IJET

Linney, J. (2017). Exploring the feasibility of information communication technologies in the context of academic help seeking. *International Journal of Educational Technology*, *4*(1), 34-42.

Original Paper

Journal homepage: http://educationaltechnology.net/ijet/

OPEN ACCESS

Exploring the feasibility of information communication technologies in the context of academic help seeking

Jeffrey S. Linney*

Louisburg College, Division of Student Life, Louisburg, North Carolina, USA

KEYWORDS

Text-Messaging
Information Communication Technologies (ICTs)
Short Message Service (SMS)
Information Sytems (IS)
Information Technology (IT)
Academic Help-Seeking (AHS)

ABSTRACT

This study sought to investigate whether the popularity of Information Communication Technologies (ICTs) would impact the behavioral intention (BI) to use of these technologies to aid in the task of academic help-seeking (AHS). Out of the ICTs available today, the most popular is text-messaging, especially among a sizable percentage of the college population. Approximately 600 students at a small, private junior college in eastern North Carolina were invited to participate in this study with a target of 248 responses needed to comprise an adequate sample. A total of 259 usable surveys (n = 259) were received and analyzed. Qualitative data collection instruments consisted of an open-ended questionnaire and other open-ended responses that were solicited throughout the data collection phase. Quantitative data collection instruments consisted of a 22-item Likert-scale survey and a forced-choice ordinal scale instrument that measured computer user self-efficacy (CUSE) and experience using technology (EUT). Situated in the context of academic help-seeking (AHS), vignettes were developed, validated and administered to offer AHS scenarios where a problem was presented and the participants were then asked to reveal which type of ICT and which source of academic help (formal or informal help) he or she would utilize in each particular situation.

Introduction

According to Westerman, Van Der Heide, Klein, and Walther (2008), although information communication technologies (ICTs) may be useful in completing organizational tasks, their usefulness in accomplishing interpersonal tasks requires further study. Within the realm of ICTs, one particular technology that warrants further research is short message service (SMS) text-messaging. SMS text-messaging is an extremely popular low social presence ICT among American college students (Quan-Haase, 2008). Quan-Haase proposed that text-messaging as a mobile ICT is poised to potentially replace IM based on its exponential growth over time. Text-messaging allows users to communicate in an on-screen, text-based format utilizing combinations of alphanumerical characters (Soriano, Raikundalia, & Szajman, 2005). Soriano et al. (2005) iterated that text-messaging offers a means for

* *Corresponding author.* E-mail address: jslinney906@gmail.com

increased social interaction in addition to an accurate, efficient, and distinct means of communication. Perry, O'Hara, Sellen, Brown, and Harper (2001) acknowledged that research on mobile ICTs has emerged as an important field of study within itself.

Research goal

The primary goal of this study was to investigate college students' behavioral intention (BI) to use ICTs in the context of academic help-seeking (AHS). The need for this study was supported by Westerman et al. (2008). The BI to use component of this study was aimed specifically at college students and is supported by the work of Chang and Tung (2008), Park (2009), and Alshare, Freeze, and Kwun (2009). This study examined BI to use ICTs among college students with a specific interest in text-messaging for the completion of AHS. Three research questions were investigated to achieve the primary research goal.

RQ1. How does the availability of ICTs impact intention toward completing AHS among college students?

The first research question sought to measure behavioral intention (BI) to use ICTs among college students to complete tasks in an AHS context.

RQ2. Out of the available selection of ICTs, how was text-messaging viewed as a medium for task completion, specifically with regard to AHS?

The second research question sought to reveal how the college student participants specifically viewed text-messaging and its usefulness towards completing AHS tasks. Text-messaging was compared to FtF communication, email, and instant messaging (IM). As justification for the second research question it is argued that despite its immense popularity, no studies have been found in the scholarly literature to date that explored text-messaging as an ICT exclusively for college students to use for completing interpersonal tasks such as AHS. Additionally, previous BI to use IS studies have focused on media selection and choice regarding a variety of ICTs, but no studies were found to date that included text-messaging as an option.

RQ3. What are the characteristics of college students who prefer ICTs to complete the task of AHS?

