

The Examination of Academic Self-Efficacy and Academic Help-Seeking of Higher Education Students Taking an On-Campus or Online General Education Course in Family and Consumer Sciences

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The purpose of this study was to examine undergraduate college students' beliefs and behaviors related to academic self-efficacy and academic help-seeking in two teaching modalities, at a public university in Southern California. Participants were enrolled in either an online or on-campus undergraduate, general education course in family and consumer sciences, during the Fall 2014 semester. This study employed a non-experimental design and quantitative approach to assess students' self-efficacy beliefs and help-seeking behaviors at the beginning and towards the end of the course. Students who took the course in the on-campus format had higher academic self-efficacy and help-seeking behaviors at the end of the semester than students in the online format.

With the increase in distance education in higher education, students with barriers such as family and professional responsibilities (Kim, Kwon, & Cho, 2011) now have increased opportunities to take coursework online. The National Center for Educational Statistics (n.d.) has defined distance education as the use of technology to deliver instruction to students who are separated from the instructor. Higher education institutions have been working to meet the needs of a new era of college students who are able to use and access the internet (Nora & Snyder, 2008). The surge in technology use has led to the growth and emergence of online education and distance learning programs (Braun, 2008; Nam & Saiki, 2011). Family and consumer sciences (FCS) programs are no exception to this growth. Stewart, Goodson and Miertschin (2012) stated: "Family and Consumer Sciences educators can play a fundamental role, based on our integrative focus and professional orientation, in contributing to rigorous best practices in online education" (p. 15).

Rehm, Allison, Bencomo, and Godfrey (2013) indicated that FCS faculty from around the world are participating in online learning. These authors highlighted FCS online programs involved with online course design and instruction and the models of education these programs used. Online programs and courses give new opportunities to students to take FCS courses and complete degrees in FCS, meeting the needs of students and preparing them for the field. For example, the Great Plains Interactive Distance Education Alliance is a collaborative project of multiple universities that adapts FCS curriculum to an online environment that mimics the on-

campus experience (Rehm et al., 2013). Growth in online enrollment is expected to continue (Rehm et al., 2013).

With the increase in distance education programs, there are some challenges for undergraduate students as they cope with new formats. Academic self-efficacy is one motivational factor that is tied to academic success. Bandura (1986) defined self-efficacy as the belief that someone holds about themselves which includes one's capability for performing an activity. Artino (2008) found that a student's self-efficacy beliefs were a significant predictor of overall satisfaction with online courses and had an impact on student performance in a distance education environment. A student's self-efficacy beliefs were also a positive predictor of overall satisfaction with online courses and impacted student performance (Artino, 2008). Not all courses or instructors provide classroom strategies to foster self-efficacy (Majer, 2009).

Another motivational factor tied to academic success is academic help-seeking. Help-seeking is defined as "an achievement behavior involving the search for and employment of a strategy to obtain success" (Ames & Lau, 1982, p. 414). Help-seeking behaviors are often related to academic success and student achievement (Karabenick, 2003; Kitsantas & Chow, 2007). Given that college students may be more likely seek help from teachers than students in other groups (Karabenick, 2003), with the increase in distance education in higher education, there are now additional possibilities for academic help-seeking (Cheng, Liang, & Tsai, 2013). Additional help-seeking possibilities need to be considered when designing an online course.

The purpose of this study was to determine whether undergraduate students in a FCS class exhibited change over time in academic self-efficacy beliefs and academic help-seeking behaviors dependent on the class format. This study sought to extend the literature by increasing the awareness of faculty and administrators regarding the ways their courses encourage and enhance their students' academic self-efficacy and help-seeking behaviors. When designing a course, successful integration of academic self-efficacy and help-seeking skills can positively encourage academic success for the undergraduate student. Classroom strategies and instructor support can provide students with the opportunities needed for increased academic self-efficacy and increased help-seeking behaviors.

