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IDENTIFYING THE PREFERRED SOURCES
AND OPTIONS OF HELP SEEKING

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Educational Psychology

by

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ABSTRACT

Students in modern post-secondary school classroom environments have the choice of several help seeking sources to choose from (the professor, teaching assistant, or classmates) as well a choice of several different options to seek help with (email, discussion board, in class, before class, during office hours, or during online office hours). Providing the least threatening sources and options of help to students should increase help seeking behavior and subsequent achievement levels. This study examines how help seeking threat and possessing adaptive and avoidant help seeking tendencies predicts a self-reported preference for utilizing different help sources and options. Students in two sections of an introductory college class were provided with a 105 item survey that measured adaptive help seeking tendencies, avoidant help seeking tendencies, perceived help seeking threat, and perceived intention to seek help using the different options and sources of help that were available to them. Results from several correlation analyses indicate that avoidant help seekers are less adverse to online help seeking options, and adaptive help seekers intend to utilize all sources and options more than avoidant help seekers.

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Chapter 1

INTRODUCTION

Help seeking is a self-regulatory learning strategy that allows students to overcome otherwise insurmountable obstacles by receiving guidance from a more knowledgeable source (Karabenick & Sharma, 1994; Newman, 1994; Ryan, Pintrich, & Midgley, 2001). The process of help seeking is intentional and requires students to constantly evaluate themselves and the help that they received (Makito-Siegl & Fischer, 2011). As a result, the help seeking process, as defined by Nelson-Le Gall (1981), does not necessarily proceed in a linear fashion. However, the help seeking process contains the following five steps: step one, an individual becomes aware of a problem; step two, the individual makes a decision to seek help; step three, the individual identifies the appropriate source of help; step four, the individual implements a strategy for getting help; and step five, the individual evaluates the help they received.

Most of the research conducted on help seeking focuses the second step of Nelson Le Gall's (1981) process and the factors that influence a student's decision to seek help (Butler, 1998; Karabenick, 2004; Ryan, Hicks, & Midgley, 1997). From this research, two different help seeking profiles have emerged: adaptive and avoidant help seeking. Students with adaptive help tendencies seek help when help is needed, while students with avoidant help seeking tendencies avoid seeking help even when they need it (Butler, 1998; Newman, 2002; Newman & Schwager, 1995; Ryan, Gheen, & Midgley, 1998; Ryan & Pintrich, 1997; Ryan & Shin, 2011). Consequently, adaptive help seekers have higher achievement scores and persist longer when difficulty arises than avoidant help seekers (Ryan, Patrick, & Shim, 2005; Ryan et al., 2009).

The motivational factors that differentiate adaptive and avoidant help seekers have been thoroughly examined and will be briefly reviewed in this paper (Ryan & Pintrich, 1997; Ryan & Shin, 2011). One of the factors, the threat of help seeking, is perceived to be dramatically different by learners with the two help seeking profiles (Ryan & Pintrich, 1997; Ryan, Patrick, & Shim, 2005). As a result, a main focus in the help seeking literature is to determine what contributes to help seeking threat (Karabenick, 2011; Karabenick & Knapp 1991).

Previous studies have examined whether or not peers or the teacher are more associated with help seeking threat (Newman & Goldin, 1990; Newman & Schwager, 1993; van der Meij, 1988); however, there are relatively few other studies that have focused on the identification of other help seeking sources, which would be categorized within the third step of Nelson Le Gall's (1981) five step help seeking process. Furthermore, little is known about how the presence of different help seeking options effect help seeking behavior, which would fall into the fourth step of Nelson Le Gall's (1981) help seeking process (Puustinen, Bernicot, Erboul, 2011; Puustinen & Rouet, 2009). This paper will explore whether or not help seeking threat is associated with a particular source or option of help that is available to the student.

In modern classroom environments, students may often have several help seeking sources to choose from (the professor, teaching assistant, or classmates), as well as the choice of several different options of how to seek help (email, discussion board, in class, before class, during office hours, or during online office hours). Students with different help seeking tendencies may prefer different sources or options of help. Providing the preferred sources and options of help to students, especially to students with avoidant help seeking tendencies, could help increase help seeking behavior and subsequently student achievement. Additionally, since teachers may not recognize when students have difficulties, particularly in large classroom environments that

dominate many intuitions of higher education, it is important to examine which sources and options of help these students prefer to utilize.

Therefore, the purpose of this paper is to explore the following five research questions pertaining to a large college classroom. Do self-reported preferences of help seeking sources and options relate to intended help seeking behavior? How do the students' help seeking profiles relate to each of the students' preferred help seeking options? How do the students' help seeking profiles relate to each of the students' preferred help seeking sources? How does perceived help seeking threat relate to each of the students' preferred help seeking options? How does perceived help seeking threat relate to each of the students' preferred help seeking sources?

Chapter 2

LITERATURE REVIEW

In the following chapter, a brief review of previous research studies will be presented. First, the importance of help seeking behavior, in regard to student performance, will be explored. Student performance has been shown to be impacted by students' help seeking tendencies and motivations, which will be reviewed next. Subsequently, help seeking tendencies and motivations are affected by the threat of help seeking and several studies that examined this issue will be reviewed.

The present study examines whether or not students with different help seeking tendencies and different levels of help seeking threat prefer to utilize different sources and use different options of help seeking, so this chapter examines previous research articles that have examined who students seek help from and how they seek help using different help seeking options. Finally, the chapter concludes with a description of the research questions and hypotheses.

The Importance of Help Seeking Behavior

Several research studies indicated that appropriate academic help seeking behavior predicted academic achievement, increased resilience, and helped students to overcome difficulties in the classroom (Ames, 1983; Butler & Neuman, 1995; Karabenick & Newman, 2006; Magnusson & Perry 1992; Ryan & Shin 2011). Unfortunately, not all students who need

help seek help, which can potentially stall the learning process (Knapp & Karabenick, 1998; Ryan & Pintrich, 1997).

Interestingly, low achieving students have been found to be less likely to ask for help than high achieving students (Newman & Schwager 1993; Ryan, Patrick, & Shim, 2005). In essence, students who would benefit the most from help seeking are the students who have been found to be the least likely to seek help. Thus, the reluctance to seek help may prevent low achieving students from overcoming academic deficiencies, and cause them to fall farther behind their higher achieving peers (Knapp & Karabenick, 1988). These studies provide evidence that help seeking behavior is beneficial to students.

Unfortunately, as noted, not all students who need help seek help (Good, Slavings, Harel, & Emerson, 1987; Karabenick, 2003; Newman & Goldin, 1990). Some students may not seek help because they do not realize they need help. The help seeking process cannot begin without the feeling of perplexity (Nelson-Le Gall, 1981). A student's perception of need for help is directly related to their metacognitive ability and prior knowledge of the domain. Both metacognitive ability and prior knowledge increase during cognitive development and serve to explain why help seeking requests become more accurate as children develop cognitively (Newman, 1994; Puustinen, 1998).

Once aware of the need to seek help, an individual must make the decision of whether or not to seek help. Since help seeking is a self-regulated learning strategy, the process is intentional (Newman, 2000; Karabenick & Knapp, 1991; Karabenick, 2004). However, students differ in their help seeking tendencies, which are influenced by student motivation, perceived help seeking threat, and the classroom environment (Ryan, Pintrich, & Midgley, 2001).

Avoidant and Adaptive Help Seeking Profiles

Two types of help seeking profiles dominate the literature: adaptive and avoidant (Butler, 1998; Newman, 2002; Newman & Schwager, 1995; Ryan, Gheen, & Midgley, 1998; Ryan & Pintrich, 1997; Ryan & Shin, 2011). Students with adaptive help seeking tendencies, seek help when help is needed and several factors have been shown to predict adaptive help seeking tendencies including high achievement, high self-esteem, and high self-efficacy (Roll, Alevan, McLaren, & Koedinger, 2011; Ryan & Shin, 2011).

Individuals with adaptive help seeking tendencies seek help more often than avoidant help seekers. A possible reason for this occurrence is the notion that adaptive help seekers do not believe that acts of seeking help reflect their true ability level (Ryan, Pintrich, & Midgley, 2001). In other words, seeking help from others is not an indication of incompetence and does not drastically reduce self-esteem.

Avoidant help seekers, on the other hand, view the process of help seeking differently. Avoidant help seekers have the tendency to not seek help when help is needed (Newman, 2006; Ryan, Gleen, & Midgley, 1998; Ryan & Pintrich, 1997). Ryan, Pintrich, & Midgely (2001) reviewed factors that contribute to avoidant help seeking tendencies and found that these students often possessed a low perception of their cognitive or social abilities, identified themselves with a performance goal orientation, and were extremely concerned with the opinions of their peers and teachers. Since individuals with avoidant help seeking tendencies often believe that asking for help is an indication of incompetence, these individuals may be reluctant to seek help in an attempt to hide their weaknesses from others.