The third research question sought to identify the characteristics of users who may actually utilize ICTs for engaging in AHS tasks. The third research question is important as user attitudes, gender, experience with the technology, and competency, expressed as user characteristics, are useful in the human-technology matching component of media selection.

Relevance and significance

ICTs are noticeably reshaping many aspects of business and social life to especially include the way people communicate with each other (Arendt, 2008). Ciborra (2002) agreed that ICTs shape the way individuals work and redefine their identities. Saccol and Reinhard (2006) discussed the concepts of appropriation and circumspection with appropriation stipulating the way a new technology or ICT is integrated into the everyday life of organizations and individuals. Similarly, circumspection relates to the use and implementation of a new technology. More specifically, circumspection demonstrates how a new technology or ICT becomes involved and utilized in practical applications of everyday activities such as task completion. In support of the current problem under investigation, it was suggested that the use of text-messaging as an asynchronous, low social presence ICT, and as a new and novel technology, deserves further study with regard to appropriation and circumspection as defined by Saccol and Reinhard.

Review of literature

The problem that was addressed is in fact multidisciplinary, spanning across the fields of psychology, education, allied health, and information technology. However, this brief literature review examines ICTs exclusively in an AHS context within higher education settings.

Sms text-messaging in academic environments

Ismail and Idrus (2009) conducted a pilot study utilizing text-messaging for a Physics course for distance learners. An attempt was made to promote mobile learning (m-Learning) as "convenience Education" (CE). Thirteen students in a second year Physics course responded to a questionnaire and also received text-messages during the course. The responses from the questionnaire strongly favoured the distance education based aspect of the course that was enhanced with mobile phone text-messaging. Furthermore, the course manager was overwhelmed with e-mail messages from students in the pilot course requesting the continuation of the text-messages through the end of the course.

Ismail and Idrus concluded that mobile phones, capable of text-messaging, have the potential to greatly and positively affect a distance-based Physics course. Scornavacca (2009) also utilized text-messaging in the classroom stating that the immense popularity of cell phones among university students offers a unique opportunity to explore text-messaging as a classroom interaction system. Scornavacca presented a longitudinal study of the impact of a text-based classroom interaction system referred to as TXT-2-LRN.

In Scornavacca (2009) a survey was administered to 1,179 college student participants over a two-year period. The results suggested that instructors and students perceive a number of benefits from the addition of text-messaging in the classroom. The results of the data from the second year of the study validated the results from the first year of the study. It was concluded that although there were definite positive factors toward the use of mobile phones in the classroom, negative factors were reinforced as well such as their propensity to be distracting, thus pulling students off task in the classroom. Day and Kumar (2010) agreed as they asserted that getting 150 to 300 students in an auditorium style classroom to participate in discussions and in-class exercises is challenging and also difficult to oversee.

Day and Kumar (2010) utilized a new version of the beer game to promote large classroom discussion by allowing students to submit orders by way of text-message. To accomplish this, a pilot information system integrating several software, hardware, and service components was assembled. The findings from this two-year longitudinal study indicated that in the first year a pilot class of 24 students provided 100% positive feedback on the use of the text-messaging system. During the second year, 32 students were split evenly into experimental and control groups with one group receiving feedback text-messages.

The findings from the second year class revealed that the group receiving the feedback text-messages made only one error during a calculations task while participants in the remaining groups who did not receive text-messages made a total of 33 errors. Day and Kumar concluded that cell phones are useful in the classroom. They further stipulated that cell phones can eliminate the need for computer labs and also provide real-time information allowing for automated performance analysis, thus aiding in simulation learning objectives. Awodele, Akinwale, Adagunodo, Idowu, and Agbaje (2009) conducted a literature review examining the use of text-messaging to deliver examination results in educational settings that was referred to as a result checking system.

Awodele et al. (2009) evaluated several existing SMS systems that were Web-based, voice activated and asynchronous used by university students to view exam results. These evaluations led Awodele et al. to propose their own SMS-based system to review exam results. The system proposed by Awodele et al. automatically generated a password for the user and placed high emphasis on trust in order to encourage the user to utilize a phone number for access. Text-messaging has also shown promise as a tool for completing practical tasks (Shi & Wang, 2009; Riquelme & Rios, 2009; Bose, Nahid, Islam, & Saha, 2010).