Review of Literature

Academic Self-efficacy

Academic self-efficacy refers to a student's perceptions of their competence to do their class work (Midgley et al., 2000) and to the beliefs that people hold about themselves, including one's capability for performing an activity (Bandura, 1986, 1997). According to social cognitive theory, self-efficacy beliefs provide the foundation for motivation, well-being, and personal accomplishment (Bandura, 1986, 1997). Academic self-efficacy is a key process in student achievement and the learning process in higher education (Clercq, Galand, Dupont, & Frenay, 2013) and is also associated with effective learning and study skills (Robbins et al., 2004).

Understanding the role that self-efficacy plays in academic success is important because individuals form their self-efficacy beliefs through mastery experience, vicarious experience, social persuasions, and physiological reactions (Pajares, 1996). Based on these experiences, students enter the university with a set of beliefs about their abilities (Clercq et al., 2013). Self-efficacy and goals toward learning can also assist with student retention, play a part in distance education and promote student academic success (Hsieh, Sullivan, & Guerra, 2007). Self-efficacy influences how people feel, think, behave and motivate themselves (Bandura, 1993). When students feel capable, their motivation can lead to positive learning habits and self-

regulatory skills (Pintrich & De Groot, 1990; Pintrich, 2000). Bandura (1993) stated that personal accomplishments require skill, but also self-belief of efficacy.

Academic Help-seeking

Karabenick and Knapp (1991) defined two different forms of help-seeking, which are executive help-seeking and instrumental help-seeking. Executive help-seeking includes more aid from others to find the answer, while instrumental help-seeking includes minimum involvement from others to find a solution. Kitsantas and Chow (2007) stated that college students have multiple formats to seek assistance that provide the flexibility for students to ask questions and for the instructor to provide a quick response. The researchers also said that classroom focus, students' perceptions and beliefs, and the instructor's instructional approach and openness are all factors that encourage or discourage help-seeking. Kitsantas and Chow (2007) also found that students felt less threatened when they seek help from peers and that they engaged in more formal help-seeking from instructors in an online learning environment. These findings have implications that the course structure and instructor availability can assist with help-seeking behaviors. Kitsantas and Chow (2007) discovered that students in online courses felt less threatened to seek help than students in traditional learning environments and preferred formal sources for assistance, rather than peers. These researchers stated that students preferred email because it gave them an opportunity to construct their question and students were able to participate in private dialogue.

With the change in student demographics in higher education, many students have physical constraints and time restrictions that make the use of online help-seeking an attractive option (Ke, 2010). Online help-seeking behaviors such as information searching, formal query, and informal query (Cheng, Liang, & Tsai, 2013) can be emphasized as resources for help-seeking, in addition to a learning environment that encourages help-seeking (Karabenick, 2004).

Methodology

This study, using a quantitative approach, sought to compare academic self-efficacy and academic help-seeking beliefs and behaviors of on-campus and online students to determine whether statistical differences existed. Surveys were administered online.

Sample Selection

Students in online and on-campus sections were asked to complete a self-report questionnaire at the beginning of the semester when classes began and, once again, at the end of the semester. The first survey included questions focusing on students' beliefs related to help-seeking skills and academic self-efficacy. The second survey consisted of questions related to academic self-efficacy, academic help-seeking behaviors, and the mode or modes selected of academic help-seeking. The instrumentation used in this study comprised questions divided into identified demographic characteristics, measured academic self-efficacy, help-seeking beliefs, help-seeking behaviors related to academic help-seeking skills, and the mode or modes selected of academic help-seeking. For this study, formal help-seeking referred to seeking help through the instructor or teacher assistant and informal help-seeking referred to seeking help through peers. The survey was voluntary and administered via a link in the online classroom management system through Qualtrics.

Instrumentation

Academic self-efficacy was measured with the eight-item *Self-Efficacy for Learning and Performance* subscale of the *Motivated Strategies for Learning Questionnaire* (MSLQ) developed by Pintrich et al. (1991). This is measured by a seven-point Likert scale. In particular, the scale examines two aspects of expectancy, which include expectancy for success and self-efficacy. The original subscale had a Cronbach's alpha of .93. In the current study, the Cronbach's alpha was .96. Sample items included: "I'm certain I can master the skills being taught in this class;" "I expect to do well in this class;" and "I'm confident I can understand the basic concepts taught in this course."