Unfortunately, failing to ask for help when help is needed may cause the student to not fully understand the concept or material being taught. Therefore, avoidant help seeking behaviors have been linked to poor academic performance and are consequently less desirable than adaptive help seeking behavior (Karabenick & Knapp, 1991, Ryan, Hicks, & Midgley, 1997, Ryan, Pintrich & Midgley, 2001).

Motivation and Help Seeking

Motivation plays a significant role in whether a student will seek help. Researchers from several theoretical perspectives have examined relations among motivation and help seeking. For example, according to achievement goal theory, there are two primary types of achievement goal orientations: mastery and performance (Ames & Archer, 1988). Mastery oriented students concern themselves with goals that help them gain individual knowledge or proficiency in a skill. These students are not primarily motivated by external notions of success, such as ranking at the top of the class. Consequently, mastery oriented students are more likely to seek help adaptively as these students believe that seeking help would allow them to learn the instructional content (Kozantis, Desbiens, & Chouinard, 2007; Roussel, Elliot, Feltman, 2011).

Conversely, performance oriented students are concerned with achieving goals that allow them to demonstrate their success, knowledge, or ability to others. (Ames & Archer, 1988). As a result performance oriented students are more likely to avoid seeking help because seeking help could potentially make them appear incompetent in front of their teacher(s) and peers (Karabenick, 2004; Roussel, Elliot, Feltman, 2011; Ryan, Gheen, & Midgley, 1998).

Attribution theory adds another perspective to the relations among help-seeking and motivation. According to this theory, students who avoid seeking help attribute their performance to more external factors such as luck and task difficulty (Magnusson & Perry, 1992). On the other hand, students who seek help more frequently attribute their performance to effort, a high ability attribution in academics in general, and a high ability attribution for the task or subject (Ames & Lau, 1982).

However, Butler (1998) and Magnusson & Perry (1992) both found that students who attributed their performance mostly to ability would ask for help only in order to get the correct answer and were less concerned with actually learning the material. These results indicated that only possessing ability attributions may not lead to adaptive help seeking.

The relationship between ability attributions and help seeking may also be influenced by a student's self-efficacy and self-esteem, which are both indicators of an individual's perception of him or herself. Research indicated that students with low self-esteem were more likely to avoid seeking help than students with high self-esteem (Karabenick, 2003; Karabenick & Knapp 1991; Ryan & Pintrich, 1997). Many students felt that asking for help was an indication of incompetence. Fortunately, students with high self-esteem did not believe that asking a question was an indication of their true ability and as a result did not hesitate to seek help. However, students with low self-esteem worried that asking questions would draw attention to their truly low ability (Newman & Goldin, 1990; Ryan, Gheen, & Midgley, 1998). In other words, students with low self-esteem perceived more help-seeking threat.

Help Seeking Threat

Help seeking threat has been defined as the perceived loss of status or esteem that results from seeking help, often publicly, from the teacher or peers. One result is embarrassment or feelings of indebtedness (Fisher, Nadler, & Whicher-Algana, 1981). Therefore, while seeking help the mere presence of teachers or peers increases perceived help seeking threat.

Additionally, in unfamiliar learning environments, teachers and peers are more threatening as students feel less comfortable and supported (Nelson-Le Gall & Glor-Scheib, 1983; Ryan, Pintrich, & Midgley, 2001). Finally, classrooms that focus on competition and utilize norm-based evaluations also make help seeking more threatening because no one wants to appear inferior (Ryan, Pintrich, & Midgley, 2001; van der Meij, 1988).

Avoidant help seekers perceive help seeking to be more threatening than adaptive help seekers, which partially explains their different rates of question asking behavior (Karabenick & Newman, 2009). However, many factors including gender, age, perceived social competence, and perceived cognitive competence complicate how help seeking threat is perceived (Ryan, Pintrich, & Midgley, 2001).

For example, as students get older, they care more about the opinions of their peers and teachers, and therefore, threat tends to increase as students age (Newman, 1990). Additionally, there is evidence that males perceive more threat when asking questions than do females, as they perceive help seeking to be a more feminine activity. However, this appears to vary across domains (Newman & Goldin, 1990; Roussel, Elliot, & Feltman, 2011). For example, one study indicated that males felt less threat in math class than females (Newman, 2003). This may be a result of the belief that asking for help demonstrates that they are unknowledgeable or incapable in an area that they stereotypically are believed to be unknowledgeable or incapable.

In general, students who believe they are less competent often perceive more threat, and the characteristics of the helper and the learning environment influence the perceived amount of help seeking threat (Nelson-Le Gall & Glor-Scheib, 1983; Newman, 2003; Ryan, Pintrich, & Midgley, 2001).

Preferred Sources of Help

Clearly, there are multiple factors that influence a student's decision to seek help. However, in order to seek help, a source of help must be available (Nelson-Le Gall, 1981; 1985). The act of choosing a help source is the third step of Nelson Le-Gall's (1981) help seeking process. Traditionally, two sources of help existed in the classroom, the teacher and peers. Several studies evaluated which of these sources was more related to help seeking threat.

As one example, Newman & Goldin (1990) conducted structured interviews with sixty-five, second, third, and sixth-grade children in California. The interview findings indicated that children seemed to prefer seeking help from the teacher because students believed that the teacher was less likely to think that they were dumb and more likely to be able to help them than were their peers. A follow-up study conducted by Newman & Schwager (1993) confirmed these results and also reported that the preference to seek help from the teacher got stronger in later grades as older students indicated that they were more concerned with the competence level of the helper than were younger students.

In a similar study, van der Meij (1988) examined other reasons that students may not seek help in class. The researcher conducted forty-nine structured interviews with third and fifth graders in the Netherlands and found that 60% of students indicated that they would hesitate to

ask questions when they were unsure if the helper could actually help them. Concerns with both the helper's knowledge base and instructional ability were the most prevalent; thus adding more credence to Newman & Goldin's (1990) findings that teachers are perceived as a better source of help than peers for students in elementary and secondary schools.

However, when students arrive in college, peers become the least threatening and the more preferred source of help (Karabenick & Knapp 1991; Keefer & Karabenick, 1998; Knapp & Karabenick, 1988). College students may never develop a close relationship or become comfortable interacting with professors, especially in large classrooms, which may explain why the help seeking preference changes across the levels of education (Alexitch, 2002). Older students may even view waiting for help as a waste of time, and would rather move on and complete other work instead of waiting for help from a busy instructor (Van der Meij, 1988).

Overall, these studies indicate that the level of threat related to a source of help depends on the age of the student as well as other environmental conditions. One source is always preferred to another and threat exists as a result of the presence of both teachers and peers. Therefore, if an instructor could provide a help seeking option that allows students to seek help more anonymously, it follows that help seeking behavior should increase because it could potentially be less threatening (Kistantas & Chow, 2007; Roschelle, et al, 2000).

Help Seeking Options

While help seeking sources indicate who students seek help from, help seeking options are how students can seek help. According to Nelson-Le Gall's (1981) five step help seeking process, the fourth step is that students need to implement a strategy for seeking help. Part of

determining a strategy to seek help is determining how to ask the question. Traditionally, students only had the ability to help seek in person, either by raising their hand during class or going to see the instructor after class or during designated office hours.

However, new help seeking options, specifically those available through the use of enhanced technologies allow students to seek help in a different manner and offer more privacy (Aleven, et al., 2003; Puustinen, Bernicot, & Bert-Erboul, 2011; Puustinen & Rouet, 2009). Since help seeking threat can be generated by the presence of other individuals such as peers or teachers, new technology based, help seeking options could potentially reduce the perceived threat of help seeking if they allowed students so seek help more anonymously (Keefer & Karabenick, 1998).

Aleven et al. (2003) reviewed the literature that examined help seeking and technology. Their review reported that a majority of the research focused on computer based instruction with specialized programs that included on-demand help features. The on-demand features permitted students to ask for help at any time and receive it immediately, thereby alleviating the frustration of waiting for help. Instantaneous help was usually generated from the software's programming, and as a result the programs were designed to only teach a certain curriculum. The type of immediate help response offered differed by program. Specific help features included hints, hyperlinked content, imbedded glossaries, and providing the next steps in worked examples.

General results from the literature indicated that students who used the on-demand help features showed increases in their achievement. However, relatively few students utilized the help features unless they were taught about what kinds of help were available to them (Aleven, et al., 2003). When students received a tutorial that highlighted the type and purpose of help that

was available, they became more frequent help seekers and achievement increased (Aleven & Koedinger, 2001).

Since students did not immediately use the new help seeking sources, the benefits of the on-demand help features must not have been intuitively obvious to students. This was not a surprising finding, as students in classrooms with instruction that is not delivered via technology must also recognize that help is available and beneficial before they decide to seek help (Nelson-Le Gall, 1981).

