ability in an online discussion or text-based chat can be a drawback for some learners when they are willing to seek help which may lead to help-avoidance through those channels.

There are many ways that an online instructor may encourage help-seeking among his/her students as implied by research on help-seeking in traditional classrooms. First of all, student help-seeking behavior is impacted by classroom goal structure (Kitsantas & Chow, 2007). Task-focused classrooms promote help-seeking behavior whereas achievement-focused classrooms decrease student help-seeking. Second, if the students do not perceive the teacher as supportive when they seek help, they may not ask for help (Ryan & Shin, 2011). Finally, prompt,

positive and constructive instructor feedback lead to higher levels of student help-seeking (Glover & Zimmer, 1982; Ames & Lau, 1982, as cited in Kitsantas & Chow, 2007, p. 385). In a qualitative study that examined college students' experiences in an online class via analysis of course participation records and individual interviews, it was found that the frequent and timely feedback received from the course instructor was a key factor in students' success (Whipp & Chiarelli, 2004). It is important to understand how to design the online classroom, particularly the help-seeking mechanisms and interactions for effective teaching and learning.

PURPOSE OF THE STUDY
In an online classroom, several factors such as the technology, the asynchronous nature of online learning, student goal orientations can influence student behavior in seeking academic help. Seeking help is not always conducive to learning; therefore, "how the more productive and less productive forms of help-seeking can be distinguished, what factors lead to productive help-seeking, and how help-seeking is related to the development of independent skill and ability" need to be studied (Aleven et al., 2003, p. 278). A knowledge base of learner help-seeking strategies and attitudes in the online learning environment can inform instructors in incorporating mechanisms and tools for effective student help-seeking. The purpose of this study was to examine graduate students' academic help-seeking experiences, preferences and attitudes in online learning.

METHODOLOGY
The present study utilized a mixed method research design combining both quantitative and qualitative approaches to investigate the research questions. Specifically, we implemented a concurrent nested mixed method design with the priority given to the quantitative approach. A survey was developed to collect primarily quantitative data to answer the first two research questions and describe students' self-reported help-seeking methods and attitudes. The survey was embedded with a few open-ended questions to collect qualitative data that would supplement the quantitative component by providing a rich, detailed picture about individual students' subjective experience in the help-seeking process in online courses.

Participants for the current study were recruited from students enrolled in online sections of three graduate-level courses in educational technology, curriculum and instruction, and adult learning and development at a Midwestern university. At the time of the study, all courses used Blackboard as their course management system. In addition to the Web-based presentation of course materials and assessment, the instructors posted frequently asked questions and included both asynchronous forum discussions and synchronous text-based chat sessions. While email was the primary means of communication between the instructor and the students, all instructors offered face-to-face office hours and phone contact. Among the students, communication occurred in the form of postings on the discussion board as well as email messages through Blackboard or the university's emailing system empowered by Microsoft Office. Student grades were based on quizzes and exams, individual and group projects, and participation in discussion forums and chat rooms.

The final sample for the data analysis includes a total of 26 students who agreed to participate in our study and completed the survey. Among them 20 were females and six were males. Sixty-six percent of the students were between the ages of 30 and 49. At the time of this study, about 39% of the students had taken one online course, 27% took two or three courses online, 19% four or five online courses, 12% six or seven online courses, and 4% took more than eight online courses.

The questionnaire consisted of demographic questions, student help-seeking from the instructor and classmates, and student attitudes towards help-seeking. The section on help-seeking from the instructor listed five methods of communication and asked the students to check their preferred methods of contacting the instructor in two help-seeking situations, respectively: a) when they are confused about or do not understand a subject matter concept in an online course, and b) when they are confused about the directions for completing an assignment, a due date, grade or other class procedures. Students were allowed to check more than one preferred methods of communication from the list. Two additional options were added for the respondents to check whether they have not needed to ask the instructor for help or whether they were not comfortable asking the instructor for help. "Help-seeking from classmates" questions were the same except that "my instructor" was changed to "classmates". Finally, the section on attitudes toward help-seeking consisted of four subscales: a scale on perceived need for help-seeking, a scale on perceived availability of help, a scale on help-seeking efforts, and a scale on help-seeking avoidance. There were 10 questions in this section and students were asked to respond to each question on a three-point Likert type scale (3 = *a great deal*, 2 = *somewhat or sometimes*, 1 = *little or no*).