Academic help-seeking beliefs and academic help-seeking behaviors were both measured. Two different subscales were combined to measure help-seeking beliefs:

Beliefs. To measure beliefs, one of the subscales utilized was from the MSLQ (Pintrich et al., 1991), which consisted of four items and has a Cronbach's alpha of .52. This is measured by a seven-point Likert scale. The other help-seeking subscale was taken from Karabenick (2003), which has three items and a Cronbach's alpha of .66. The original help-seeking scale (Karabenick, 2003) contained five subscales, however this survey only used the formal versus informal help-seeking subscale. This was measured by a five-point Likert scale. In the current study the Cronbach's alpha was .60. Sample items included: "If I don't understand the material in this course, it is important that I ask another student in the class for help." "It is important to identify students in this class whom I can ask for help if necessary." "If I were to seek help in this class I would ask the teacher rather than another student." "In this class, the teacher would be better to get help from than would a student."

Academic Help-seeking Behaviors. To determine academic help-seeking behavior and frequency, questions were administered in a post survey to determine how often help-seeking was done. To assess the mode of contact, the post-survey questions were related to who did students seek help from and how, which would include email, discussion board, etc. Sample items included: "During this class, how often did you seek help and from whom?"

Collection of Data

All data were analyzed in SPSS using independent samples t-tests. A general education child development and family studies course housed in the Department of FCS at a four-year university in Southern California was examined in this study. This course focused on issues of stress and family coping. Due to sensitive course content, the class was taught by marriage and family therapists. Course topics included substance abuse, illness, trauma, and family stress. Students had a choice to take this course in an online or on-campus setting. The online course was offered in an asynchronous format.

The undergraduate course was conducted over a sixteen-week semester in the fall of 2014 when data were collected. The study was approved through the university institutional review board. The online sections had four different instructors. The on-campus sections also had four different instructors. The instructors emailed the study rationale and survey link to 400 enrolled students during the first three weeks of the course and the last three weeks of the course. The link took students to the informed consent page where they could not move forward without consent. There were 220 online students and 180 on-campus students enrolled in the course. The incentive for completion of both surveys was a \$25.00 gift card raffle. For both the pre-course survey and the post-course survey, students received two reminder emails from their instructors.

Students who participated in this study were sophomores and seniors. Most of these students were Asian, African-American, Hispanic, and White. In the pre-course survey there were eight male and 36 female respondents. With regard to the format and the respondents, there were 15 online students, 28 on-campus students, and one student who chose not to answer the format. In the post-survey there were three male respondents and 32 female respondents. With regard to the format and the respondents, there were 20 online students, 14 on-campus students, and one student who chose not to answer the format. Responses from students who did not answer the format question were thrown out. Students' ages ranged from 19 to 38 years old, and the average age for the students who participated in the study was 23 years old.

Limitations

This study was a correlational study. In regard to the sample size, the response rate was limited by the online nature of the data collection; a phenomenon cited in the literature (Converse, Wolfe, Huang, & Oswald, 2008; Fricker & Schonlau, 2002). The variety of instructors who taught the course was also a limitation. Even though the FCS course content and syllabi were very similar, the opportunities provided for the scaffolding of academic self-efficacy might have been different, due to differences associated with the instructors or methods of teaching they employed.

Results

The goal of this study was to determine whether undergraduate students in a FCS class exhibited change over time in academic self-efficacy beliefs and academic help-seeking behaviors dependent on the class format (on-campus and online). An independent-samples t-test was conducted to compare academic self-efficacy of students who took a course in either an online format or on-campus format in the beginning of class. There was no significant difference in the scores for online ($M = 3.31, SD = 1.07$) and on campus ($M = 3.78, SD = .80$) conditions; $t(34) = -1.52, p = .137$. Therefore, there were no significant differences in the academic self-efficacy of students in the online versus on-campus course at the beginning of the semester when the pre-course survey was administered.

