

4-1-2021

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DOI: 10.30707/IJBE161.1.1648090824.279374

Available at: <https://ir.library.illinoisstate.edu/ijbe/vol161/iss1/7>

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An Examination of the Factors Leading to Students' Preference and Satisfaction with Online Courses

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ABSTRACT

This paper presents the results of a one-year study of undergraduate business students' preference and level of satisfaction with online instruction at one university. A questionnaire was voluntarily completed by 305 undergraduate business students during the 2019-2020 academic year. Multiple regression analysis revealed that prior experience with online courses, ease of communication, personal benefits - convenience of taking online courses and expectation of improving GPA were positively associated with satisfaction in online courses relative to face-to-face courses. Learning benefits from online courses such as availability of course materials did not have a significant relationship. Satisfaction was positively related to preference for online courses. Demographic factors such as age and gender had no significant effect on satisfaction with online courses.

Keywords: eLearning, online, face-to-face, preference, satisfaction

Many higher education institutions are increasing their online course offerings and programs. As a result, the numbers of students enrolled in online courses continue to increase (Seaman, Allen & Seaman, 2018). Based on federal data from over 4,700 colleges and universities, more than 6.3 million students in the USA, most of whom were undergraduates, took at least one online course in fall 2016, a 5.6% increase from the previous year. Seaman et al. (2018) has reported growth in online enrollment for fourteen consecutive years. Public colleges and universities had the largest growth in online course enrollment between fall 2015 and 2016, at 7.3%. Roughly two-thirds of all online students enrolled in programs at public schools. Online course enrollment at private nonprofit schools between fall 2015 and

2016 rose 7.1%. However, enrollment decreased at for-profits schools. Although the rate of online course enrollments is increasing, the rate of on campus course enrollment continues to decline (Allen, Seaman, Poulin, & Straut, 2016). A new set of potential students who demand access to flexible learning opportunities have emerged through trends in globalization and the global economy (Hanover, 2014). Globalization and rapid technological advances have also brought about generational shifts in values that are re-shaping the way university students view education. The changing dynamics of a technology-driven century has altered the way higher education is perceived, delivered, and even studied (Hanover, 2014). In education, and especially at the post-secondary education level, adoption of distance learning is fast becoming an alternative and attractive option as it offers better access and flexibility.

There are several benefits for students taking courses from remote locations including the flexibility of studying according to their own schedules. Moreover, for universities that can serve more students without physically housing the courses, online learning also brings its own set of challenges. Online learning often results in significantly higher student attrition than face-to-face education (Kauffman, 2015). Studies indicate students enrolled in online courses are more likely to drop out than those in traditional face to face classes (Patterson & McFadden, 2009). Another study highlights the dropout rate directly relating to student satisfaction with their online learning experience (Park & Choi, 2009). Results of such studies may not be generalizable because these students typically self-select online courses and therefore, may not be representative of the general population of students.

As the number of enrollments in online courses in higher education increases, so does the need for research that identifies factors that increase student satisfaction and learning. Some studies reported successful experiences of students within the online learning environments (Lim, 2001; Womble, 2007), while other studies found that some learners had difficulties with online learning (Martin, Tutty & Su, 2010). Although students are using different types of technologies in their day-to-day life, the skills needed for online learning are not just bounded by technical skills; it also involves learning and interaction skills in a technology-based environment (Shen, Cho, Tsai & Marra, 2013). The absence of face-to-face communication and interaction, facial expression and body language are only some of the limitations of the online learning settings. It is necessary to understand how technology is used to deliver content and how these environments can enhance student learning and satisfaction. Evaluating student satisfaction allows educational institutions to detect areas for development and improvement for online learning (Kuo, Walker, Schroder & Belland, 2014).

This study examines the relationship between student perceptions of prior online learning experiences, ease of communication, personal benefits, and learning benefits to satisfaction with online courses relative to face-to-face courses. Understanding factors that influence student satisfaction with online courses is relevant for better course design and improving retention in these courses.