In order to gain a deeper insight into students' help-seeking experience, five open-ended questions were used in the questionnaire. The questions were as follows: What are the advantages of studying online when you need help? What are the disadvantages of studying online when you need help? What strategies do you use when you

need help in an online course? What advice would you give to instructors when they design an online course in order to better support students who need help? What advice would you give to other students to get help when they are taking an online course?

The course instructors distributed the consent form and the questionnaire to their students by email. Instructors also posted an announcement about the study on Blackboard. Students were told that their participation in this study was voluntary and whether they participated or not would not affect their relationship with the instructor, the researcher or the university, or any benefits that they may receive or expect to receive in the future. Students who decided to participate sent the completed questionnaire as an attachment to their instructor. The instructors then forwarded all responses to the principal investigator by email after making sure that there was no identification information in the file.

FINDINGS
Quantitative findings
Student help-seeking preferences
Results from the survey (see Table 1) showed that a majority of the students (92.3%) preferred emailing instructors privately when they are confused about or don't understand a subject matter concept. A small percentage of the respondents indicated that they preferred calling their instructor on the phone (19.2%) or posting a question on the Q & A discussion board (15.4%). The Q & A discussion board questions were designed to be answered either by the course instructor or by the students. Only one participant favored posting a question for the instructor in chat rooms and meeting face-to-face with the instructor respectively (3.8% and 3.8%). 7.7% of the respondents indicated that they did not need to ask their instructor for help with directions or class procedures though they were all comfortable asking their instructor for help with such matters.

Similar help-seeking pattern occurred on matters related to directions and procedures. When confused about the directions for completing an assignment, a due date, a grade or other similar class procedures, a majority of the students preferred seeking help from their instructor via email (84.6%). Calling the instructor on the phone or posting a question to the instructor on the Q & A discussion board was much less preferred (19.2% and 11.5%) as methods for help-seeking, whereas posting a question to the instructor in a chat discussion and meeting face-to-face with the instructor was least preferred (3.8% and 3.8%).

Table 1. Student Preferences for the Methods of Seeking Help from the Instructor in Online Learning (N=26)

Methods of help-seeking	Item 11- Subject Matter Content		Item 12- Direction & Procedures	
	N	%	n	%
Emailing my instructor privately	24	92.3%	22	84.6%
Calling my instructor on the telephone	5	19.2%	5	19.2%
Posting a question to my instructor on the class discussion board	4	15.4%	3	11.5%
Posting a question to my instructor in live chat	1	3.8%	1	3.8%
Meeting face-to-face with my instructor	1	3.8%	1	3.8%
I have not needed to ask my instructor(s) for help.	0	0.0%	2	7.7%
I am not comfortable asking my instructor for help.	0	0.0%	0	0.0%

Note. Item 11 - "When you are confused about or don't understand a subject matter concept, which method of contacting instructor in an online course would you most prefer?" Item 12 - "When you are confused about the directions for completing an assignment, a due date, a grade or other similar class procedures, which method of contacting your instructor would you most prefer?"

Table 2. Student Preferences for the Methods of Seeking Help from their Classmates in Online Learning (N=26)

	Item 13- Subject Matter Content	Item 14- Direction & Procedures

Methods of help-seeking	N	%	n	%
Emailing my classmate(s) privately	14	53.8%	18	69.2%
Posting a question to my classmates on the class discussion board	8	30.8%	7	26.9%
Calling my classmate(s) on the telephone	4	15.4%	5	19.2%
Meeting face-to-face with my classmate(s)	4	15.4%	4	15.4%
Posting a question to my classmates in live chat	2	7.7%	0	0.0%
I have not needed to ask my classmate(s) for help.	4	15.4%	2	7.7%
I am not comfortable asking my classmate(s) for help.	1	3.8%	1	3.8%

Note. Item 13 - "When you are confused about or don't understand a subject matter concept, which method of contacting OTHER STUDENTS in an online course would you most prefer?" Item 14 - "When you are confused about the directions for completing an assignment, a due date, a grade or other similar class procedures, which method of contacting OTHER STUDENTS would you most prefer?"