An independent-samples t-test was conducted to compare academic self-efficacy of students who took the course in either an online format or on-campus format at the end of class (Week 13 of the semester). There was a significant difference in the academic self-efficacy scores for online ($M = 3.99, SD = .78$) and on campus ($M = 4.52, SD = .50$) conditions; $t(31) = -2.18, p = .037$. Thus, on-campus students had higher self-efficacy scores compared to the online students at the end of the course.

An independent-samples t-test was conducted to compare help-seeking skills of students who took a course in either an online format or on campus format in the beginning of class. There was no significant difference in the scores for online ($M = 2.40, SD = .51$) and on-campus ($M = 2.40, SD = .34$) conditions; $t(40) = .056, p = .956$. Hence, there were no significant differences in the self-regulation of students in the online versus on-campus course.

An independent-samples t-test was conducted to compare help-seeking behaviors of students who took a course in either an online format or on-campus format at the end of class. As Table 1 shows, there was a significant difference in the scores for online ($M = 1.60, SD = .40$) and on campus ($M = 2.05, SD = .62$) conditions; $t(29) = -2.49, p = .019$.

Table 1

Results of Independent T-test of Online and On-campus Students at the End of Class

Outcome	Group						P-value		
	Online			On-campus			t	p	df
	M	SD	n	M	SD	n			
Self-efficacy	3.99	.78	20	4.52	.50	13	-2.18	.037*	31
Help-seeking Behaviors	1.60	.40	18	2.05	.62	13	-2.49	.019*	29

* <.05

Table 2 displays the frequency which students sought assistance from their instructors and peers throughout the semester. On-campus students engaged in more help-seeking behaviors compared to online students. On-campus students sought more help from the instructor and peers and more frequently, compared to the online students. For example, when looking at the frequencies, there were eight students who did not seek any help from the instructor or peers, compared to two students from the on-campus group who did not seek any help from the instructor or peers, throughout the semester.

Table 2

Number of Participants Seeking Help

	Online (n=20)		On-campus (n=14)	
	Instructor/TA (Formal)	Peer (Informal)	Instructor/TA (Formal)	Peer (Informal)
	More than twice a week	1	1	0
1-2 times per week	0	0	0	4
1-2 times per month	3	2	2	4
1-2 times per semester	8	10	10	4
Not at all	8	7	2	2

Discussion

The results of this study indicate that there was a significant difference in academic self-efficacy scores at the end of the class. On-campus students had higher academic self-efficacy, compared to the online students. Course assignments and course content were almost identical, which should have contributed to the students feeling efficacious. On-campus students may have reported higher self-efficacy due to the fact that they were not graded on their participation;

however, online students were graded for their participation. It might also be that on-campus students felt more connected to their instructor through weekly personal contact, which may have increased their own feelings of positivity and ability to seek help if needed.

Also within this study, there was a statistical significance when looking at differences in academic help-seeking behaviors by method of program delivery in the second survey. In this survey, on-campus students reported more help-seeking behaviors. This finding could be related to the connection that the on-campus students had with their instructor and the opportunities provided for academic help-seeking. Karabenick and Knapp (1991) stated that measuring academic help-seeking can be done through assessing the learning environment and the forum provided for assistance.

Since there was a statistical significance with academic help-seeking behaviors between the course formats, it is essential to state that some frequencies showed that there were differences with formal and informal help-seeking. Students in both the online and on-campus formats stated that they sought help from the instructor, peers, and other sources. However, when looking at the frequencies, there were more online students who stated that they did not seek out any help from instructors or peers compared to on-campus students who did. The lack of attachment to the course could be the reason that students did not utilize help-seeking behaviors involving peers or instructors, as much as the on-campus students did. Mahasneh, Sowan, and Nassar (2012) found that students who had an attachment to the class they were taking were more likely to seek help for it.

Recommendations and Implications

With the increase of distance education courses and the inconsistent research on how students are supported in the area of academic self-efficacy and academic help-seeking behaviors, it is imperative to discuss the implications of this study. The following recommendations are made to assist with student academic self-efficacy and academic help-seeking behaviors. These recommendations involve both administration and course instructors, regardless of course format.