Literature Review

Isaac Pitman, recognized as the pioneer of distance education, began teaching shorthand by correspondence in 1840 in Bath, England (Verduin & Clark, 1991). Over a hundred and seventy-five years, researchers and theorists have developed distance learning theories. The increased popularity of distance learning has been greatly enhanced by the integration of digital and telecommunication

technologies. According to Abdulla (2004), recent theories have been focusing more on changes in student learning and teacher roles. Keegan's (1996) theory focused on how technology can help the learner be more independent. The emphasis of this theory is on how students and teachers are freed from the need to live in the same physical space. In this sense, students are free to choose learning formats, combining media and methods to positively impact teaching and learning. Similarly, Peters' (2002) theory of distance learning examines the effect of technological changes on distance learning. This theory posits that technology will redefine the roles of learners and teachers, making learning more autonomous and independent of teachers. Instructor's role will become more like a facilitator or guide who supports the learners.

Student satisfaction with online learning is associated with dropout rates, persistence, motivation in taking further online courses, student success, and student commitment to an online course or program (Ali & Ahmad, 2011; DeBourgh, 1999; Kuo, Walker, Belland & Schroder, 2013, Kuo et al., 2014). Therefore, student satisfaction with online learning should be studied and investigated because of its impacts on recruitment and retention initiatives. Evaluating student satisfaction allows educational institutions to detect areas for development and improvement of online learning (Kuo et al., 2014). Alshare & Lane (2011) showed that student attitude had a significant direct impact on student-perceived learning outcomes and satisfaction. Artino (2007) indicated that military students' motivational beliefs about a learning task and their perceptions of instructional quality are related in important ways to their overall satisfaction with online instruction.

Another factor that influences student satisfaction and perceived learning within online learning is the level of interaction (Fredericksen, Pickett, Shea, Pelz & Swan, 2000). Three types of interaction exist in distance education: learner-content, learner-instructor, and learner-learner. These types of interaction are critical for a successful learning experience (Cho & Kim, 2013). Interactivity is also an important component of satisfaction and persistence for online learners (Croxtton, 2014). Kuo et al. (2013) showed that learner-instructor interaction and learner-content interaction were good predictors of student satisfaction, but learner-learner interaction was not. Despite its strong potential, many academics remain unconvinced of the effectiveness of asynchronous online learning (Sher, 2009; Woo & Reeves, 2008). Therefore, increasing the quality of asynchronous Web-based learning and resulting satisfaction remain an important and unmet challenge. One of the key components of good teaching and learning is interaction. Indeed, it can be argued that the success or failure of online learning depends on the level and quality of interaction. Interaction between learners, instructors and content is believed to play an essential role in online formal education. Interaction was mostly absent or limited during early stages of distance education (Abrami, Bernard, Bures, Borokhovski & Tamin, 2011).

Other predictors of satisfaction with online courses have included student characteristics such as self-discipline (Moore, 2014). Demographic variables such as the number of online courses taken, gender, and academic status predicted online learning self-efficacy. Furthermore, the authors found that online learning self-efficacy predicted students' online learning satisfaction (Shen et al., 2013). Dziuban, Moskal, Thompson, Kramer, DeCantis & Hermsdorfer (2015), identify three underlying satisfaction components: engaged learning, students' ability to initiate and control their own actions in the learning environment, and assessment. Perceived self-efficacy is a critical factor that influences learners' satisfaction with online learning. Online learning effectiveness was influenced by multimedia instruction,

interactive learning activities, and online learning system quality (Liaw, 2008). Personal relevance, instructor support, active learning, and authentic learning, were significantly and positively related to student satisfaction (Sahin, 2007).

Through their research Jung, Choi, Lim & Leem (2002), examined several factors that influence students' satisfaction with online learning, which can be categorized into three themes: course quality, interaction-communication, and learners' characteristics. Measures of course quality include organization of course material, clear course objectives and expectations, assessment strategies, and perceived ease of use (Li, Marsh & Rienties, 2016; Sun, Pei-Chem, Tsai, Finger, Chen & Yeh, 2008). Students are more satisfied with well-designed online courses that have clear goals and are easy to navigate (Sun et al., 2008).

Another line of research focus is on the effect of human social interaction on student satisfaction. Shea, Pelz, Fredericksen & Pickett (2002), concluded that students who have more opportunities to interact with instructors and receive constructive and detailed feedback are more satisfied with their online learning experiences. Opportunities to communicate and have discussions with their classmates also results in greater satisfaction with online learning experiences (Shea et al., 2002). Some researchers who have examined the role of course design and interaction on student satisfaction have emphasized the crucial role of course design and the quality of learning materials impact on student learning and overall course satisfaction. To have a deeper understanding of student satisfaction, (Sahin, 2007) investigated and analyzed characteristics of online learning environments, and collected data using the Distance Education Learning Environments Survey (DELES), which was originally developed by (Walker, 2003). The study found that all six DELES scales, which are: personal relevance, instructor support, student interaction and collaboration, active learning, student autonomy, and authentic learning, were significantly and positively (ranges from $r = .22$ to $r = .38$, $p < .01$) correlated with student satisfaction.