Student preferences for seeking help from classmates showed a slightly different pattern (see Table 2). About half of the respondents (53.8%) indicated that they preferred emailing their classmates privately when they are confused about or don't understand a subject matter concept. The second most preferred method of contacting their classmates for help on subject matter content was posting their question on the Q & A discussion board, chosen by 30.8% of the respondents. Calling their classmates on the phone or meeting face-to-face with them was preferred by a small percentage of the respondents (15.4% and 15.4%, respectively) when they needed help on subject matter content, whereas posting a question to their classmate(s) in live chat was the least preferred (7.7%). The order of student preferences remained the same when seeking help from classmates regarding the directions for completing an assignment, a due date or other class procedures. Moreover, 69.2% of the respondents preferred emailing their classmates privately when they needed help with directions and procedures. The second most preferred method was still posting a question to their classmates on the Q & A discussion board (26.9%). The third was calling classmates on the telephone (19.2%), and the fourth preferred method was meeting face-to-face with classmates (15.4%). None of the respondents indicated any preference for posting a question to their classmates in live chat to seek help with directions and procedures. Regarding the perceived need for help-seeking from peers, almost all of the students indicated such a need though a few indicated no need to seek peers' help with subject matter content (15.4%) or to seek peers' help with directions and procedures (7.7%). All but one respondent indicated that they were comfortable asking their classmates for help with either subject matter content or directions and procedures.

Student attitudes toward help-seeking and help provided
We explored student attitudes toward help-seeking, including perceived need for help-seeking and perceived availability of help, and their help-seeking efforts or avoidance in online learning. As shown in Table 3, most students considered that they needed help from their instructor somewhat or sometimes (61.5%), with 23.1% considered they needed little or no need from their instructor and 15.4% indicated that they needed a great deal of help from their instructor. When asked about their need for help in an online class from their classmates, most students indicated "little or no" such need (61.5%) while some indicated "somewhat or sometimes" (30.8%) and still fewer indicated "a great deal" of help from their classmates (7.7%). In terms of availability of help, about half of the students (57.7% and 53.8%, respectively) indicated that their online classes were structured to provide help for them "somewhat or sometimes", regardless of whether the help was about subject matter content or about class procedures. About a third of the respondents indicated that their online courses were structured to provide a great deal of help, while very few students indicated that their online classes were not structured to provide much help. On the other hand, students reported low to moderate help-seeking efforts about working with their classmates but more efforts about working on their own. A majority of the students (88.5%) indicated that they tried a great deal to do work on their own without help from anyone. Relatively speaking, students tried harder to work with their classmates when they had questions about the class procedures than when they did when they had questions about the subject matter content. Over half of the students (53.8%) indicated little or no effort in seeking help from their classmates when they had questions about the subject matter content and 26.9% indicated such help-seeking efforts somewhat or sometimes, whereas 42.3% of the respondents reported that

they made little or no effort to seek help from their classmates when they had questions about the class procedures and 46.2% reported they tried to seek such help somewhat or sometimes.