Academic help-seeking

There are definitions of help-seeking that place it more firmly in the academic or learning arena. According to Karabenick (1998), help seeking is viewed as a self-regulating and proactive strategy that prepares learners for independent success. Nelson-Le Gall and Resnick (1998), identified help-seeking as a critical school readiness skill that is facilitated by mastery-oriented classroom achievement and social goals, by inspiring teachers and inquisitive students. Additionally, Ryan and Pintrich (1998) defined help-seeking as the ability to utilize others as a resource to cope with ambiguity and difficulty in the learning process.

Help-seeking research was conducted fairly extensively by psychology and educational researchers at the start of the 1980's. DePaulo contributed greatly to the body of knowledge in the area of help-seeking during this period (DePaulo & Fisher, 1980; DePaulo & Fisher, 1981; DePaulo, Dull, Greenberg, & Swain, 1989). According to DePaulo and Fisher (1980) the consideration of two different types of psychological cost creates a state of constant conflict among potential help-seekers. To explain, a help-seeker will weigh the risk of perceived incompetence against the need to seek help for matters that he or she should already be able to competently handle or address. In addition, the help-seeker will also weigh the perceived inconvenience experienced by the person providing this help against his or her individual need for assistance.

The findings of this study suggested that potential help-seekers take into consideration the psychological costs of seeking assistance. In essence, DePaulo and Fisher (1980) suggested that if a potential help-seeker would risk embarrassment due to a perceived incompetence by asking for help, he or she would feel less comfortable about seeking help. DePaulo and Fisher looked specifically at female college students in their study and found that the female participants were reluctant to seek help. Taking into consideration that DePaulo and Fisher conducted their study over 30 years ago, current literature shifts this reluctance to seek help to collegiate males with females now reportedly being more receptive to formal help seeking (Tsan & Day, 2007; Vogel, Wester, & Larson, 2007; McKenna, Green, & Gleason, 2002).

Methodology

This study employed a descriptive approach to assess behavioral intention to use information communication technologies (ICTs) for the task of AHS. This study was conceived based upon previous research reviewed in the scholarly information systems (IS) literature (Hoar and Flint, 2008, Kitsantas and Chow, 2007, Markett, Sánchez, Weber, & Tangney, 2006). Institutional Review Board (IRB) approval was needed and acquired from the participating institution where the human subjects that were used in the study were enrolled.

The participants viewed a series of vignettes depicting hypothetical scenarios that ultimately suggested the need for some type of AHS assistance. Based on the information contained in the vignettes, the participants were then asked to answer two rank-order questions and to provide a brief rationale for their top and bottom selections on both questions. The ordinal questions allowed the respondents to reveal their intentions to use any of the five selected ICTs to complete the interpersonal task of AHS. The participants concluded by completing a survey instrument recording demographic data. A direct Web link to the online survey instrument was emailed to the entire student body at the target institution. The online survey instrument was designed to allow all participants to remain anonymous. No descriptive data other than race and gender were solicited from the participants. Utilizing descriptive statistics, the responses were tallied and displayed as total percentages of those who chose informal help in each AHS scenario versus those who chose formal help. The data that were collected relating to the participants' selection of preferred help-giver and preferred ICT were tallied, rank-ordered, and displayed in frequency distribution tables.

A demographics survey instrument required the study participants to submit information using forced choice responses. For example, Gender (1 = male, 2 = female), Race (1 = White, 2 = African American, 3 = Hispanic/Latino, 4 = Asian, 5 = Native American, 6 = Other/Mixed Race), and Class (1 = freshman, 2 = sophomore). A content analysis was conducted where the data was cross-tabulated by gender, class rank, race and ethnicity for each of the ICTs. The responses from the demographics instrument were tallied and displayed as frequency counts in the form of percentages. Males were compared with females to measure the AHS equivalencies between both genders.

Population and sample

The sample was derived from the college student population at a small residential junior college in Northeastern North Carolina with a total enrollment of approximately 600 students. Approximately 43% of the study population is comprised of athletes (C.B. Sloan, personal communication, January 03, 2012). The entire population was sampled in an attempt to reach the highest validity possible. However, the minimum sample size required from a population of 600 was 248 participants based on a 95% confidence level with a margin of error of 5%. At the conclusion of the data collection period over the course of approximately six months, a total of 313 students had completed the survey with 259 completing the survey in its entirety without skipping any questions. A total of 54 incomplete surveys were omitted from the study altogether.