On-demand help seeking features clearly possess benefits to students. The features in these programs could potentially increase help seeking behavior in students, as these programs would allow students to click a button and receive needed help immediately, from a competent, nonjudgmental computer source. However, the overall development time and cost of such programs may make them difficult to utilize in every subject or course, and the help that is offered via these programs may not be as versatile as the help that a competent instructor could offer.

Additionally, some students demonstrated the tendency to ‘game’ the computer programs in order to get the correct answers more quickly, without actually understanding the material being covered (Beal, Qu, & Lee, 2008; Puustinen & Rouet, 2009). In other words, students requested help repeatedly, until either the computer eventually just gave them the answer or until the program stopped offering help. Accordingly, an overreliance on automated help may sometimes actually impede learning.

As a result, the help sought using on-demand help seeking programs should be monitored by an instructor, and may even be best used as an additional help seeking option in conjunction with other sources or options of help that are also available to students in the classroom.

Help Seeking with Communication Technology

While on-demand help as found in self-contained technology based instructional environments may not always be available to learners in all settings, many teachers and professors are able to use other forms of technology as a help seeking tool by responding to student questions from a variety of options. However, while a growing number of research studies focus on help seeking using technology with on-demand help seeking features, there are relatively few studies that examine how other communication technology, such as email, relates to help seeking tendencies and help seeking threat (Kistantas & Chow, 2007; Puustinen et al., 2011; Putstinen & Rouet, 2009). The present study seeks to explore this idea, which is an important part of the help seeking process and the fourth step in Nelson-Le Gall's (1981) five steps of help seeking.

Instructors, especially in higher education settings, usually offer several different help seeking options to their students. The traditional options such as allowing students to ask questions before, after, or during class cannot really be eliminated, as long as the instructor is physically present in the classroom. Additionally, most instructors have hours, outside of the designated class time (before or after school, during study hall, or specified office hours), during which they make themselves available so students can seek additional help. In some classes, teaching assistants also provide primary instruction, offer additional study or practice sessions, hold office hours, and respond to student questions before or after class.

In conjunction with these traditional options, some instructors provide their students other options for seeking help using communication technology. Instructors frequently share their email address with students and some even provide online discussion boards for students to post

questions at their convenience. Additionally, instructors may provide students with online office hours via web camera or instant messaging services. These are just some of the examples of help seeking options that instructors may provide to students using technology.

The technologically based help seeking options provide a varying degree of access to the help seeking behavior of peers. Some of the options allow peers and the instructor to view the help requests made by other students, while other options are strictly private interactions between the help seeker and helper. For some help seeking options the settings may even be adjusted to allow students to seek help in complete anonymity, thus having the potential to greatly reduce the help seeking threat. This is a critical consideration because help-seeking in public is a cause of threat, so more privacy and anonymity in the help seeking process may result in an increase in help seeking behavior. In this regard, technology based help options may have a perceived advantage to learners as their help requests may be done more privately.

The Present Study

Because different help seeking sources and options coexist in many classrooms, determining which source of help students prefer to use, as well as what help seeking option students prefer to use would provide instructors with information on how to allocate their resources in order to reduce the threat of seeking help in order to benefit the students the most with different help seeking profiles and different perceptions of help seeking threat prefer to use. The present study explores five research questions. The questions and hypotheses are as follows:

Research Question 1: Do self-reported preferences of help seeking options and sources relate to intended help seeking behavior?

Several researchers have conducted class observations or interviews to measure help seeking behavior in elementary and secondary school students (Nelson-Le Gall 1981; Nelson-Le Gall, Glor-Scheib, 1983; Newman & Goldin, 1990). However, help seeking behavior has typically been measured using self-report options (Karabenick, 2004; Karabenick & Knapp, 1991; Ryan, et al., 2009; Ryan, Gheen, & Midgley, 1998; Ryan, Patrick, & Shim, 2005; Ryan & Pintrich, 1997). Unfortunately, self-report options may not be the most accurate way to measure a construct. Ideally, help seeking behavior would be measured observationally; however, it can be a difficult behavior to observe especially in college classrooms where teacher-student conversational interactions may be rare occurrences (Karabenick & Knapp, 1991; Karabenick, 2004).

Therefore, in this study, students will be asked to self-report the number of times they utilized each help source and option. Students will also be asked to rank their most preferred help seeking sources and options. The self-reported frequencies and ranks will be correlated in an attempt to ensure that the student self-reported scores resemble intended help seeking behavior.

Research Question 2: How do students' help seeking profiles relate to each of the preferred help seeking options?

Based upon previous studies, it is expected that adaptive help seekers will not necessarily have a preferred help seeking option, but will rate all of the help seeking options higher than avoidant help seekers (Aleven, et al., 2003). Avoidant help seekers will prefer to use the online options for help seeking as those options offer great anonymity and will relate less to threat (Kistantas & Chow, 2007; Roschelle, et al, 2000; Ryan, Pintrich, & Midgley, 2001).

Research Question 3: How do students' help seeking profiles relate to each of the preferred help seeking source?

Based upon previous studies, it is expected that all students, regardless of their help seeking profile will prefer to seek help from the peers over the instructor and teaching assistants because college students prefer informal help sources (Karabenick & Knapp 1991; Keefer & Karabenick, 1998; Knapp & Karabenick, 1988). However, avoidant help seekers will rate all sources of help lower than adaptive help seekers (Ryan, Pintrich, & Midgley, 2001).

Research Question 4: How does perceived help seeking threat relate to each of the preferred help seeking options?

Based on previous studies, it is expected that all students who possess a low help seeking threat for the course will not have a preferred help seeking option; however, students who possess a high help seeking threat for the course will prefer to seek help using the online help seeking options because the online options offer great anonymity (Kistantas & Chow, 2007; Puustinen & Rouet, 2009; Roschelle, et al, 2000).

Research Question 5: How does perceived help seeking threat relate to each of the preferred help seeking sources?

Based on previous studies, it is expected that all students who possess a low help seeking threat for the course will not have a preferred help seeking source. Students who possess a high help seeking threat for the course, however, will prefer to seek help from peers because peers are a less formal help source (Karabenick & Knapp 1991; Keefer & Karabenick, 1998; Knapp & Karabenick, 1988).

Chapter 3

METHODS

Participants

Participants were recruited from two sections of an introductory Educational Psychology course at a large research university on the east coast of the United States. In the first section, 137 participants agreed to participate in the study. In the second section 93 participants agreed to participate in the study. However, two participants from each section did not complete the study and were excluded from any analysis. As a result, the final sample consisted of 226 participants. Males constituted 18.58% of the sample (n=42) and females constituted 81.42% of the sample (n=184). Participants were students enrolled from thirty three different majors.

Measures

Participants completed an online survey with 105 items that was administered by Qualtrics, an online survey presentation website (Qualtrics Labs Inc., 2009). When a participant completed a section, they were prompted to provide a response to any items left unanswered. While the participants were not required to respond to any item, all 226 students responded to all of the items.

There were five sections of questions: demographic information; help seeking frequencies; help seeking threat and help seeking profiles; intention to seek help from difference sources; and intention to seek help using different options.

Demographic Information.

The first section asked for general demographic information demographic information, including section number, major, and expected grade in the class. The questions from this section are located in Appendix A.

Help Seeking Frequencies.

In the second section, participants were asked to indicate how frequently they utilized each of the help seeking options that were available in the class. All of the questions that are referred to in this section are located in Appendix B. Participants were given five frequencies to choose from; zero times, one time, two times, three times, four times, or five or more times. The help seeking options that were included were seeking help on the online discussion board, during professor's office hours, during a teaching assistant's office hours, during online office hours (conducted by the professor), from the professor before or after class, from a teaching assistant before or after class, during class, via email from the professor, and via email from a teaching assistant.

Participants were then asked to indicate the help source they preferred to seek help from in the class. To accomplish this, students were asked to rank order the help sources available for the class from one (most preferred) to four (least preferred). The help sources available to the participants were the professor, the graduate student teaching assistants, their peers, or an outside source.

The next set of questions asked the participants to rank order the help seeking options that they preferred to seek help with. To accomplish this, students were asked to rank order, from one (most preferred) to six (least preferred), the help seeking options available for the class, which were email, discussion board, in class, before or after class, during office hours, or during online office hours.

Help Seeking Threat and Help Seeking Profiles.

The third section of the survey had three scales. All of the scales in the section consisted of a number of five point Likert questions (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5= strongly agree).