Hypotheses

The main purpose of this study is to identify student perceptions and beliefs that are associated with satisfaction with online courses relative to face-face-courses. Specifically, this study examines following hypotheses:

Prior Experience with Online Instructors:

Online courses are common, and students typically have prior experience with the online learning environments. Their experience with online instructors would have an influence on expectations of satisfaction from an online course (Abrami et al., 2011; Croxton, 2014). The consequences of prior experience influence future expectations. If students had a good experience with online instructors in the past, they expect satisfaction from a future online course. Conversely, a negative experience would lower expectations of satisfaction from an online course. Therefore, the following hypothesis is proposed:

H1: Prior experience with online instructors would be positively associated with satisfaction from an online course.

Personal Benefits from Online Courses

Students are motivated to take online courses for multiple reasons. Past research shows that convenience of online courses is an important factor in choosing online courses (Broadley & Trinidad, 2008). The use of online learning allows self-pacing. Usually, students can study at their own pace. It therefore increases satisfaction and decreases stress (Codone, 2001; Amer, 2007; Urdan & Weggen, 2000; Algahtani, 2011; Marc, 2002; Klein & Ware, 2003). Some students also take online courses because they perceive them to be easier and feel that they have a better chance to improve their grade point average (GPA). The greater the perceived personal benefits from an online course, the more likely the satisfaction from an online course. Therefore, the following hypothesis is proposed:

H2: Personal benefits from online courses would be positively associated with satisfaction from an online course.

Ease of Communication

Prior research has shown that students find it easier to communicate with their instructors and other students in the online environments. In a face-to-face environment, some students may feel inhibited to communicate with their instructor or even their peers. Constructive feedback is valued by students who study online (Mancuso-Murphy, 2007) particularly when it is immediate (Arbaugh, 2010). In one study, for example, investigators found that prompt feedback was a significant predictor of student perceived learning and satisfaction (Arbaugh & Hornick, 2006). Further, Lang & Costello (2009) found a range of factors that influenced student satisfaction with their learning experience in discussion boards. An online environment has been shown to facilitate better communication between students and instructors (Shea et al., 2002).

Therefore, the following hypothesis is proposed:

H3: Perception of ease of communication in online courses would be positively associated with satisfaction from an online course.

Learning Benefits of the Online Environment

Online environments offer multiple learning benefits to students. Online courses have been found to be conducive to students who favor self-regulated learning (You & Kang, 2014). The availability of course materials in the online environments provide the opportunity to review course concepts and potentially obtain a better understanding of them (Sun et al., 2008). Course materials posted online include lecture notes, presentations, videos, and articles; this may lessen the financial burden by providing more opportunity for a lesser cost (Bowen, Chingos, Lack & Nygren, 2014). Online environments also offer various tools that convey concepts interactively through exercises and assignments. These can improve analytical skills among students. Research has shown problem-solving skills can be developed using online teaching methods (Gunawardena, Linder-Vanberschot, LaPointe & Rao, 2010). Students who have experienced such assignments that improved their analytical skills would likely expect similar experiences and therefore expect more satisfaction in an online course in the future. Alternatively, if

notes were not posted online for review or, if assignments lacked depth and did not sharpen analytical skills, then students are likely to expect lower satisfaction from a future online course. Therefore, the following hypothesis is proposed:

H4: Learning benefits from online courses would be positively associated with expectations of satisfaction from an online course.

Effect of Satisfaction on Preference for Online Course

Satisfaction with a product or a service leads to customer loyalty. Anticipated satisfaction from an online course would be positively associated with preferences and eventual choice. In a study of online students to investigate levels of satisfaction with online learning (Cole, Shelley, & Swartz, 2014), the results showed 46% of the students were satisfied with their course, citing convenience, structure, and learning preferences as reasons. Therefore, the following hypothesis is proposed:

H5: Satisfaction from online courses would be positively associated with preference for online courses.