Validity and reliability

Previously validated survey instruments from Wynn (2009) and Foreman (2009) served to aid this study in examining the characteristics of individuals who may utilize technology and BI to use technology in order to complete interpersonal tasks. Vignettes were developed in this study to answer RQ2 that were subjected to an expert nominal group technique (NGT) panel to undergo the process of establishing validity and reliability. Additionally, Sekaran (2003) offered that external validity indicates the generalizability of the results of a study to other people, settings, or events. This generalizability within a study increases upon using relevant variables examined in previous research and then upon excluding any non-relevant variables (Hair, Anderson, Tatham, & Black, 1998).

Results

Scenario 1

> *Your Biology Professor has announced a final exam worth 75% of your grade that will be given at your next class meeting. You are struggling with the course and desperately need to pass this upcoming exam. Your professor has given you several options if you need help preparing for the exam. First, the professor recommends reporting to the Biology lab for face-to-face (FtF) peer learning and tutoring with other Biology students outside of class. The professor also will be available for a one-hour virtual review session of the material covered in class where you can contact him/her by instant messaging (IM). You also are given the option to send the professor an e-mail where you can ask questions and seek additional study tips. Your professor also provided a cell phone number where you can call or send a text-message with any questions prior to the exam. You also have friends who are serious Biology students that you could solicit for help.*

In scenario one, the majority of respondents (n = 151) (55.1%) revealed that they would seek formal help from their professor or instructor revealing that formal help was preferred over informal help for this scenario. A negligible number (n = 4) (1.5%) indicated they would seek formal help from a coach,

trainer, counselor, or medical staff. The overall total of informal help responses was (n = 108) (39.5%). The full distribution of preferred source for seeking academic help (formal versus informal) for scenario one is illustrated in Table 1.

In scenario one, the majority of the respondents (n = 200) (73.0%) indicated that they would utilize FtF help as their preferred ICT to seek AH. Email was found to be a very popular ICT based on the respondents' data that was received previously from the open-ended questionnaire. Thus, email was selected second highest for AHS among the respondents (n = 34) (12.4%). Only a small number of the respondents (n = 3) (1.2%) indicated that they would not use any of these ICTs for AHS and only one respondent (0.8%) stated he or she would not seek AH at all in scenario one. Table 2 summarizes the full distribution of preferred ICTs for scenario one.

Table 1. Preferred Source for Seeking Academic Help (Scenario 1)

In this scenario I would seek as my first choice for academic help:		
Answer Options	**Response Percent**	**Response Count**
Close Friend	10.6%	29
Family Member	6.6%	18
Peer (Fellow student/Teammate)	22.3%	61
Administrator	2.2%	6
Professor/Instructor	55.1%	151
Counselor/Medical Staff	0.4%	1
Coach/Trainer	1.5%	4
None of these	1.8%	5
answered question		**274**
skipped question		**39**

Table 2. Preferred ICT for Seeking Academic Help (Scenario 1)

In this scenario I would utilize as my first choice to seek academic help:		
Answer Options	**Response Percent**	**Response Count**
Email	12.4%	34
IM	1.1%	3
FtF (Live Person)	73.0%	200
Text-messaging	5.5%	15
Telephone	6.2%	17
I would not use any of these particular help-seeking methods	1.2%	3
I would not seek any help at all	0.8%	1
answered question		**274**
skipped question		**39**

Scenario 2

Due to personal issues involving your family, your grades have suffered since you have not been spending enough time on your studies. You could e-mail the school counselor and speak with her about these issues that are affecting your grades, or you could visit her in person to seek help. You could text or instant message (IM) your friends to seek help or advice. You have friends in your classes that you could study with in person so you can

get caught up and improve your grades. There are others you may be able to call on the phone who would be willing to help you during this difficult period as well.

In scenario two, the majority of respondents (n = 74) (27.8%) again revealed that they would seek formal help from their professor or instructor. Because this scenario also suggested the option to get help for personal family issues, the respondents chose a counselor or medical staff as the second highest source of help (n = 53) (19.9%). Table 3 summarizes the respondents' responses of preferred source for seeking academic help.