The first scale measured self-reported help seeking threat (Appendix C). The scale was adapted from a measure used in a study conducted by Karabenick & Knapp (1991). The original measure consisted of six items ($\alpha=.74$; sample item: "I would prefer that my professors not find out that I went for tutoring"). The adapted scale used in this study consisted of fourteen items ($\alpha=.942$). All of the items in the adapted scale were situated in the context of the class from which the participants were recruited. The seven additional questions in the adapted scale were all alterations of the last item used in the original measure. These additional items were changed to correspond to class context and the sources of help that were available to the students (sample item: "I prefer that my classmates in this class not find out that I go to the teaching assistants for help").

The second scale measured self-reported adaptive help seeking behavior (Appendix D). The scale was adapted from a measure used in a study conducted by Ryan & Pintrich (1997).

The original measure consisted of five questions ($\alpha=.77$). The adapted scale that was used for this study also consisted of five questions ($\alpha=.74$). All of the items in the adapted scale were situated in the context of the class from which the participants were recruited (sample item: If there is something I do not understand in this class, I prefer someone give me hints or clues rather than the answer).

The third scale measured self-reported avoidant help seeking behavior (Appendix E). The scale was adapted from a measure used in a study conducted by Karabenick (2001). The original measure consisted of three items ($\alpha=.77$; sample item: “If I didn’t understand something in this class I would guess rather than ask someone for assistance”). The adapted scale that was used for this study consisted of five questions ($\alpha=.86$). All of the items in the adapted scale were situated in the context of the class from which the participants were recruited. The additional item in the adapted scale was an alteration of the first question in the original measure. This new item was changed to correspond to the class context and the help sources available to the students (sample item: “If I do not understand something in this class, I prefer to guess rather than ask a teaching assistant for assistance”).

Intention to Seek Help Scales from Different Sources.

The fourth section of the survey contained three scales that measured self-reported intentions to seek help from different help sources. All of the scales consisted of parallel items that were adapted from a measure used in a study conducted by Newman (1990). The original scale consisted of nine items ($\alpha=.73$). All of the items in the adapted scales were situated in the

context of the class from which the participants were recruited, and each of the three scales referred to a specific help seeking source that was available to the participants.

Each of the three adapted scales consisted of nine items. The scales measured self-reported intention to seek help from the teacher ($\alpha=.95$; sample item: “How likely am I to ask the teacher in this class for help when I have done a problem or activity but am not sure of the answer?”) (Appendix F), self-reported intention to seek help from a graduate student teaching assistant ($\alpha=.97$; sample item: “How likely am I to ask a graduate student teaching assistant in this class for help when I have done a problem or activity but am not sure of the answer?”) (Appendix G), and self-reported intention to seek help from a classmate ($\alpha=.95$; sample item: “How likely am I to ask a classmate in this class for help when I have done a problem or activity but am not sure of the answer?”) (Appendix H). To reduce response bias, the order of the three scales was randomized, and the questions within each scale were randomized.

Intention to Seek Help Scales using Different Options.

The fifth section had six scales that measured self-reported intentions to seek help using different options. All of the scales consisted of parallel items that were adapted from the same measure from which the scales in the fourth section were adapted (Newman, 1990). The original scale consisted of nine items ($\alpha=.73$). All of the items in the adapted scales were situated in the context of the class from which the participants were recruited, and each of the three scales referred to a specific help seeking option that was available to the participants.

The six adapted scales each consisted of seven items. Two items were deleted from the original measure because the question became nonsensical when a reference to a specific help

seeking option was added. The scales measured self-reported intention to seek help on an online discussion board ($\alpha=.97$; sample item: “How likely am I to post a question on the online discussion board in this class for help when I think I might get a bad grade if I do not get help?”) (Appendix I), self-reported intention to seek help during office hours ($\alpha=.95$; sample item: “How likely am I to ask a question during office hours in this class for help when I think I might get a bad grade if I do not get help?”) (Appendix J), self-reported intention to seek help during online office hours ($\alpha=.97$; sample item: “How likely am I to ask a question during online office hours in this class for help when I think I might get a bad grade if I do not get help?”) (Appendix K), self-reported intention to seek help before or after class ($\alpha=.94$; sample item: “How likely am I to ask a question before or after class in this class for help when I think I might get a bad grade if I do not get help?”) (Appendix L), self-reported intention to seek help during class ($\alpha=.95$; sample item: “How likely am I to ask a question on during class in this class for help when I think I might get a bad grade if I do not get help?”) (Appendix M), and self-reported intention to seek help via email ($\alpha=.94$; sample item: “How likely am I to ask a question via email in this class for help when I think I might get a bad grade if I do not get help?”) (Appendix N). The order of the scales was randomized, and the questions within each scale were randomized.

Procedure

The study was submitted to the institutional review board under the expedited review category. The study was assigned IRB Protocol number 38332 and was approved on November 7, 2011 (Appendix O). Once the study was approved, the author recruited participants from an introductory educational psychology class (Appendix P). The semester was nearly halfway complete at the time of recruitment to ensure that the participants were familiar with the different

help sources and options. Participants were given three weeks from the time of recruitment to complete the survey.

Participants gave implied consent to participate in the study by logging into Qualtrics, a survey presentation website. The participants were required to enter Qualtrics via a link provided on the course management website to ensure that only students in the class participated (Qualtrics Labs Inc., 2009). Further, the survey was password protected to ensure that only students from the introductory class could participate. Students were then required to provide their email address to ensure that students did not attempt to complete the survey more than one time.

After completing these steps, the participants completed the online survey. Participants could log into the website at any time, on any computer with internet access and could take as much time as they needed to complete the survey. However, the survey needed to be completed all in one sitting.

Participants were given extra credit worth one percent of their final grade to participate in the study. Extra credit was awarded at the end of the semester. An alternative assignment was offered for an equal amount of extra credit to ensure that students were not coerced into participating in the research study.

Chapter 4

RESULTS

Data were analyzed using SPSS software. In the following chapter, the analyses for the five research questions will be presented individually.

Research Question 1: Do self-reported preferences of help seeking sources and options relate to intended help seeking behavior?

First, descriptive statistics of frequencies and rank orders were evaluated and are presented in Tables 1 through 3.

Table 1: Means and standard deviations for the self-reported frequency of seeking help

Name of Source/Option	Mean	Standard Deviation
Teaching Assistant Office Hours	1.19	.62
Professor Office Hours	1.20	.56
Online Office Hours	1.09	.40
Teaching Assistant Before or After Class	1.52	1.02
Professor Before or After Class	2.00	1.25
During Class	2.22	1.55
Teaching Assistant Email	1.42	.99
Professor Email	1.64	1.09
Discussion Board	1.93	1.31
Classmate	4.60	1.68
Outside Source	2.34	1.80

Note: N=226

The most frequently used option or source of help was clearly the classmate ($M = 4.60$, $SD = 1.68$), and the least frequently used options and sources of help included online office

hours ($M = 1.09$, $SD = .40$), the teaching assistants' office hours ($M = 1.19$, $SD = .62$), and the professor's office hours ($M = 1.20$, $SD = .56$) (Table 1). The results indicated that receiving an immediate response to an inquiry was important as students utilize sources and options that allowed them to ask questions immediately rather than waiting for office hours. This is consistent with previous research conducted by van der Meij (1988), which indicated that older students may rather move on to other work rather than waiting for help from a busing instructor.

Table 2: The participants' ranking of preferred help seeking sources

Name of Source	Rank 1	Rank2	Rank3	Rank 4
Teaching Assistants	20	73	95	38
Professor	47	87	58	34
Classmate	147	24	47	8
Outside Source	12	42	26	146

Note: $N=226$

1= the most preferred source and 6=the least preferred source

When asked to rank order their preferred source of help, the participants indicated that they preferred to seek help from their classmates the most (Table 2). The next most preferred source was the professor, followed by the teaching assistants, and then an outside source. The result was not surprising in a classroom with a large number of students, as the students may not be able to ask the professor a question as quickly or easily as they can ask their peers.

Table 3: The participants' rankings of preferred help seeking options

Name of Source/Option	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6
Office Hours	30	32	61	61	23	19
Online Office Hours	3	5	23	40	89	66
Before or After Class	72	98	35	14	3	4
During Class	79	49	34	25	18	30
Email	39	38	64	55	19	11
Discussion Board	3	13	9	31	74	96

Note: $N=226$

1= the most preferred source and 6=the least preferred option

When asked to rank order their preferred help seeking option, the data indicated that the students preferred to seek help either during class or before or after class (Table 3). The third most preferred help seeking option was via email, and the fourth most preferred option was in person office hours. Finally, the two least preferred options, which rated far below the other four, were online office hours and the discussion board. Again, these results suggest that the participants preferred options that allowed them to ask questions when they first arose rather than waiting to ask for help or waiting for a reply. Interestingly, the in person options appear to rank higher than the online help seeking options, which is surprising as the online help seeking options, should provide more anonymity.

