SDCA Asia-Pacific Multidisciplinary Research Journal
Volume 4, Issue 1, December 2022

Online learning satisfaction among college students from a higher education institution in Cavite

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Abstract

Online learning system has been implemented as prevention for the continuous spread of Covid-19 among schools worldwide. Satisfaction with this new normal educational system is a significant aspect in a successful education process. This study aims to determine the perceived online learning satisfaction among college students. Using the descriptive survey approach, 659 students answered a survey questionnaire of different online learning services and expected online learning activities. Results revealed that both online learning services and expected online learning activities are statistically significant with respective p-values of 0.000. It can also be determined that family (36.27%) has been the most received supplemental online academic learning support, whereas students are eager to take online courses again only if required (34.60%) by their instructors or professors. The study recommends that the institution should implement a HyFlex (hybrid-flexible) learning, which can integrate both face-to-face and online leaning through a set of courses.

Keywords: Covid-19; E-learning; Higher education institution; Online learning; Student satisfaction.

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To cite this article:
Abdon-Liwanag, B., Padohinog, E. C., & Balsicas, N. W. (2022). Online learning satisfaction among college students from a higher education institution in Cavite. *SDCA Asia-Pacific Multidisciplinary Research Journal, 4*(1), 12-18.

Introduction

In 2020, COVID-19 was designated a pandemic by the World Health Organization, dramatically disrupting academic activity and forcing the closure of most universities and colleges in an effort to limit the transmission of this outbreak (Jiang et al., 2021). Many students and teachers all across the world were impacted by this (Shahzad et al., 2021; UNESCO, 2021). Thus, schools and universities have quickly adapted the online learning (synchronous or asynchronous) for students and teachers. With this, higher educational institutions (HEIs) are more involved in learning how to manage and enhance the performance of the online coursework of students (Agyeiwaah et al., 2022). This educational system has been expanding in response to the continuous threat of the COVID-19 pandemic, but this unexpected and quick shift has raised concerns over the availability of appropriate technologies which imposes a big challenge for them. Equally important, is the quality of learning, students' academic achievement and satisfaction (Sahu, 2020).

This study is supported by the transactional distance theory (Moore, 1997), most likely associated with distance and online learning courses (Benson and Samarawickrema, 2009). To improve students' general satisfaction, this kind of theory acknowledges contact as a bridge over "a psychological and communications gap" through an online learning (Benson and Samarawickrema, 2009; Moore, 1997). Therefore, this study takes a step further and proposes that student involvement and academic self-efficacy may be the mechanisms behind online learners' satisfaction with their learning experiences (She et al., 2021) particularly college students in the online learning in the Philippines.

The Commission on Higher Education (CHED) in the Philippines mandated the HEIs to create mechanisms in directing and orienting students on the implementation of a new learning system. This includes determining the level of technology for program delivery based on student connectivity, developing multimedia or learning resource centers that offer technical assistance to instructors in the creation of IT-enabled and IT-mediated instructional materials, accessing and using open electronic resources (OERs) as a guide in various flexible learning methods and discipline content, and using learning management systems (LMS) (De Vera, 2020).

Currently, as the LMS is thriving; students are now engaging more in their own learning using their different learning styles and allow themselves to become more flexible whatever and wherever they want. This continuous development of skills in the online environment can be seen as a positive effect on their education. While educators / facilitators' obligation is to deliver assistance and instructional resources required to further enhance and reinforce the self-regulation of students in their learning satisfaction, since learners are required to be independent in the different online learning courses (Lim et al., 2020).

On the other hand, increasing student satisfaction can be a factor in promoting effective communication and flexibility through the online learning; thus, through synchronous and asynchronous online approaches, the school should implement different applications with the LMS to help them become more active and improve their quality of learning (Elshami et al., 2021).

A significant number of literature studies has been performed to look at many factors that affect learners' satisfaction with their online learning experiences to match their actual learning needs and build an effective learning environment (Hew et al., 2020; Jiang et al., 2021; Shen et al., 2013). According to Bangert (2006), four (4) variables, including interaction and communication between students and professors, time spent on task, actively engaged learning, and peer cooperation, were found to be associated with student satisfaction in online courses. These following studies support the factors mention such as: a study of Chaves (2022) revealed in her study that instructional strategies that include the principles of the cognitive, social, and teaching presences have a significant impact on students' perceived learning in the online setting, so in the student satisfaction. Likewise, Aguirre et al. (2022), found that due to their personal interactions with the school, students were less focused on the resources and amenities than they are on the actual services they receive, but this positively affects both the institution's operational processes and the degree of student satisfaction in terms of service delivery. Also, Glazier and Harris' (2021) study discovered that although synchronous personal interactions are often controlled in the online classes, assignments and course organizations have become essential in terms of instructors and the delivery of instruction in the online setting.