Table 3. Students' Attitudes towards Help-Seeking and Help-Seeking Efforts/Avoidance in Online Learning (N=26)

	A great deal		Somewhat or sometimes		Little or no	
	N	%	N	%	n	%
Perceived need for help-seeking						
To what extent do you think you need help in an online class from your <u>instructor</u>? (Item 15)	4	15.4%	16	61.5%	6	23.1%
To what extent do you think you need help in an online class from your <u>classmate(s)</u>? (Item 16)	2	7.7%	8	30.8%	16	61.5%
To what extent do you think you need help in an online class from <u>outside resources</u> such as the web, the library, or tutors? (Item 17)	8	30.8%	12	46.2%	6	23.1%
Perceived availability of help						
To what extent do you feel that online classes are structured to provide help for students when they have questions about the <u>subject matter content</u>? (Item 18)	9	34.6%	15	57.7%	2	7.7%
To what extent do you feel that online classes are structured to provide help for students when they have questions on the <u>class procedures</u>? (Item 19)	10	38.5%	14	53.8%	2	7.7%
Help-seeking efforts						
To what extent do you try to work with other students when you have questions about the <u>subject matter content</u>? (Item 20)	5	19.2%	7	26.9%	14	53.8%
To what extent do you try to work with other students when you have questions about the <u>class procedures</u>? (Item 21)	3	11.5%	12	46.2%	11	42.3%
To what extent do you try to do work on your own without help from anyone? (Item 22)	23	88.5%	3	11.5%	0	0.0%
Help-seeking avoidance						
To what extent do you avoid asking for help from the <u>instructor</u> in an online class? (Item 23)	4	15.4%	7	26.9%	15	57.7%
To what extent do you avoid asking for help from your <u>classmate(s)</u> in an online class? (Item 24)	3	11.5%	14	53.8%	9	34.6%

Finally, help-seeking avoidance existed but it was not common. Over half of the students (57.7%) indicated that they rarely or never avoided asking for help from the instructor and 26.9% indicated that they avoided help-seeking from their instructor sometimes. Relatively more students indicated that they avoided seeking help from their classmates in an online class, with 53.8% reported they did so sometimes and 34.6% indicated that they rarely or never did so. Findings also indicated that male students tend to avoid seeking help which corroborates with the research that male students avoid seeking help more frequently than female students.

Qualitative findings
Participant responses to open-ended questions were analyzed using thematic approach. "Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data" (Braun & Clarke, 2006, p.6) to gain a deeper insight and understanding about a phenomenon. The two researchers read and coded student responses to the open-ended questions independently. They then collectively examined the coding categories and refined the coding scheme before sorting them for emerging themes. All together four themes emerged with respect to the graduate students' help-seeking experiences in online learning. The following themes influenced help-seeking behavior and strategies of online learning: Asynchronous learning, help-seeking process and strategies, self-regulation and goal orientation, student characteristics and previous help-seeking experience in online learning.

Asynchronous learning

The non-real time nature of asynchronous learning provided the students the time needed for effective help-seeking and independent learning. Students took chance of the flexibility of asynchronous learning to think through their questions. For example, a student reported that the reduced time constraints in online courses provided more time in her help-seeking process. This student also thought that the non-real time aspect of online learning helped instructors to think through the help sought and in the process of providing help. The student said:

> I can take all the time I need to think about, form and then type my question, ensuring its precision. Instructors likewise can answer at their convenience, enhancing the likelihood that they will understand my question and provide the correct information.

Students talked about the importance of "immediacy" or "wait time" required for a response. They reported that getting help was not as immediate as it would be in a face-to-face classroom setting. The time of the day when students studied for the course influenced the "wait time" for receiving help. For example, one student noted, *"… it is annoying sometimes that I want some information at 11 p.m. & I'll have to wait until the next day or longer to get a response."* Asynchronous learning did not allow for the immediacy of the help needed by the students.

Writing was another factor with respect to asynchronous learning that interrupted the "study flow" when help was needed as one student implied that "asynchronous answer interrupts her study flow." This student also mentioned that if she doesn't type her questions clearly, there is an additional delay in having to restate the question and wait for a response. Another student reported that if his question is not clear, it might take more time to get a response. He said, "It takes more time if I have not been able to make my questions clear." He continued, "If a question is complicated or nuanced, the back-and-forth of e-mail may require a lot of effort and time which might have been avoided in a face-to-face encounter." Another student's comment included: "Be careful with the words you choose via e-mail or chat when you ask help from anyone… Thus, miscommunication may occur, causing undue conflict." On the other hand, for students whose English was their second language, seeking help in the online environment gave them more time to compose their written messages even though it was challenging at times as one student put it: "Sometimes it is difficult posing the question in a way that answers it."