Methods

The purpose of this study is to examine business students' preference and satisfaction with online course delivery method in relation to business courses. The study seeks to explore students' level of satisfaction with this learning instructional mode. The approach for this study was to replicate prior research procedures and use the survey instrument developed by Fortune, Shifflett, and Sibley (2006) which measured learning perceptions of online vs. face-to-face instruction of students enrolled in business communication courses in the two different learning environments: online and face-to face. Data for this study was collected from undergraduate student survey responses from business majors taking courses online in the College of Business at a Historically Black College and University (HBCU) in the 2019-2020 school year. The HBCU designation is for institutions of higher education in the United States that were established before the Civil Rights Act of 1964 with the intention of primarily serving the African American community.

Most respondents had taken an online class previously. The study involved students enrolled in online courses in three business school disciplines as seen in Table 1. Students were mostly undergraduate business majors in their third or fourth year of study. The university at which the study occurred has an open admission policy with students who attained a score of 19 ACT/900 SAT (Verbal and Math Scores only) or higher. Students majoring in business must meet certain grade requirements in prerequisite courses to pursue studies in the college of business. Students were recruited through the instructors and course announcements and gave their consent. Five instructors participated in the study by allowing a few minutes during their classes for the students to voluntarily participate in the survey. See Appendix A for the survey instrument. The study and the survey were approved by the university's institutional research board.

The survey instrument consisted of two sections. Section I had 9 demographic questions, section II with 28 statements with a five-point Likert-type scale measurement that ranged from 1 (strongly disagree) to

5 (strongly agree). Section II assessed perceptions and attitudes about online courses, and comparison of online learning environments to traditional learning environments on dimensions as seen in the Measures section and Table 2.

Data Collection and Analysis

Students participated using a link to an online Qualtrics survey. Responses were then downloaded to an Excel spreadsheet. All data were checked for completeness or missing values. All responses entered as 'other' were reviewed ($n = 10$) to determine if they should also be coded as one of the fixed responses. Very few respondents had significant missing data with fewer than three-quarters of the eligible questions not completed. Incomplete question responses were deleted from the analysis. Responses from 5 respondents were not included. To ensure further confidentiality and anonymity, results are presented in aggregate and summary statistics. Data was analyzed with SPSS version 23.

Satisfaction with instructors in prior online courses was measured through three items that tapped into respondents' prior experiences with instructors in online courses. These were: online course instructors were always engaging, instructors responded to student inputs and emails within a timely manner, I am very satisfied with my online instructors. These were summed, and mean was used for analysis. The internal reliability of this scale was acceptable (Cronbach alpha = .879).

The variable personal benefit from online courses was measured with three items: I take online courses because they are convenient and a better fit for my schedule; I take online courses because they are easier than face-to-face courses; and I believe that the online learning environment helps me to improve my grade point average. These items were summed, and mean was used for analysis (Cronbach alpha = .711).

Better communication in online courses was measured with two items: An online environment makes it easier for me to communicate with my instructor; and an online environment makes it easier for me to communicate with my classmates. These items were summed and mean was used for analysis (Cronbach alpha = .789).

The variable learning benefits of online courses was measured with two items: Critical thinking and analytical skills were developed in course assignments; and online course information gives me the chance to go back and review chapters, PowerPoint presentations, class discussions and videos. These items were summed, and the mean was used for analysis (Cronbach alpha = .772).

Results

Descriptive results were run; the sample consisted of responses from 305 students of which 300 were usable. Respondents encompassed 178 males and 122 females. Nearly 54% were between 18-21 years, and 29% were between 22 and 25 years. About 84% of the respondents were upperclassmen (either juniors or seniors). Self-reported grade point averages were evenly distributed. About 26% had GPA above 3.60, about 30% were between 3.20 and 3.50, and about 32% were between 2.80 and 3.10. Respondents came from several majors. The top majors were Supply Chain Management (18%) and

Marketing (17%). Other majors were General Business (14%), Information Systems Management (11%), Accounting (7%), and Hospitality and Tourism Management (6%). Respondents were predominantly African American (77%) More than 85% of the respondents actively checked their social media accounts several times a day. The sample characteristics are shown in Table 1.