Other studies created models like the study of Parahoo et al. (2016), which reported that faculty members should showcase their empathy towards their students during online classes as it is expected for student satisfaction; therefore, it requires embracing a caring approach and positive attitude towards the learners and responding quickly to their concerns, as well as showing a genuine interest to help. Similarly, Baloran et al. (2021) studied the course satisfaction and student engagement in online learning amid COVID-19 pandemic as basis for creating a structural equation model, wherein students are highly satisfied that their learnings have met successfully in the online environment, especially with how their instructors create their good rapport and give constant feedback on the performance of students through online.

From the different studies mentioned above, it can be noted that online learning experience can be beneficial to the learners, it identifies the satisfaction of students whether they engage well in their education. Thus, this study analyzes the satisfaction of students in the online learning services and may carry significance in opening a new viewpoint for educational policymakers to efficiently plan a distance learning operation for the future of education.

Methodology

This study aims to determine the perceived online learning satisfaction among college students at St. Dominic College of Asia, Bacoor City, Cavite, Philippines, particularly in the online learning services and expected online learning activities.

The study used a descriptive survey approach wherein a sample of respondents must be chosen from the population and wherein the researcher attempts to describe the population by gathering and analyzing data from a smaller subset of the larger group (Mertler, 2016). The survey was conducted in all academic courses in December 2021, January 2022, May 2022, and June 2022. Students were invited to participate in this survey, and a total of six hundred and fifty-nine (659) respondents completed it through online. The demographic profile of the college students was presented in Table 1.

Table 1
Demographic profile of the college students (n=659)

Profile	Variables	Frequency	Percentage
Gender	Female	502	76.17%
	Male	141	21.40%
	Prefer not to say	*16*	*2.43%*
School	School of Health Science Professions (SHSP)	292	44.31%
	School of Arts, Sciences, and Education (SASE)	193	29.29%
	School of Business and Computer Studies (SBCS)	116	17.60%
	School of International Hospitality and Tourism Management (SIHTM)	58	8.80%
Year Level	1st Year	368	55.84%
	2nd Year	131	19.88%
	3rd Year	108	16.39%
	4th Year	52	7.89%
Student Type	First time student	245	37.18%
	Continuing Transfer	90	13.66%
	Readmit	62	9.41%
	Prefer not to answer	*262*	*39.76%*
Mode of Study	Full-time	536	81.33%
	Part-time	34	5.16%
	Working student	89	13.51%

In terms of gender, most of the respondents are females (76.17%) than males (21.40%). Sixteen (16) or 2.43% of the respondents did not specify what gender they belong to. Almost half of the participants (44.31%) belonged to the School of Health Science Professions. This is followed by the respondents coming from the School of Arts, Sciences, and Education (29.29%), School of Business and Computer Studies (17.60%), and School of International Hospitality and Tourism Management (8.80%).

About half of the respondents are first-year students (55.84%), followed by students who were enrolled in second year (19.88%), third year (16.39%), and fourth year (7.89%). It was also noted that some students were enrolled for the first time in their College (37.18%).

Others were continuing transferees (13.66%) and readmitted students (9.41%). Majority of the students preferred not to answer what student type they currently are (39.76%). In terms of mode of study, more than three-fourths of the respondents were full-time students (81.13%), while others were part-time (5.16%) and working students (13.51%).

A survey questionnaire was created by the researchers through Google Forms to determine the satisfaction of students in the online learning services and the expected online learning activities. The first part of the questionnaire contained the demographic profile of the respondents: gender, course and school, college level, student type, and mode of study. On the second part, a five (5)-point Likert type scale (1 – Very dissatisfied… 5 – Very satisfied) consisting of twenty-one (21) questions was used to determine their satisfaction in the online learning services. A five (5)-point Likert type scale (1 – Highly not expected… 5 – Highly expected) containing fourteen (14) questions was also utilized to explore the expectations of students in terms of online learning activities.

These scales are based on the different online learning satisfaction scales in varied literature (Balsicas et al., 2021; Pham et al., 2019; Zhang & Lin, 2020). It also contained questions pertaining to receiving supplemental academic online learning support and improving online learning services in the school.

The data collection was done online by distributing the survey questionnaire to Blackboard Learn, Messenger, and e-mails. Respondents conveniently answered the form according to their own pace or time. Data were later recorded and gathered using a Microsoft Excel spreadsheet and were analyzed using the frequency and percentage distribution, weighted mean, and one-way analysis of variance. A one-way ANOVA was used to determine if there is a significant difference on the satisfaction of students in online learning services, as well as in the expected online learning activities.