In scenario two, out of 266 respondents surveyed, the majority of the respondents (n = 160) (60.2%) again indicated that they would utilize FtF help as their preferred ICT to seek AH. While the open-ended questionnaire revealed that email was a very popular ICT, it also revealed that the respondents felt that IM was an antiquated ICT that was no longer used by their peers. As with scenario one, IM was the lowest ranking ICT for scenario two (n = 6) (2.3%). Table 4 illustrates the full distribution of the preferred ICTs for scenario two.

Table 3. Preferred Source for Seeking Academic Help (Scenario 2)

In this scenario I would seek as my first choice for academic help:		
Answer Options	**Response Percent**	**Response Count**
Close Friend	18.0%	48
Family Member	11.3%	30
Peer (Fellow student/Teammate)	9.8%	26
Administrator	7.5%	20
Professor/Instructor	27.8%	74
Counselor/Medical Staff	19.9%	53
Coach/Trainer	1.9%	5
None of these	3.8%	10
answered question		**266**
skipped question		**47**

Table 4. Preferred ICT for Seeking Academic Help (Scenario 2)

In this scenario I would utilize as my first choice to seek academic help:		
Answer Options	**Response Percent**	**Response Count**
Email	13.5%	36
IM	2.3%	6
FtF (Live Person)	60.2%	160
Text-messaging	9.0%	24
Telephone	7.7%	20
I would not use any of these particular help-seeking methods	4.1%	11
I would not seek any help at all	3.0%	8
answered question		**266**
skipped question		**47**

Scenario 3:

Your roommate seems to repeatedly make irresponsible decisions and then calls on you to bail him/her out of these situations. You frequently lose sleep and are fatigued as a result of being a nursemaid to your roommate, thus causing your grades to slip. You are on a full academic scholarship and you must maintain a certain grade point average to maintain your eligibility. You need to speak with someone to get advice on how to deal with your roommate and preserve your academic scholarship. You could seek online help from a college official by e-mail, contact your residence community coordinator (RCC) by IM, visit the school counselor in person, call a parent by phone, or text a friend for advice.

The results of the data from scenario three revealed that out of the 262 respondents surveyed, the majority of the respondents again preferred formal help, in this instance from an administrator (n = 51) (19.5%). With regard to preferred ICT, FtF (n = 148) (56.5%) was for the third time, the top choice for the majority of the respondents while IM (n = 9) (3.4%) ranked as the least preferred ICT in all three scenarios. Text-messaging ranked no higher than third in two out of three scenarios presented to the respondents, in this scenario (n = 24) (9.2%). Tables 5 and 6 illustrate the data for scenario three.

Table 5. Preferred Source for Seeking Academic Help (Scenario 3)

In this scenario I would seek as my first choice for academic help a:		
Answer Options	**Response Percent**	**Response Count**
Close Friend	16.8%	44
Family Member	14.1%	37
Peer (Fellow student/Teammate)	12.2%	32
Administrator	19.5%	51
Professor/Instructor	6.1%	16
Counselor/Medical Staff	18.7%	49
Coach/Trainer	3.4%	9
None of these	9.2%	24
answered question		**262**
skipped question		**51**

Table 6. Preferred ICT for Seeking Academic Help (Scenario 3)

In this scenario I would utilize as my first choice to seek academic help:		
Answer Options	**Response Percent**	**Response Count**
Email	8.4%	22
IM	3.4%	9
FtF (Live Person)	56.5%	148
Text-Messaging	9.2%	24
Telephone	13.0%	34
I would not use any of these particular help-seeking methods	3.4%	9
I would not seek any help at all	6.1%	16

Conclusions

Conclusions drawn from cross-tabulated demographic data and EUT indicate that the majority of the respondents had a great deal of experience with most of the ICTs making them proficient and comfortable with the use of each of the technologies. IM is the exception as it is seldom used by the target demographic and thus, the respondents reported the highest level of lack of experience with this particular ICT. However, this is not to suggest a total unfamiliarity on the respondents' part with the use of IM. Overall, females reporting in this study appear to have more experience with the ICTs and as such, would conceivably use them more than males.