In majority, students reported that courses were structured in a manner that facilitated strategies and mechanisms for seeking help and for providing help. For example, one student noted that online courses and instructors provide help sources that are flexible [asynchronous] and easy to access. As suggested by the students' comments, online learning enabled easy access to help resources provided by the instructors and those that were available on the Internet.

Help-seeking process, self-regulation and goal orientation

In majority, the students' help-seeking process followed a sequence of decision-making in the order of: Rereading the course material, searching information on the Web and then asking the instructor or classmates. Although all participants reported that they were comfortable asking the instructor for help, a few of the students noted that they ask their classmates first and then the instructor because classmates are usually the first to respond. The students frequently utilized discussion boards when they needed to ask a question to their classmates or for reading other students' postings to find help to their questions. Some comments included: "You can post a question and usually get a response from someone in the class.", "Every classmate may see [your question] and offer his/her help.", "You can make a post on the discussion board and get fairly quick answers.", "I can post questions to my classmates on the Q & A discussion board or in live chat when I need help." However, one student noted that her last choice would likely be to ask a classmate. Two students said that they ask questions to their classmates but only if they have "previously met them in person."

Student responses indicate that they use self-regulation strategies when they think they need help or when they feel the need to revisit or clarify their questions. For example, one student said that if he is not able to gain understanding from the material, she calls upon her instructor and/or classmates. Another student's response included, "If materials provided are not helpful, I can search the Web for alternate materials that fit my "readiness" level." These responses also indicate student self-awareness of their learning and metacognitive processes. Some students reported that they wanted to solve their course-related problem or question on their own instead of seeking help from others that indicates goal orientations such as autonomous orientation. One student reported that it was difficult for him to ask classmates because he feels he should be able to figure out the response to his question. He said:

> The more web classes I have taken, gradually I have gotten more comfortable asking my classmates for advice or help. But this still doesn't come naturally to me. I feel like I should be smart to figure most things out for myself.

Student responses showed that access to the course discussions or chat transcripts helped them clarify their own questions. This indicates a reflective approach to learning supported by a venue to revisit content when help is needed as shown in one of the student's comment: One can take time to understand the helping messages and review them repeatedly.

Learner characteristics and previous help-seeking experience

Student comments on the advantages of online help-seeking reflected different help-seeking preferences based on learner characteristics. For example, one student wrote: "Seeking help from the instructor is similar to having one-on-one interaction - you can ask your own specific question(s)." Another student felt that she can perform a quick search on the Web when she needed help "without feeling like I'm [he is] interrupting" the class. On the contrary, one student said that help-seeking online was lacking "personal, individualized contact." Another student said "Sometimes it is nice to just be able to raise your hand and ask a question."

Students' previous help-seeking experience influenced what they thought about help-seeking online. For example, one student said "Instructors are easier to get a hold of when you take an online class." It also seemed that students have developed strategies for seeking help based on their previous online learning experiences. Student responses included: "get to know the professor right away at the beginning of the course", "find out the most effective way to get questions effectively", "make full use of the communication channels available and talk (could be in the form of text, chat, video conferencing, face-to-face, etc.) with the instructor often." This student's statement indicated that she has developed a particular strategy when it comes to asking for help from her instructor. This student's response demonstrated self-regulatory strategies and competencies such as cognitive and social competency. She said:

> Don't be afraid to be aggressive when needing help. Try everything you can think of first, then email the professor with your question. AND include what you have already tried to work out the problem, for example; which materials you have read, what techniques you have tried. If the professor's answers to your questions do not help, rephrase the questions. If all else fails, call for a phone conversation or make an appointment for a face-to-face [meeting].

Some students talked about the importance of collaborating with another student in the class and the importance of communicating help messages properly. For example, students said: "Try to establish a relationship with classmates.", "Try to seek out an online classmate and friend, it makes the learning easier. Speak up when you are stuck, being aggravated or freaked out and silence doesn't get you anywhere."