- Instructors should continue to support students and their academic self-efficacy through course design and assignments. Academic self-efficacy may be supported by assisting students with the developing of skills needed in an online learning environment. Hseih, Sullivan, and Guerra (2007) stated that students need to acquire the skills to perform successfully on academic tasks and also believe they are capable to do so. The instructor could provide a recorded tutorial on how to use the tools required for an online course. It is also important to assess the course and the instructors to ensure they continue to support students and their self-efficacy throughout the entire semester.
- Multiple avenues for students to seek assistance should be maintained throughout the course. Avenues that may provide such assistance include email, chat rooms, on-campus office hours, and discussion boards. Some of these avenues were available in the course involved in this study. However, instructors need to incorporate as many as possible to encourage help-seeking behaviors. In addition, Schworm and Gruber (2012) discussed the idea of using cooperative online prompts to encourage help-seeking behaviors, which fostered students' help-seeking activities.

With technological developments and distance education, learning can occur anywhere and can occur at any time (Kim et al., 2011). Future studies can expand on this construct through more quantitative data collection using more than one course and perhaps in other disciplines beyond FCS. To increase the response rate for future studies, it may be helpful for the researcher to offer extra credit or a small gift card for each participant. In addition to the quantitative data, the incorporation of qualitative data could provide richer insights about students' beliefs and behaviors with regard to how the course supports their academic self-efficacy and help-seeking behaviors. The qualitative data would be helpful in looking at how students did and did not feel supported in the course, in regard to academic self-efficacy and academic help-seeking behaviors. Based on the results of that study, administration and faculty in FCS can take the quantitative and qualitative data and design distance education courses that incorporate the students' behaviors and make changes to online instructional design to supports academic self-efficacy and academic help-seeking behaviors. In addition to designing the course with FCS faculty assistance, administrators can ensure that future instructors are also trained and mentored when teaching those particular courses. Training of instructors can include special topic workshops, such as developing an interactive online course, one-on-one mentoring, and linking faculty with experts in adult learning.

Conclusion

There are concerns related to course design with the increased offerings of distance education courses (Rovai & Downey, 2010). These concerns are relevant due to the impact that these constructs may have on a student's academic success. Academic self-efficacy is associated with effective learning and study skills (Robbins et al., 2004), and is therefore important to understand in multiple teaching environments. A student's academic self-efficacy plays a role in distance education and academic success. Yang and Taylor (2013) found that a student's self-efficacy predicted their help-seeking and may have direct and indirect effects on their performance. Students who have low self-efficacy are less likely to seek help (Roussel, Elliot, & Feltman, 2011). Cho and Jonassen (2009) stated that students who had more self-efficacy to interact with instructors and the online community were more likely to use active interaction strategies, which included writing, responding, and reflection. In this current study, the online course did offer opportunities for interactions between instructor and peers, which included the use of graded discussion boards that required active participation. On-campus courses did not have a graded discussion board requirement.

Distance education may be the answer for many, but, as with any instruction, it must be well planned (Johnston, Killion, & Oomen, 2005). This study aimed to look at higher education students taking a general education course in FCS and their academic self-efficacy and academic help-seeking behaviors. This study shed light on the importance of designing online courses that encourage academic self-efficacy and help-seeking behaviors. In this study, on-campus students exhibited higher academic self-efficacy scores and had higher academic help-seeking behaviors compared to online students.

Rehm et al. (2013) stated that FCS faculty have exciting online opportunities to help students obtain knowledge, construct goals, build learning communities, and experience growth in their everyday work and lives. With the increase of distance education courses being offered, student motivators, such as academic self-efficacy and opportunities for academic help-seeking, must be considered and fostered in course design. FCS faculty can accomplish this by implementing strategies that make the most of technology (Rehm et al., 2013) and developing

activities that support students in regard to self-efficacy and help-seeking behaviors. Administrators must be involved in the process of course design and training of instructors. FCS professionals can and should be on the cutting edge of addressing this issue for optimum student success.

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