More freshmen responded to the surveys than sophomores in this study. However, freshmen and sophomores expressed similar beliefs in their experiences with all five ICTs. The age difference between traditional college freshmen and sophomores is small, typically with no more than a two-year difference. This could explain their similarly stated experience with each of the ICTs.

FtF was the most popular ICT in all three AHS scenarios and was used extensively across all special population groups, across all racial/ethnic groups, across class ranks of freshmen and sophomores, and across gender in favor of females. Text-messaging was also used extensively among all groups surveyed in this study. However, it was not the most favored ICT for the interpersonal task of seeking AH, at best ranking third among the five ICTs utilized in this study. With that said, high social presence ICTs such as FtF and telephone were favored more for AHS than low social presence ICTs such as text-messaging and email, even though the popularity of text-messaging has superseded email and IM as the preferred means of communication among college students. The age demographic of traditional college students reinforces the conclusion that technology that is perceived to be outdated and not "hip" will typically be shunned in favor of newer, trendier technology. The fact that IM is seldom, if ever used by college students to communicate anymore is a crucial factor in their BI to use it.

Implications

The findings of the current study are significant in the fact that despite its popularity among college students the world over, the college students who participated in this study were reluctant to use text-messaging for the important self-initiating interpersonal task of AHS. The information attained from a comprehensive review of the literature and the findings from the respondent surveys suggest that college students are major stakeholders in technology and their perceptions, views, opinions, and self-efficacy are important factors in their adoption process with regard to their intended use of ICTs.

Although this study contributes to the scholarly body of knowledge (BoK) within information systems, it also has implications in the fields of education and psychology. This study has an overarching help-seeking element within it and help-seeking is a behavioral condition that is firmly rooted in psychology. Furthermore, educators have a stake in the outcome of this study as it allows them, as help-givers, to reach out to potential help-seekers (students), who could then be afforded a new, novel way to seek AH discreetly, if desirable, with the use of ICTs.

Recommendations and future research

This study has provided ample opportunities for future research. Of course, generalizability is an important factor as older age groups should be examined with regard to ICT usage. Future research could also include replicating this work in a business related unit where technology is heavily utilized in a team environment. Situating the study or conducting a similar study in another interpersonal context other than AHS would be highly informative as well. As with older age groups, individuals who fall outside the ages of traditional college students such as adolescents and senior citizens would offer a different perspective on BI to use ICTs.

REFERENCES

Alshare, K., Freeze, R., & Kwun, O. (2009). Student Intention to Use Expert Systems: An Exploratory Study. The Journal of Computer Information Systems, 49(4), 105-113.

Arendt, L. (2008). Barriers to ICT Adoption in SMEs: How to Bridge the Digital Divide? Journal of Systems and Information Technology, 10(2), 93-108.

Awodele, O., Akinwale, A.T., Adagunodo, E.R., Idowu, S., & Agbaje, M. (2009). An Improved SMS User Interface Result Checking System. Interdisciplinary Journal of Information, Knowledge, and Management, 4, 51-62.

Bose, T.K., Nahid, A.A., Islam, MD-T., & Saha, R.K. (2010). SMS Advertising and its Prospects in Bangladesh. Journal of Theoretical and Applied Information Technology, 11(2), 97-107.

Chang, S-C., & Tung, F-C. (2008). An Empirical Investigation of Students' Behavioural Intentions to Use the Online Learning Course Websites. British Journal of Educational Technology, 39(1), 71-83.

Ciborra, C. (2002). The Labyrinths of Information: Challenging the Wisdom of Systems. New York: Oxford Press.

Day, J.M. & Kumar, M. (2010). Using SMS Text Messaging to Create Individualized and Interactive Experiences in Large Classes: A Beer Game Example. Decision Sciences Journal of Innovative Education, 8(1), 129-136.

DePaulo, B., & Fisher, J. (1980). The Costs of Asking for Help. Basic and Applied Social Psychology, 1(1), 23-35.

DePaulo, B., & Fisher, J. (1981). Too Tuned-Out to Take: The Role of Nonverbal Sensitivity in Help-Seeking. Personality and Social Psychology Bulletin, 7(2), 201-205.

DePaulo, B., Dull, W., Greenberg, J., & Swaim, G. (1989). Are Shy People Reluctant to Ask for Help? Journal of Personality and Social Psychology, 56(5), 834-844.