DISCUSSION

Help-seeking is an important learning strategy in online learning. The present study investigated help-seeking behaviors and attitudes towards help-seeking among graduate students. Survey results indicate that the students' decision-making process for selecting help resources primarily followed these strategies: Rereading the material, searching for information on the Web, seeking help from the instructor or classmates. In addition, survey results showed that a majority of the students (88.5%) reported working on their own without help from anyone. The students reported that they should be able to solve a content-related question on their own before seeking help from other resources such as the instructor or classmates. Based on a review of the literature, Lynch and Dembo (2004) found that learning assistance management (help-seeking) is one of the five self-regulatory attributes of online learners. These findings suggest that students preferred studying independently as they were motivated by self-regulatory cognitions. This result may also be related to students' self-efficacy and prior knowledge in the particular domain that they were studying. When learners feel that they have knowledge of the topics of study, they may not seek help and may persist in trying to find the solution on their own (Aleven et al, 2003).

Help-seeking orientation can be autonomous – focused on understanding and increased competency (Butler, 1998). In the current study, the participants reported that due to the asynchronous nature of the online course, they had the opportunity to review the course materials or help messages on their own time until they understood the help provided. The reflective approach that the students demonstrate in their efforts of understanding the course content indicates autonomous orientation. However, the students' tendency to not seeking help from their classmates may indicate that student help-seeking orientation may be ability-focused – concern with not appearing incompetent. Learners may avoid help because of their orientation on perceived lack of ability or

autonomous orientation of striving for independent mastery (Butler, 2006). The findings with respect to the male students' tendency for help-avoidance may be related to their autonomous or performance approach goal orientations. Further research can investigate the relationship between online learners' achievement goal orientations and tendency for help-seeking or help-avoidance.

Knowing when and how to seek help is a key self-regulatory skill (Nelson-Le Gall, 1981; Newman, 1994). Students who possess self-regulatory strategies are motivated to use appropriate strategies at the appropriate time (Newman, 2002). In the current study, the participants emphasized the importance of knowing when and how to ask a question properly. This indicates that students utilized cognitive and social competencies. The students reported low to moderate help-seeking efforts when working with their classmates but reported more effort when working on their own. Students' use of motivational strategies were demonstrated when the students reported that they seek to answer the question on their own before seeking help from other resources. In addition, the ease of access to the course content materials due to the asynchronous nature of online learning and to the Web facilitated self-regulatory cognition and activities that the students engage in may have increased student orientation towards help-seeking from different resources.

The study findings regarding the immediacy of help support needed can be minimized by creating a collaborative learning community which may help decrease the "wait time" for receiving help. A community of learners can assist with the immediacy of information help sought by the students without disrupting their "study flow". This approach may also help minimize the transactional distance, a psychological and communication space to be crossed, by the instructors and students. In addition, a supportive learning community may help reduce help-avoidance driven by feelings of perceived threat to ability or content-related competence. Peer-review activities, group work, collaborative roles for students and more knowledgeable peers are some strategies instructors can utilize to support effective help-seeking. However, caution is needed for allowing adequate "wait time" for student inquiry and reflection on the question when providing immediate help resources to the students. Instructors may need to develop strategies that will help design courses accordingly.

Students' motivation in solving content related questions on their own before they ask the instructor or classmates can be categorized as instrumental (adaptive) help-seeking. Instrumental or adaptive help-seeking is the learner's goal to enhance his/her understanding. Online learning environments need to be designed to encourage instrumental help-seeking behavior particularly for those students who do not have as much self-regulatory skills. "Instructors must use instructional time to provide students with learning experiences that involve using competencies/resources effectively to complete specific tasks." (Karabenick & Dembo, 2011, p. 41). As Newman (2002) suggests, cognitive and social competencies, personal and contextual motivational resources need to be studied further for an in-depth understanding of student help-seeking preferences, behavior and patterns. Help tools or mechanisms should minimize expedient or executive help students may seek. Providing help-seeking mechanisms for the students becomes an important instructional design issue for the instructors in order to improve student learning as well as student retention in online courses.