Table 1
Sample Characteristics

Characteristics	Frequency	%	Characteristics	Frequency	%
Gender			Major		
Male	178	59	Supply Chain	55	18
Female	122	41	Marketing	51	17
			General Business	41	14
Age			Management	35	12
18 – 21 years	161	54	BIS	32	11
22 – 25 years	86	29	Hospitality	18	6
26 – 30 years	24	8	Human Resources	17	6
31 – 40 years	18	6	Finance	16	5
+40 years	9	3	Economics	3	1
			Other	10	3
Class/Year					
Freshman	3	1	Race		
Sophomore	33	11	African American	230	77
Junior	110	37	Caucasian	40	13
Senior	154	51	Other	30	10
GPA			Online Experience		
3.6 – 4.0	79	26	Completely Online	243	81
3.2 – 3.5	91	30	Hybrid	231	77
2.8 – 3.1	96	32			
1.0 – 2.7	34	11			

One-way analysis of variance (ANOVA) was carried out to test for differences in gender, age, and GPA. There was no significant difference between males (mean = 3.39) and females (mean = 3.35) on their satisfaction from an online course. There was no significant difference in preference for online courses as well. Two groups were created for the age variable. One group was between 18 to 21 years of age and the other was older than 21 years. One-way ANOVA with satisfaction with an online course and preference for online courses as dependent variables and age as the factor was used. There was no significant difference in satisfaction with online courses for those between 18-21 years (mean = 3.33) and those older than 21 years (mean = 3.40). No significant difference was observed for preference for online courses. No significant differences were seen for GPA as well.

Hypotheses testing

A multiple linear regression was done with the dependent variable was “I am more satisfied with the online learning environment than the face-to-face classroom learning environments.” The independent variables were satisfaction with instructors in prior online courses, personal benefits from online courses, learning benefits of online courses, and better ability to communicate in online courses. The regression model was significant with an R-squared value of 0.460 ($F_{4,276} = 58.86, p < .0001$). The coefficients of the regression model are shown in Table 2.

Table 2

Multiple Regression Predicting Satisfaction with the Online Platform

Independent Variables	Unstandardized Coefficient	Std. Error	Standardized Coefficient β	t-Statistic	p
Satisfaction with instructors in prior online courses	.126	.074	.107	1.696	.091
Personal benefits from online courses	.722	.077	.558	9.351	.000
Better communication in online courses	.168	.061	.148	2.753	.006
Learning benefits of online courses	-.055	.080	-.046	-.695	.488

Note: Dependent variable: “I am more satisfied with online learning course”

Satisfaction with prior online courses had a positive and significant effect on satisfaction with online courses compared to face-to-face courses ($\beta = .107, p < .10$). In other words, prior experience with online instructors had a positive effect of satisfaction in online learning environments. Therefore, H1 was supported.

Personal benefits such as convenience of online courses, perception that online courses were easier, and expectations of higher grades in online had a significant positive effect on online satisfaction ($\beta = .558, p < .0001$). This was the largest effect on the dependent variable. Therefore, H2 was supported.

Perception of ease of communicating in online courses also had a significant positive effect on satisfaction judgment with online courses ($\beta = .148, p < .05$). The ability to communicate easily with instructors and other students is a good predictor of satisfaction with an online course. Therefore, H3 was supported.

Learning benefits of online courses such as ability to review materials and development of critical thinking did not have a significant effect on satisfaction with online course. Therefore, H4 was not supported.

Satisfaction with online courses compared to face-to-face courses was positively correlated with preference for online courses over face-to-face courses (Pearson's correlation coefficient, $r = 0.770$, $p < .00010$). Therefore, H5 was supported.

The summary results of hypotheses testing can be seen in Table 3.

Table 3

Summary Results of Hypotheses Testing

Hypotheses	Results
H1: Prior experience with online instructors would be positively associated with expectations of satisfaction from an online course.	Supported
H2: Personal benefits from online courses would be positively associated with expectations of satisfaction from an online course.	Supported
H3: Perception of ease of communication in online courses would be positively associated with expectations of satisfaction from an online course.	Supported
H4: Learning benefits from online courses would be positively associated with expectations of satisfaction from an online course.	Not Supported
H5: Satisfaction from online courses would be positively associated with preference for online courses.	Supported

These results support the previous study of Alqurashi (2019) whose regression results revealed that the overall model with all four predictor variables online learning self-efficacy (OLSE), learner–content interaction (LCI), learner–instructor interaction (LII), and learner–learner interaction (LLI) were significantly predictive of satisfaction and perceived learning. His study found that LCI was the strongest and most significant predictor of student satisfaction, but the current study found that personal benefits was the strongest.