Forman, A. E. (2009). An Exploratory Study on the Factors Associated with Ethical Intention of Digital Piracy. Dissertation, (UMI No. AAT 3380421) Retrieved July 30, 2011 from ProQuest Dissertations and Theses database.

Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). Multivariate Data Analysis. Upper Saddle River, NJ: Pearson Prentice Hall.

Hoar, S., & Flint, F. (2008). Determinants of Help-Seeking Intentions in the Context of Athletic Injury Recovery. International Journal of Sport and Exercise Psychology, 6(2), 157-174.

Ismail, I., & Idrus, R.M. (2009). Development of SMS Mobile Technology for M-Learning for Distance Learners. International Journal of Interactive Mobile Technologies, 3(2), 55-57.

Karabenick, S.A. (Ed.) (1998). Strategic Help Seeking Implications for Learning and Teaching. Mahwah: Erlbaum Press.

Kitsantas, A., & Chow, A. (2007). College Students' Perceived Threat and Preference for Seeking Help in Traditional, Distributed, and Distance Learning Environments. Computers & Education, 48(3), 383-395.

Markett, C., Sánchez, A., Weber, S., & Tangney, B. (2006). Using Short Message Service to Encourage Interactivity in the Classroom. Computers & Education, 46(3), 280-293.

McKenna, K., Green, A., & Gleason, M. (2002). Relationship Formation on the Internet: What's the Big Attraction? Journal of Social Issues, 58(1), 9-31.

Park, S.Y. (2009). An Analysis of the Technology Acceptance Model in Understanding University Students' Behavioral Intention to Use e-Learning. Educational Technology & Society, 12(3), 150-162.

Perry, M., O'Hara, K., Sellen, A., Brown, B., & Harper, R. (2001). Dealing with Mobility: Understanding Access Anytime, Anywhere. ACM Transactions on Computer-Human Interaction, 8(4), 323-347.

Quan-Haase, A. (2008). Instant Messaging on Campus: Use and Integration in University Students' Everyday Communication. The Information Society, 24(2), 105-115.

Riquelme, H.E., & Rios, R.E. (2009). Credibility of and Attitudes toward Political SMS Messages in Kuwait. International Journal of Mobile Marketing, 4(2), 36-42.

Ryan, A., Pintrich, P., & Midgley, C. (2001). Avoiding Seeking Help in the Classroom: Who and Why? Educational Psychology Review, 13(2), 93-114.

Saccol, A.Z., & Reinhard, N. (2006). The Hospitality Metaphor as a Theoretical Lens for Understanding the ICT Adoption Process. Journal of Information Technology, 21(3), 154-164.

Sekaran, U. (2003). Research Methods for Business: A Skill Building Approach. (4th ed.). New York: John Wiley and Sons.

Scornavacca, E. (2009). A Two-Year Analysis of Students' Learning Experience Using Interactive SMS in the Classroom. International Conference on Mobile Business, Dalian, China, pp. 110-114.

Soriano, C., Raikundalia, G.K., & Szajman, J. (2005). A Usability Study of Short Message Service on Middle-Aged Users. Proceedings of the 17th Australia Conference on Computer-Human Interaction, Australia, 1-4.

Tsan, J.Y., & Day, S.X. (2007). Personality and Gender as Predictors of Online Counseling Use. Journal of Technology in Human Services, 25(3), 39-55.

Vogel, D., Wester., S., & Larson, L. (2007). Avoidance of Counseling: Psychological Factors that Inhibit Seeking Help. Journal of Counseling & Development, 85(4), 410-422.

Westerman, D., Van Der Heide, B., Klein, K.A., & Walther, J.B. (2008). How Do People Really Seek Information about Others?: Information Seeking across Internet and Traditional Communication channels. Journal of Computer-Mediated Communication, 13(3), 751-767.

Wynn, A.J. (2009). An Investigation of the Contributions of Gender, Shopping Orientation, Online Experience, and Website's Interactive Features to Consumers' Intentions to Engage in Apparel E-commerce Shopping. Dissertation, (UMI No. AAT 3387047) Retrieved June 30, 2011 from ProQuest Dissertations and Theses database.