The next set of analyses were conducted in an attempt to evaluate whether or not self-reported preferences of help seeking options and sources related to actual help seeking behavior. Since observing help seeking tendencies and behaviors is difficult, many researchers have used self-report items and scales to measure help seeking, and it is important to ensure that the self-report measures reflect actual behavior (Karabenick, 2004; Karabenick & Knapp, 1991; Ryan, et al., 2009; Ryan, Gheen, & Midgley, 1998; Ryan, Patrick, & Shim, 2005; Ryan & Pintrich, 1997). In order to examine this question, two sets of Spearman-Rank order correlations were calculated from the self-reported help seeking frequencies and the self-reported preferred rankings.

The first set of Spearman-Rank order correlations were calculated between the participants' self-reported frequency of seeking help and the participants' rankings of which option they preferred to seek help from (Table 4). Since there were some help seeking options that could be utilized by seeking help from different sources, all of the frequencies that contained multiple sources, such as email, office hours, and office hours were summed, then converted to z-scores. The options that did not have multiple sources were also converted to z-scores.

Spearman-Rank order correlation coefficients were calculated between the z-scores and the participants' ranking of their preferred help seeking options. The ranks were reverse coded so a higher number indicated a higher preference.

Table 4

Correlations of the Help Seeking Frequencies of using an Option with the Ranking of the same Option

Name of Option	Correlation Coefficient
Online Discussion Board	.24*
Office Hours	.39*
Online Office Hours	.08
Before or After Class	.21*
During Class	.17*
Email	.09

*. Correlation is significant at the 0.05 level (2-tailed)

Significant correlations were found between the frequency of seeking help during office hours and the ranked preference seeking help during office hours $r(226) = .39, p < .0001$; the frequency of seeking help before or after class and the ranked preference of seeking help during before or after class $r(226) = .21, p = .001$; the frequency of seeking help during class and the ranked preference seeking help during class $r(226) = .17, p = .011$; and the frequency of seeking help on the discussion board and the ranked preference seeking help on the discussion board $r(226) = .24, p < .0001$.

Interestingly, all of the significant correlations were positive, which may indicate that help seeking preferences corresponded with intended help seeking behavior. A positive correlation between preference and frequency denoted that help seeking behavior increased when the participants preferred utilizing the option. The findings suggest that overall help seeking preferences seemed to correspond with self-reported help seeking behavior.

The second set of Spearman-Rank order correlations were calculated between the self reported frequency of seeking help and the rankings indicating from which source the participants preferred to seek help (Table 5). Since there were some help seeking sources that could be utilized by seeking help by using different options, all of the frequencies that related to seeking help from a teaching assistant and the professor were summed, then converted to z-scores. The sources that did not have multiple options were also converted to z-scores. Spearman-Rank order correlation coefficients were calculated between the z-scores and the participants' ranking of preferred help seeking sources. The ranks were reverse coded so a higher number indicated a higher preference.

Table 5
Correlations of the Help Seeking Frequencies of using a Source with the Ranking of the same Source

Name of Option	Correlation Coefficient
Classmates	.29*
Outside Source	.38*
Teaching Assistant	.27*
Professor	.31*

*. Correlation is significant at the 0.05 level (2-tailed)

The results indicated significant correlations between the frequency of seeking help from the professor and the ranked preference of seeking help from the professor $r(226) = .31, p < .0001$; the frequency of seeking help from the teaching assistant and the ranked preference of seeking help from the assistant $r(226) = .27, p < .0001$; the frequency of seeking help from classmates and the ranked preference of seeking help from classmates $r(226) = .29, p < .0001$; and the frequency of seeking help from an outside source and the ranked preference of seeking help from an outside source $r(226) = .38, p < .0001$.

All of the significant correlation coefficients were positive, which indicated that when the intended help seeking behavior increased when the participants preferred seeking help from a source increased. The findings suggest that overall help seeking preferences seemed to correspond with self-reported help seeking behavior.

Research Question 2: How do the students' help seeking profiles relate to each of the students' preferred help seeking options?

In order to address the final four research questions, the data collected in the third and fourth sections of the instrument or survey were analyzed. These scales contained items that measured self-reported help seeking threat, help seeking profiles, the intention to seek help from different sources, and the intention to seek help scales using different options. All of these scales consisted of items on a five point Likert Scale. Descriptive statistics for these scales will be reported followed by correlation analyses that correspond to each of the research questions.

Table 6
Means and standard deviations for help seeking threat and the help seeking profiles scales

Name of Scale	Mean	SD	Number of Items	Maximum Possible Score
Help seeking Threat	24.97	8.67	14	70
Adaptive Help seeking	18.97	2.82	5	25
Avoidant Help seeking	8.24	3.13	4	20

Note: N=226

The means and standard deviations for the scales that measured intention to seek help from different sources are presented in Table 7. Results indicated that participants in this sample

intended to seek help from classmates (M=39.59) more than from the professor (M=31.40) or a teaching assistant (M=28.54).

Table 7

Means and standard deviations for the intention to seek help from different sources scales

Name of Source	Mean	Standard Deviation
Professor	31.40	8.53
Teaching Assistant	28.54	10.32
Classmate	39.59	6.40

Note: N=226

The maximum score possible for all scales is 45

The means and standard deviations for the scales that measured intention to seek help using different options are presented in Table 8. Results indicated that participants in this sample most frequently intended to ask for help before or after class (M=26.19) or via email (M=25.87), and least frequently on the online discussion board (M=15.31) or during online office hours (M=16.95)

Table 8

Means and standard deviations for the intention to seek help using different options scales

Name of Option	Mean	Standard Deviation
Online Discussion Board	15.31	7.48
Office Hours	22.59	7.61
Online Office Hours	16.95	8.23
Before or After Class	26.19	6.04
During Class	21.76	7.98
Email	25.87	6.57

Note: N=226

The maximum score possible for all scales is 35.

In order to test the second research question, Pearson correlation coefficients were calculated between scores on the adaptive help seeking scale and scores on the six self-reported intention to seek help using different help seeking option scales. Results are presented in Table 9. Statistically significant correlations were found between adaptive help seeking and the intention to seek help during office hours, $r(224) = .22, p = .0001$, adaptive help seeking and the intention to seek help during class, $r(224) = .22, p = .029$, and between adaptive help seeking and the intention to seek help before or after class $r(224) = .17, p = .005$. However, after conducting a Bonferroni adjustment for the number of tests, the adjusted alpha level became .0019 (.05/27), which resulted in only one significant correlation between adaptive help seeking and the intention to seek help during office hours..

Regardless, all of the correlations, were positive, which illustrated that in general; participants with more adaptive help seeking tendencies possessed a greater intention to seek help.

Similarly, correlations were calculated between scores on the avoidant help seeking scale and scores on the six self-reported intention to ask questions using different options scales. Results are presented in Table 9. Significant correlations were found between avoidant help seeking and the intention to seek help during office hours, $r(224) = -.31, p < .0001$, avoidant help seeking and the intention to seek help before or after class, $r(224) = -.44, p < .0001$, and avoidant help seeking and the intention to seek help during class $r(224) = -.29, p < .0001$. A Bonferroni adjustment was calculated to adjust for the number of tests. As a result, the adjusted alpha level becomes .0019 (.05/27), and the same correlations are significant with the adjusted alpha level. Additionally, all of the significant correlations were negative indicating that when scores on one decrease, students with more avoidant help seeking tendencies intended to seek help less.

Table 9

Correlations of Help seeking Profiles with the Intention to Use Different Options

Name of Option	Adaptive Help seeking	Avoidant Help seeking
Online Discussion Board	.08	.01
Office Hours	.22**	-.31**
Online Office Hours	.07	-.02
Before or After Class	.17*	-.44**
During Class	.13*	-.29**
Email	.11	-.08

*. Correlation is significant at the 0.05 level.

** Correlation is significant after using a Bonferroni adjustment to correct for 27 tests; $\alpha=.0019$

Overall, the results of these analyses indicated that students with avoidant help seeking tendencies did not intend to seek help using in person help seeking options. While adaptive help seekers did intend to seek help using in person help seeking options. However, neither profile showed any indication of intending to use online help seeking options.

Research Question 3: How do the students' help seeking profiles relate to each of the students' preferred help seeking sources?

Pearson correlation coefficients were calculated between scores on the adaptive help seeking scale and scores on the three self-reported intention to seek help from different sources. Results are presented in Table 10. Significant correlations were found between adaptive help seeking and the intention to seek help from the professor, $r(224) = .28, p < .0001$, between adaptive help seeking and the intention to seek help from a teaching assistant, $r(224) = .14, p = .037$, and between adaptive help seeking and the intention to seek help from classmates, $r(224) = .13, p = .044$. A Bonferonni adjustment was calculated to correct for the number of correlational

tests. The corrected alpha value became .0019 (.05/27) and resulted in only one significant correlation between adaptive help seeking and intention to seek help from the professor. All of these correlations were in the expected direction and indicated that when students score high on the adaptive help seeking scale, they also reported a higher intention to seek help, regardless of the source.