Discussion and Implications

Higher education institutions offer many opportunities to take online courses and complete degree programs online because of the increasing demand by students. As the number of enrollments in online courses in higher education increases (Seaman, Allen & Seaman, 2018), so does the need for research to examine factors that play an important role of student satisfaction. Student satisfaction reflects how learners view their learning experience. It is considered one of five elements of quality online learning identified by the Online Learning Consortium (Moore, 2005). Student satisfaction in online courses should be studied and investigated because it is likely to have a direct effect on student intentions to enroll in online courses in the future. Student satisfaction will also have a bearing on persistence and retention in online courses. Understanding antecedents of student satisfaction would help faculty and institutions to design courses for better student experiences.

The results of this study indicate that personal benefit to students from taking online courses is the most influential factor on satisfaction. In this study, personal benefits accrued from convenience offered by

online courses, perception that online courses were easier, and expectations of higher grades. Online courses allow students a certain degree of autonomy to accommodate online courses in their schedule. Convenience was correlated to perceptions that online courses were easier and expectations of higher grade.

Prior experience with online instructors had a positive effect on satisfaction with the online learning environments. This supports a previous study with similar results. To determine whether preferences for an online or face-to-face delivery format were based on preconceived perceptions of online courses or perhaps influenced by actual experience with online course they have taken. Tichavsky, Hunt, Driscoll & Jicha, (2015) study was conducted using a bivariate analysis to determine whether having experience with an online course had any effect on student preferences. Regardless of experience with online courses, most students preferred face-to-face courses. However, 20% of those who had taken at least one online course preferred online courses, while only 4% of those without online experience preferred an online format. Conversely, 67% of students who had never taken an online course preferred a face-to-face class while 48% of students who have had an online course expressed a preference for face-to-face courses. As more students are exposed to online courses, their prior experience would be even more salient as an antecedent of satisfaction in online courses.

Online courses facilitate better communication between students as well as between students and instructors. This study found that perception of ease of communicating in online courses had a significant positive effect on satisfaction judgment with online courses. These results are consistent with findings from earlier studies (e.g., Shae et al., 2002; Seiver & Troja, 2014). Many other researchers have emphasized the importance of interaction in influencing student satisfaction in online learning (Abrami et al., 2011; Anderson, 2003; Cho & Kim, 2013; Croxton, 2014; Jung et al., 2002; Kuo et al., 2013; Kuo et al., 2014; Sher, 2009; Woo & Reeves, 2008). Finally, the present study also found that satisfaction with online courses compared to face-to-face courses was positively correlated with preference for online courses over face-to-face courses.

Results from this study did not support any association of perceived learning benefits and student satisfaction in online courses. Perceived benefits were operationalized as improvement in critical thinking and analytical skills and ability to review learning material in online courses. Given that students have the opportunity to reflect on concepts and review course materials, it was hypothesized that enhanced learning would be positively associated with satisfaction in online courses. It is possible that the perception of learning benefits may not be different in online and face-to-face environments.

Traditional learning is still the most prominent mode of delivering courses on most college campuses in the United States. Factors affecting student satisfaction in traditional learning have been researched to improve course quality and retention. Online learning has redefined student satisfaction research. It has caused the education research community to reexamine traditionally held assumptions that learning primarily takes place within a classroom. As a result of the development of the Internet, advances in computer technology, and virtual course delivery approaches have increased dramatically (Seaman, Allen & Seaman, 2018). Most educational institutions have offered distance-learning programs via course management systems. Katz, (2002), discussed the importance of building a distance learning system that is highly interactive and most closely resembles a regular college classroom to contribute

significantly to student satisfaction and achievement. Research has demonstrated that student characteristics, content, learning interactions, and technology use affect learner satisfaction (Ambe-Uva, 2006; Smart & Cappel, 2006; Bishop-Clark, Dietz-Uhler, & Fisher, 2007). The findings of the present study contributed to the ongoing discussion of these factors. Higher education administrators can have a better understanding about the demand for online course options since students' preferences for online courses had a positive effect on satisfaction. The faculty members can consider providing students with improvements in online course delivery. Students' prior experience with the online instructor indicate that personal benefits and ease of communication all had positive effects with their online course satisfaction. This information can be utilized by helping instructors to be more aware of the current situation so that they can use the information to improve their online course design and experiences for their students. This study did not reveal any significant association of demographic variables with satisfaction from taking an online course.