Asynchronous communication formats can influence help-seeking behavior by promoting privacy, reducing the anxiety associated with face-to-face communication, allowing time for students to think and construct their questions and providing the convenience and flexibility of anytime, anywhere posting. Although the instructor of the courses in this study had set up synchronous chat sessions, the participants did not find them as useful as asynchronous formats. Concurring with this finding, Kitsantas and Chow (2007) also found that one-to-many format, the lag time between questions and answers, and the public nature of chatting with its potential for public embarrassment may be possible explanations for why students do not prefer synchronous chat for help-seeking. 3.8% of student response for using chat may also indicate that the synchronous chat sessions were not utilized or structured by the instructor for informal or formal help-seeking. However, current mobile and synchronous technologies offer great potential with respect to ease of use and access. Instructors may need to think ways for taking advantage of these technologies. Hwang, Wu, Tseng and Huang (2011) suggest using mobile technology for context-aware ubiquitous learning. These types of help-seeking mechanisms can provide real-time help from peers, particularly from more knowledgeable peers or instructors that support collaborative knowledge construction.

The study results indicated that an overwhelming majority of the students preferred emailing their instructor when they sought help regarding the subject matter content and regarding the directions and procedures for course requirements. When asked about the amount of help needed from the course instructors, 15.4% of the students reported that they needed a great deal of help from their instructor. About a third of the respondents (Table 3) indicated that their online courses were structured to provide a great deal of help. Instructor awareness of a student's need for help plays an important role in motivating students in online learning. As found in Beebe,

Vonderwell, and Boboc's (2010) study, most online instructors did not have a mechanism of detecting that help is needed unless students emailed them with their questions. When instructors are not aware of student need for help, they may develop what Ryan and Shin (2011) call an "observer dilemma" and misinterpret a lack of help-seeking as showing low motivation or effort in a student. Such a dilemma, however, can be largely avoided with the use of innovative instructional strategies, checking for student help needs and scaffolding particularly early on during the coursework. Instructors should monitor and encourage student participation. This requires that the instructors provide a supportive environment where all responses are valued. Creating a learner culture where students are comfortable participating and asking questions to the instructor and to each other publicly through the discussion board will benefit student learning.

The students' help-seeking experiences show that instructors need to provide multiple ways or mechanisms for help such as a list of credible Web resources or help prompts. For example, Schworm and Gruber (2012) used instructional prompts to encourage students to seek for help such as performing an information search on the Internet, talk to their classmates or instructor when they thought they need help. Their study found that students who used prompts about the relevance of active help-seeking had better learning outcomes. Providing help resources that facilitate formative assessments and instructor follow-up of those assessments may encourage student help-seeking; thus, increase learning.

There are many advantages to using course management systems; however, course instructors need to integrate creative ways for encouraging help-seeking behavior. With the use of Web 2.0 tools, online apps and mobile technologies, online courses can be redesigned for increased student support for effective help-seeking. Online course design standards (i.e., Quality Matters) can also include an item that is specific to providing help mechanisms and tools.

CONCLUSION

This study found that the students demonstrated a great deal of self-regulatory strategies. It should be noted that the study was limited to twenty-six graduate students in a teacher education program at a Midwestern university in the U.S. Future research is needed to investigate help-seeking behaviors in online learning among different student populations, with a larger sample size, or within a different instructional context. In addition, this study only explored student perspective in the help-seeking process without collecting data from the instructors. Online instructors' perspective in terms of soliciting help-seeking and responding to help seeking requests warrants further investigation.

Help-seeking mechanisms and tools need to be structured into the course utilizing formative assessment techniques, Web 2.0 tools and apps motivating the students beyond some constraints of course management systems. Further research can investigate help-seeking differences and motivational resources between courses that support community of learners and those that are geared towards independent coursework. In addition, instructor understanding of student help-seeking behavior and how they provide help to their students will be valuable for developing professional development programs for faculty who teach online.

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