Correlations were also calculated between scores on the avoidant help seeking scale and scores on the three self-reported intention to seek help from different sources. Results are presented in Table 10. Significant correlations were found between avoidant help seeking and the intention to seek help from the professor, $r(224) = -.48, p < .0001$, between avoidant help seeking and the intention to seek help from a teaching assistant $r(224) = -.34, p < .0001$, and between avoidant help seeking and the intention to seek help from classmates, $r(224) = -.14, p < .032$. A Bonferroni adjustment was calculated to correct for the number of correlational tests. The corrected alpha value became .0019 (.05/27) and caused the correlation between avoidant help seeking and the intention to seek help from classmates to become non-significant. However, all of the correlation coefficients were also in the expected direction, indicating the inverse relationship between avoidant help seeking tendencies and intentions to seek help regardless of the source of help that is available.

Table 10
Correlations of Help seeking Profiles with the Intention to Seek Help from Different Sources

Name of Source	Adaptive Help seeking	Avoidant Help seeking
Professor	.28**	-.48**
Teaching Assistant	.14*	-.34**
Classmates	.13*	-.14*

*. Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant after using a Bonferroni adjustment to correct for 27 tests; $\alpha = .0019$

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Overall, the results confirmed that avoidant and adaptive help seekers differed in their intention to seek help from all sources. In particular, the two profiles differed in their intention to seek help from the professor. Students with adaptive help seeking did intend to seek help from the professor, while avoidant help seekers did not.

Research Question 4: How does perceived help seeking threat relate to each of the students' preferred help seeking options?

Pearson correlation coefficients were calculated between scores on the help seeking threat scale and scores on the six self-reported intention to ask questions using different options scales. Results are presented in Table 11. Significant correlations were found between help seeking threat and the intention to seek help during office hours, $r(224) = -.18, p = .004$, between help seeking threat and the intention to seek help before or after class, $r(224) = -.18, p = .004$, and between help seeking threat and the intention to seek help during class, $r(224) = -.14, p < .017$. A Bonferroni adjustment was calculated to adjust for the number of tests. As a result, the adjusted alpha level becomes $.0019 (.05/27)$, and none of the correlations were significant.

Unsurprisingly, the correlation coefficient for the intention to seek help before/after class and during class was negative, thus indicating that when scores on the help seeking threat scale increased, scores on the scales for the intention to seek help with these options decreased. Interestingly, none of the online options produced significant correlations, which suggested that online options of help seeking were not associated with help seeking threat.

Table 11

Correlations of Help seeking Threat with the Intention to Use Different Options

Name of Option	Help seeking Threat
Online Discussion Board	-.02
Office Hours	-.18*
Online Office Hours	.02
Before or After Class	-.18*
During Class	-.14*
Email	-.06

*. Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant after using a Bonferroni adjustment to correct for 27 tests; $\alpha=.0019$

Research Question 5: How does perceived help seeking threat relate to each of the students' preferred help seeking sources?

Pearson correlation coefficients were calculated between scores on the help seeking threat scale and scores on the three self-reported intention to ask questions from different sources. Results are presented in Table 12. Significant correlations were found between help seeking threat and the intention to seek help from professor, $r(224) = -.21, p = .0008$, between help seeking threat and the intention to seek help from a teaching assistant, $r(224) = -.21, p = .0006$, and between help seeking threat and the intention to seek help from a classmate, $r(224) = -.15, p < .011$. A Bonferroni adjustment was calculated to adjust for the number of tests. As a result, the adjusted alpha level became .0019 (.05/27), and there were only two significant correlations: the correlation between help seeking threat and the intention to seek help from the professor and the correlation between help seeking threat and the intention to seek help from a teaching assistant.

All of the correlation coefficients were significant and in the expected direction, thus indicating that when scores on the help seeking threat scale increased, the intention to seek help decreased regardless of the source that was offering help.

Table 12
Correlations of Help seeking Threat with the Intention to Seek Different Sources

Name of Source	Threat
Professor	-.207**
Teaching Assistant	-.214**
Classmates	-.151*

*. Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant after using a Bonferonni adjustment to correct for 27 tests; $\alpha=.0019$

Chapter 5

DISCUSSION

The study examined five research questions with the overall goal of exploring the preferred help seeking sources and options of students in a large college classroom. The questions built upon previous research findings which outlined the motivational profiles of students help seeking profiles (Bulter, 1998; Ryan, Hicks, & Midgley, 1997; Karabenick, 2004). The results of the study also contribute additional information on the help seeking process by providing insight on how students use online and in person help seeking options (Nelson-Le Gall, 1981).

The rest of this chapter contains a summary of the findings for all of the research questions followed by some conclusions that remark on the contributions and limitations of the study and provide a few potential ideas for future research.

Summary of Findings

Research Question 1: Do self-reported preferences of help seeking sources and options relate to intended help seeking behavior?

The results of this study indicated that self-reported help seeking preferences were related to actual help seeking behavior in most cases. All of the Spearman-Rho correlation coefficients indicated that as the self-reported frequency increased, the participants' preference for utilizing a

specific source or option also increased. Even though the coefficients were small, the self-reported rankings also provided the same order of preference as indicated on the three intentions to seek help from different sources scales and the six intentions to seek help using different options scales. Therefore, while self-report measures may not be the ideal measurement option, the data drawn may still be reliable indicators of actual behavior. This study also provides additional ways to tackle the difficult problem of measuring actual help seeking behavior.

The results also indicate that the most frequently sought source of help for students in this particular class was peers. This finding is consistent with the previous findings which indicate that college students prefer to seek help from their peers (Karabenick & Knapp 1991; Keefer & Karabenick, 1998; Knapp & Karabenick, 1988). Similarly, when the students in the sample were asked to rank their preferred source of help, they overwhelmingly chose their classmates. In addition to being less threatening, students may prefer seeking help from their peers instead of from the teaching assistants or the professor because classmates are more accessible when a question arises (Alexitch, 2002).

Students also more frequently utilized the more immediate help seeking options such as asking questions during class, before, or after class, or via email instead of waiting to ask questions during office hours. Interestingly, the students did not rank the online help seeking options very favorably, with email ranked as the third most preferred option, but only marginally above office hours. However, this is consistent with the results of Alevin, et al. (2003) who reported that students often do not use help features in the on-demand programs, unless they are given explicit instruction on their use and benefits.

Research Question 2: How do the students' help seeking profiles relate to each of the students' preferred help seeking options?

The data indicated that avoidant and adaptive help seekers differ in their intention to utilize different help seeking options. Overall, the correlational evidence suggests that adaptive help seekers intend to use help seeking options more frequently than avoidant help seekers, which is consistent with the notion that adaptive help seekers seek help when needed and avoidant help seekers do not (Butler, 1998; Newman, 2002; Newman & Schwager, 1995; Ryan, Gheen, & Midgley, 1998; Ryan & Pintrich, 1997; Ryan & Shin, 2011).

The two help seeking profiles both shared the intention to seek help from office hours as a significant correlation, albeit in opposite directions. Adaptive help seekers did intend to use office hours, while avoidant help seekers did not. Avoidant help seekers also did not intend to utilize the other two in person help seeking options. However, avoidant help seekers were less averse to seeking help using online options as they were to utilizing the in person options. Of course, there was also no indication that they intended to use online help seeking options either.

There are a number of possible conclusions. Avoidant help seekers could potentially be less adverse to use online options to seek help because it offers less threat and greater anonymity (Kistantas & Chow, 2007; Roschelle, et al, 2000); or avoidant help seekers never even considered using online help options because they were unaware of its features, benefits, or risks (Aleven, et al., 2003). Interestingly, the online help seeking options did not produce any significant correlations, which may again hint at the fact that the students were unaware or the features, benefits, or risks of seeking help using those help seeking options (Aleven et al., 2003).

Research Question 3: How do the students' help seeking profiles relate to each of the students' preferred help seeking sources?

Data for the third research question indicate that avoidant and adaptive help seekers differ in their intention to seek help from different sources. Correlational evidence suggests that adaptive help seekers intend to seek help more than avoidant help seekers, regardless of the source that is available. The two profiles are completely opposite in the direction of their correlation coefficients. Adaptive help seekers' intention to seek help from the professor is the strongest and their intention to seek help from their classmates is the weakest; while avoidant help seekers indicate that they intend to avoid seeking help from the professor the most and the classmates the least.

The adaptive help seeking intentions are more consistent with previous research studies conducted in elementary and secondary classrooms. These previous findings indicate that students prefer to seek help from the teacher rather than peers (Newman & Goldin 1990; van der Meij, 1988). While the avoidant help seeking intentions are more consistent with the findings of previous research studies conducted in college classrooms, which indicate that students prefer to seek help from peers (Karabenick & Knapp 1991; Keefer & Karabenick, 1998; Knapp & Karabenick, 1988). This could indicate that the behavior of avoidant help seekers may be influenced more by contextual factors such as being in a large sized class, not having a close relationship with the instructor, while simultaneously having easier access to other students (Alexitch, 2002; Nelson-Le Gall & Glor-Scheib, 1983).