Conclusions

Many studies throughout the USA and the rest of the world have documented the factors that lead to students' satisfaction with online courses (Croxton, 2014; Dziuban et al., 2015; Ali & Ahmad, 2011; Hassan, Hamid, & Ustati, 2013). Success in online learning requires interaction between the learner, instructor, learners and technology (Alqurashi, 2019). More and more students are turning to online learning as it represents convenience for their busy and demanding lives. Technology is also changing at a rapid rate; new ways of obtaining and sharing information are being developed and applied to the higher education setting. With all these changes, it becomes even more important for colleges and universities to find ways to improve the quality of online learning to maximize learning, including effectively aligning technology with course content and instruction (Rogerson-Revell, 2015). This review has demonstrated that many factors play a role in satisfaction with and success in online learning. The challenge remains for institutions to design courses that meet students' needs and expectations by effectively integrating technology into content to facilitate engagement and deeper learning. Students for their part need to be self-disciplined and use technology to engage with other students and instructors. These can all contribute to students learning and satisfaction.

If students' expectations are not met, they might not be successful in their course or might not be retained in the online course or program. Chyung (2001) suggested tracking of online learners' initial active involvement of students in online courses, as it is predictive of their success. It is stated that students who are active in the first few weeks of the class are more likely to be successful in the course as lack of early engagement with the course is an indication of course dropout behavior (Chyung, 2001). This finding might be related to the fact that after students have experienced that their expectations are not met, they are likely to drop out of the course. Similarly, Wang & Newlin (2002) suggest that online instructors consider the reasons why students enroll in their classes and closely monitor the on-line, course-related activity of their students. They found that students' early behaviors were correlated with their final grades. Katz (2002) discussed the importance of building "a distance learning system that is highly interactive and most closely resembles a regular college lecture hall [...] to contribute significantly to student satisfaction and achievement" has become a vital task (p. 29). Research has demonstrated that student characteristics, content (Smart & Cappel, 2006; Bishop-Clark, Dietz-Uhler, & Fisher, 2007),

learning interactions, and technology use affect learner satisfaction (Ambe-Uva, 2006). The findings of the present study contributed to the ongoing discussion of these factors.

As online instruction grows in the form of flipped classrooms, hybrid classrooms, fully online courses, and massive open online courses, identifying effective practices will be important for the guidance of future course design. Instructors will need to modify their pedagogies for teaching face-to-face courses compared with online courses, but an establishment of best practices could ease the transition to online instruction. The body of literature on learning outcomes, student satisfaction, and student engagement in online courses is growing, but some gaps still need to be filled. In addition to learning outcomes, the affective responses of students to online education can provide information on creating both effective and engaging online learning experiences. Concerning student satisfaction with their online learning experience, (Hassan et al., 2013) found that students were generally satisfied. The results of this study support this finding.

Limitations and Directions for Future research

A limitation of this research is the operationalization of the dependent variable. A single item was used to assess satisfaction with taking an online course compared to a face-to-face course. This limits generalizability of the findings.

The ongoing pandemic has dramatically changed the delivery of courses in colleges. Most universities shifted to online learning platforms to provide continuity in education. Since the COVID-19 pandemic, the option of choosing between face-to-face and online courses no longer existed for most students and instructors. Understanding factors contributing to satisfaction in online courses in these conditions is a meaningful area for future research.

An important consideration for future research would lie in understanding the effectiveness of synchronous versus asynchronous online delivery of courses. Synchronous online courses are conducted in real-time while asynchronous courses do not require real-time interactions and students have the freedom to access course material at their own convenience. When campuses were closed in the early part of 2020, many institutions maintained existing face-to-face schedules by switching to synchronous online courses. The bulk of literature on online learning deals with learning in an asynchronous mode. It is important to understand how students respond to online courses that are mostly synchronous. Clearly, the convenience of taking online classes that accommodate students' schedules would no longer be salient. Other aspects such as effects of fatigue associated with long hours of consecutive synchronous classes are also important to investigate.

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