Research Question 4: How does perceived help seeking threat relate to each of the students' preferred help seeking options?

The data collected indicated that help seeking threat may not be related to the intention to seek help using different options. The correlational evidence was nonsignificant but also showed that in person help seeking options were associated with more threat than online help seeking options. This is consistent with previous studies that indicate that the greater anonymity of online help seeking options is less threatening to students (Kistantas & Chow, 2007; Roschelle, et al, 2000). However, this could again be an indication that students are simply unaware or unwilling to use the online help seeking options.

It may also be true that none of the different help seeking options is really associated with different levels of threat, which would be an interesting finding if replicated. Many other factors including class size, course content, and availability and friendliness of the professor and teaching assistants may have contributed to the nonsignificant findings and would have to be examined in a follow up study.

Research Question 5: How does perceived help seeking threat relate to each of the students' preferred help seeking sources?

Correlational evidence suggests that seeking help from all of the sources is associated with help seeking threat. Seeking help from the teaching assistant is associated with the most help seeking threat, followed by seeking help from the professor, and then from classmates.

While previous studies have indicated that seeking help from the professor is associated with more help seeking threat in college classrooms, none of the studies that were reviewed contain information regarding the help seeking threat associated with seeking help from teaching assistants (Karabenick & Knapp 1991; Keefer & Karabenick, 1998; Knapp & Karabenick, 1988). Interestingly, seeking help from the teaching assistant related to the most threat, despite the fact that the teaching assistants did not evaluate or grade students in this class.

However, the result is consistent with the rankings and help seeking frequencies that the students also reported in this study. One possible explanation for this result is that participants do not think teaching assistants are as knowledgeable as the professor and yet seeking help with them is not as convenient as seeking help from peers.

Conclusions

The results of the study indicate that adaptive and avoidant help seekers differ in their use of available help seeking sources and options. Compared to avoidant help seekers, the adaptive help seekers displayed higher intentions to seek help using all of the sources and options that were available, which is consistent with the definition of the two constructs (Butler, 1998; Newman, 2002; Newman & Schwager, 1995; Ryan, Gheen, & Midgley, 1998; Ryan & Pintrich, 1997; Ryan & Shin, 2011). Since help seeking is related to achievement, it was important to discover a help seeking option that enables avoidant help seekers to seek help (Ryan, Patrick, & Shim, 2005; Ryan et al., 2009).

Findings from this study indicate that the online help seeking options appear to be less adverse help seeking options compared to in person options for avoidant help seekers, which

may be a reason for instructors to integrate online help seeking options into their courses.

Unfortunately, help seeking threat was not found to be significantly associated with intention to use help seeking options. This is surprising as previous studies that indicated that the anonymity of online help seeking may help reduce help seeking threat (Kistantas & Chow, 2007; Roschelle, et al, 2000; Ryan, Pintrich, & Midgley, 2001). However, the students may not have been aware of the benefits, risks, and function of online help seeking options. Additionally, the students may not have had enough practice using the help seeking options to truly witness their utility. In the future it would be important to provide explicit instruction and practice opportunities to students, so they fully understand how to seek help and understand the benefits of asking for help using these options, which may increase the intention to seek help using online help options and reduce the threat associated with the online options, for both help seeking profiles (Aleven et al., 2003).

Future research studies should attempt to replicate these findings with other help seeking sources and options to learn more about how the identification of a source of help and the implementation of a strategy for getting help affects the decision to seek help. Additionally, future studies should seek to improve upon the design and correct several of this study's limitations.

One first limitation of this study is that the data were collected from two sections of the same class, which was taught by the same professor. The results may be specifically related to the characteristics of the professor and how this particular class was organized. As a result, the findings presented here may not be generalizable to other classes, especially to smaller classes that rely less on lecture based instruction, but given that many introductory courses at large universities have similar formats and are composed of first year students, the results should provide some insight to instructors on the help seeking preferences and intentions of similar

students. However, similar studies would need to be conducted in classrooms with different professors, instructional methods, and content areas in order to further generalize the results.

A second limitation of the study is that it relies entirely on self-reported information. While unlike much of the existing research, this study contributes to the research base in new ways as attempts were made to ensure that the data represented actual behavior, through the use of the intention rankings; observational data would provide more concrete evidence.

A third limitation of the study is that help seeking threat may be a general trait or may be specific to the situation. In this study, a measure of general help seeking threat was used and correlated with the measures of reported intentional help seeking behavior. Future studies should focus directly on grain size issues of threat specifically generated by using a help seeking source or help seeking option.

Despite the limitations, this study has provided new interesting results in regard to how the identification of an appropriate source of help and the implementation of a strategy for getting help affects the help seeking behavior. This contribution was a previously neglected aspect of the help seeking process (Nelson-Le Gall, 1981). Additionally, the instrumentation used in this study can be adapted and used to examine how individuals with different help seeking tendencies utilize different help seeking sources and options, or to explore the relationship between different help seeking options and threat. The instrumentation also provided evidence that self-reported help seeking measures may be a reliable account of intended help seeking behavior.

More research needs to be conducted in the area of help seeking using online help seeking options. If instructors are able to devote time and resources to effectively provide help

using new help seeking options, student achievement and resilience may increase (Ryan, Patrick, & Shim, 2005; Ryan et al., 2009).

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Appendix A: Demographic Questionnaire

Please fill in the following information.

PSU ID# _____

Section _____

Major: _____

Appendix B: Frequency and Ranking Items

Indicate the frequency of each of the following events using this scale:

0 times 1 time 2 times 3 times 4 times 5 or more times

1. I have come to see any of the teaching assistants during office hours:
2. I have come to see the professor during office hours.
3. I have consulted any of the teaching assistants after class.
4. I have consulted the professor after class.
5. I have accessed the discussion board in EDPSY 014.
6. I have asked a peer a question about this course.

Rank the following sources in the order in which you would go seek help (1 is the first person I would go to for help, 4 is the last person I would go to for help).

- ___ Peer
- ___ Tutor
- ___ Teaching assistant
- ___ Professor\

Rank the following mediums in the order in which you would use to seek help (1 is the first medium I would use to seek help, 6 is the last medium I would use to seek help).

- ___ In person in class
- ___ In person after class
- ___ In person during office hours
- ___ On the discussion board
- ___ During online office hours
- ___ Through email

Appendix C – Help Seeking Threat Items

These items were adapted from a scale first used by Karabenick & Knapp (1991).

Answer the following questions on help seeking using the following scale:

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

1. Getting help in EDPSY 014 is an admission of my own lack of ability or ignorance.
2. I prefer to fail on my own rather than to succeed EDPSY 014 because I got help.
3. I think less of myself when I cannot do my EDPSY 014 work without help.
4. People think less of me if I succeed in EDPSY 014 only because I got help
5. I feel uneasy about what people think if they found out I need help in order to succeed in EDPSY 014.
6. I prefer that the professor of EDPSY 014 not find out that I am in a study group.
7. I prefer that my classmates in EDPSY 014 not find out that I am in a study group.
8. I prefer that the professor of EDPSY 014 not find out that I ask questions on the discussion board.
9. I prefer that my classmates in EDPSY 014 not find out that I ask questions on the discussion board.
10. I prefer that the professor of EDPSY 014 not find out that I go to the teaching assistants for help.
11. I prefer that my classmates in EDPSY 014 not find out that I go to the teaching assistants for help.
12. I prefer that my classmates in EDPSY 014 not find out that I go to the professor for help.
13. I prefer that the professor of EDPSY 014 not find out that I seek help from other outside sources.
14. I prefer that my classmates in EDPSY 014 not find out that I seek help from other outside sources.

Appendix D – Adaptive Help Seeking Items

These items were adapted from a scale first used by Ryan & Pintrich (1997).

Answer the following questions on help seeking using the following scale:

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

1. If I do not understand something EDPSY 014, I usually want someone to explain it to me and not just give me the answer.
2. If there is something I do not understand in EDPSY 014, I prefer someone give me hints or clues rather than the answer.
3. When I do not understand my work in EDPSY 014, I usually want someone to show me the steps involved in answering the questions.
4. If I need help with my work in EDPSY 014, I usually ask questions so the person will provide just enough information so I can figure it out myself.
5. If I get stuck on a difficult problem in EDPSY 014, I usually ask someone for just enough help so that I can keep working through it.

Appendix E – Avoidant Help Seeking Items
These items were adapted from a scale first used by Karabenick (2001).

Answer the following questions on help seeking using the following scale:

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

1. If I do not understand something in EDPSY 014, I prefer to guess rather than ask the teacher for assistance.
2. If I do not understand something in EDPSY 014, I prefer to guess rather than ask a teaching assistant for assistance.
3. Even if the work is too hard to do on my own, I do not ask for help with EDPSY 014.
4. I prefer to do worse on an assignment in EDPSY 014 that I could not finish, rather than ask for help.

Appendix I – Items Measuring the Intention to Seek Help on the Online Discussion Board
These items were adapted from a scale first used by Newman (1990).

Answer the following items that measure intention to seek help from **on the online discussion board** using the following scale:

Very unlikely	Somewhat unlikely	Neither likely or unlikely	Somewhat likely	Very likely
1	2	3	4	5

1. How likely am I to post a question on the **online discussion board** in EDPSY 014 for help when I do not understand how to do a problem or activity?
2. How likely am I to post a question on the **online discussion board** in EDPSY 014 for help when I do not understand directions?
3. How likely am I to post a question on the **online discussion board** in EDPSY 014 for help when I need help with something that the teacher already explained how to do?
4. How likely am I to post a question on the **online discussion board** in EDPSY 014 for help when I have done the problem but not sure of the answer?
5. How likely am I to post a question on the **online discussion board** in EDPSY 014 for help when I think I might get a bad grade if I do not get help?
6. How likely am I to post a question on the **online discussion board** in EDPSY 014 for help when I cannot remember something that I need to know in order to do answer a question?
7. How likely am I to post a question on the **online discussion board** in EDPSY 014 for help when there is something I do not understand and I cannot figure it out myself?

Appendix J – Items Measuring the Intention to Seek Help During Office Hours
These items were adapted from a scale first used by Newman (1990).

Answer the following items that measure intention to seek help **during office hours** using the following scale:

Very unlikely	Somewhat unlikely	Neither likely or unlikely	Somewhat likely	Very likely
1	2	3	4	5

1. How likely am I to come ask questions during **office hours** in EDPSY 014 for help when I do not understand how to do a problem or activity?
2. How likely am I to come ask questions during **office hours** in EDPSY 014 for help when I do not understand directions?
3. How likely am I to come ask questions during **office hours** in EDPSY 014 for help when I have done the problem but not sure of the answer?
4. How likely am I to come ask questions during **office hours** in EDPSY 014 for help when I think I might get a bad grade if I do not get help?
5. How likely am I to come ask questions during **office hours** in EDPSY 014 for help when I cannot remember something that I need to know in order to do answer a question?
6. How likely am I to come ask questions during **office hours** in EDPSY 014 for help when there is something I do not understand and I cannot figure it out myself?
- 7.

Appendix K – Items Measuring the Intention to Seek Help During Online Office Hours
These items were adapted from a scale first used by Newman (1990).

Answer the following items that measure intention to seek help **during online office hours** using the following scale:

Very unlikely	Somewhat unlikely	Neither likely or unlikely	Somewhat likely	Very likely
1	2	3	4	5

1. How likely am I to ask a question during **online office hours** in EDPSY 014 for help when I do not understand how to do a problem or activity?
2. How likely am I to ask a question during **online office hours** in EDPSY 014 for help when I do not understand directions?
3. How likely am I to ask a question during **online office hours** in EDPSY 014 for help when I need help with something that the teacher already explained how to do?
4. How likely am I to ask a question during **online office hours** in EDPSY 014 for help when I have done the problem but not sure of the answer?
5. How likely am I to ask a question during **online office hours** in EDPSY 014 for help when I think I might get a bad grade if I do not get help?
6. How likely am I to ask a question during **online office hours** in EDPSY 014 for help when I cannot remember something that I need to know in order to do answer a question?
7. How likely am I to ask a question during **online office hours** in EDPSY 014 for help when there is something I do not understand and I cannot figure it out myself?

Appendix L – Items Measuring the Intention to Seek Help Before or After Class
These items were adapted from a scale first used by Newman (1990).

Answer the following items that measure intention to seek help **before or after class** using the following scale:

Very unlikely	Somewhat unlikely	Neither likely or unlikely	Somewhat likely	Very likely
1	2	3	4	5

1. How likely am I to ask a question **before or after class** in EDPSY 014 for help when I do not understand how to do a problem or activity?
2. How likely am I to ask a question **before or after class** in EDPSY 014 for help when I do not understand directions?
3. How likely am I to ask a question **before or after class** in EDPSY 014 for help when I need help with something that the teacher already explained how to do?
4. How likely am I to ask a question **before or after class** in EDPSY 014 for help when I have done the problem but not sure of the answer?
5. How likely am I to ask a question **before or after class** in EDPSY 014 for help when I think I might get a bad grade if I do not get help?
6. How likely am I to ask a question **before or after class** in EDPSY 014 for help when I cannot remember something that I need to know in order to do answer a question?
7. How likely am I to ask a question **before or after class** in EDPSY 014 for help when there is something I do not understand and I cannot figure it out myself?

Appendix N – Items Measuring the Intention to Seek Help via Email
These items were adapted from a scale first used by Newman (1990).

Answer the following items that measure intention to seek help **via email** using the following scale:

Very unlikely	Somewhat unlikely	Neither likely or unlikely	Somewhat likely	Very likely
1	2	3	4	5

1. How likely am I to ask a question **via email** in EDPSY 014 for help when I do not understand how to do a problem or activity?
2. How likely am I to ask a question **via email** in EDPSY 014 for help when I do not understand directions?
3. How likely am I to ask a question **via email** in EDPSY 014 for help when I need help with something that the teacher already explained how to do?
4. How likely am I to ask a question **via email** in EDPSY 014 for help when I have done the problem but not sure of the answer?
5. How likely am I to ask a question **via email** in EDPSY 014 for help when I think I might get a bad grade if I do not get help?
6. How likely am I to ask a question **via email** in EDPSY 014 for help when I cannot remember something that I need to know in order to do answer a question?
7. How likely am I to ask a question **via email** in EDPSY 014 for help when there is something I do not understand and I cannot figure it out myself?

Appendix O – IRB Approval Letter

PENNSSTATE



Vice President for Research
Office for Research Protections

The Pennsylvania State University
The 330 Building, Suite 205

Phone: (814) 865-1775
Fax: (814) 863-8699
Email: orp@psu.edu
Web: www.research.psu.edu/orp

Date: November 07, 2011
From: The Office for Research Protections - FWA#: FWA00001534
Stephanie L. Krout, Compliance Coordinator
To: Philip M. Reeves
Re: Determination of Exemption

IRB Protocol ID: 38332
Follow-up Date: November 1, 2016
Title of Protocol: Comparing Help Seeking Mediums

The Office for Research Protections (ORP) has received and reviewed the above referenced eSubmission application. It has been determined that your research is exempt from IRB initial and ongoing review, as currently described in the application. You may begin your research. The category within the federal regulations under which your research is exempt is:

45 CFR 46.101(b)(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Given that the IRB is not involved in the initial and ongoing review of this research, it is the investigator's responsibility to review [IRB Policy III "Exempt Review Process and Determination"](#) which outlines:

- What it means to be exempt and how determinations are made
- What changes to the research protocol are and are not required to be reported to the ORP
- Ongoing actions post-exemption determination including addressing problems and complaints, reporting closed research to the ORP and research audits
- What occurs at the time of follow-up

Please do not hesitate to contact the Office for Research Protections (ORP) if you have any questions or concerns. Thank you for your continued efforts in protecting human participants in research.

This correspondence should be maintained with your research records. |

Appendix P – Recruitment Letter

EDPSY 14: The researchers will describe the study and recruit volunteers in person in EDPSY 14 using the following recruitment statement:

I am here to recruit participants for a research study that examines how people choose to seek help. This research is being conducted as part of my thesis requirement. You must be 18 years or older to participate in this study. If you agree to participate, you will be asked to complete a demographic inventory and answer some questions about what your help seeking preferences are.

You can participate using any computer with internet access. The survey will be administered through Qualtrics, an online survey tool. You will be required to enter your PSU user ID (ex: acb1234). The ID will be used to prove that you participated in the study but will not be linked with your answers, so that your responses remain completely anonymous.

The survey will be open for three weeks. The session should take no more than one hour. For your participation, you may receive extra credit that equals approximately 1% of the total points available in your course. You may also request to do an article review instead of participating in the study to earn equivalent extra credit points. The reviews should be turned in to me at 225 CEDAR. The reviews will also be for three weeks. A list of participants will be provided to your instructor during the last week of class.

By logging into Qualtrics you are consenting to participate in the study. Please know that if the questions make you uncomfortable, you can stop at any time. If you have questions about the study you may contact Phil Reeves at pmr5013@psu.edu

Thank you for your time,

Philip Reeves

*Graduate Student
Department of Educational Psychology
Office: 225 CEDAR Building*