Table 2
Student satisfaction on online learning services

Item	Online Learning Services	Weighted Mean	Interpretation
1	Assistance with using the learning management system (Blackboard Learn)	4.25	Moderately satisfied
2	Help desk support for educators using technology	4.04	Moderately satisfied
3	Access to library resources such as books and journals	3.59	Moderately satisfied
4	Access to course materials	4.04	Moderately satisfied
5	Access to online tutoring	3.73	Moderately satisfied
6	Online faculty consultation	3.85	Moderately satisfied
7	Access to additional online academic support	3.86	Moderately satisfied
8	Information about course prerequisites	4.11	Moderately satisfied
9	Information regarding the course's technical requirements	4.01	Moderately satisfied
10	Interaction with fellow students	3.97	Moderately satisfied
11	Interaction with instructor/s	3.96	Moderately satisfied
12	Facilitated teaching and learning to my course	4.07	Moderately satisfied
13	Assessment of student performance by your teachers	4.05	Moderately satisfied
14	Assessment of tests in major exams by your teachers	4.07	Moderately satisfied
15	Library services	3.48	Not sure
16	Registrar's services	3.99	Moderately satisfied
17	Student affairs services	3.88	Moderately satisfied
18	Finance services	3.95	Moderately satisfied
19	Other services	3.90	Moderately satisfied
20	Overall, how satisfied are you with your online class experience at SDCA?	4.07	Moderately satisfied
21	Overall, how satisfied are you with the policies that SDCA sets?	4.12	Moderately satisfied

Legend: 1.00-1.49 – Very dissatisfied; 1.50-2.49 – Moderately dissatisfied; 2.50-3.49 – Not sure; 3.50-4.49 – Moderately satisfied; 4.50-5.00 – Very satisfied

Table 2 determines the student satisfaction on online learning services. The table shows that all online learning services except in the library services were "moderately satisfied" by the students. It is determined that students were mostly "moderately satisfied" about the assistance with using the learning management system, particularly in Blackboard Learn (Mean = 4.25). An Arabian study showed that Blackboard is effective and creates a huge impact to the students when blended learning was used (Baig et al., 2020). Another study shows that using Blackboard is successful in a team-based learning among students in different programs (Al-Neklawy & Ismail, 2022).

However, it can be noted that students were unsure if they are satisfied with the library services (Mean = 3.48). According to Aguilera and Wiersma (2022), libraries are frequently seen as neutral spaces on campuses that are accessible to everyone, including the public in general; it also implies in their study that the use of the resources and services in the libraries have significantly changed during the pandemic depending on the user type.

Moreover, most of the students were moderately satisfied (Mean = 4.07) with the online class experience at St. Dominic College of Asia. They were also moderately satisfied (Mean = 4.12) with the school's policies. Based on the study of Almusharraf and Kharro (2020) about the students' satisfaction with online learning experiences during the COVID-19 pandemic, the success of online learning relies on the implementation of cutting-edge online tools that offer suggestions and solutions for interactive instruction in teaching and learning, such as short, personalized video lectures, digital readings, interactive projects, discussion forums, and gamification review tools. This online class experience helps the students to adapt numerous instructional designs given by their teachers that can positively impact their satisfaction levels.

Table 3
Student satisfaction on online learning activities

Item	Online Learning Activities	Weighted Mean	Interpretation
1	I can readily listen to an online lecture.	3.98	Expected
2	Course activities are self-paced.	4.04	Expected
3	I can participate in all class discussions.	3.92	Expected
4	There is immediate feedback on assessed activities or major exams.	3.62	Expected
5	I can collaborate and discuss with my classmates.	3.92	Expected
6	Online lessons will be more flexible than in the traditional classes.	3.63	Expected
7	I can read the articles according to my own pace/time.	4.12	Expected
8	I can attend a meeting with teachers and classmates for brief discussion.	4.13	Expected
9	I can attend a scheduled meeting with teachers for question or content clarification.	4.05	Expected
10	I can readily watch a pre-recorded or live-streamed lecture.	4.12	Expected
11	I can listen lecture of the teacher during synchronous meeting.	4.18	Expected
12	I can listen to relevant webinars.	4.06	Expected
13	I can answer quizzes online.	4.38	Expected
14	I can answer major examination online.	4.41	Expected

Legend: 1.00-1.49 – Highly not expected; 1.50-2.49 – Not expected; 2.50-3.49 – Neutral; 3.50-4.49 – Expected; 4.50-5.00 – Highly expected

The satisfaction of students in the online learning activities was stated in Table 3. Based on the given table, all online learning activities were "expected" by the students. It can be indicated that students can answer major examinations online (Mean = 4.41), which got the highest ratings of all expectations in the online learning activities. A recent Thai study discovered that answering examinations online has become more practical since this approach was the best solution to prevent the spread during the COVID-19 pandemic (Eurboonyanun et al., 2021).

According to Cicha et al. (2021), the experience of students during distance or online learning helps them to learn more remotely than in face-to-face classrooms, so this means that they do not worry when having technical difficulties in the use of different online tools. In a study by Panoy et al. (2022), it is essential to conduct a thorough and in-depth analysis of students' opinions of their technological capability and expectations for online courses given the continuous growth of online education; therefore, for students to succeed in online learning, it is important to evaluate their needs and fulfill their expectations.

Table 4
Analysis of variance (ANOVA) on the means of satisfaction of students' online learning services

Source of Variation	Sum of Squares	df	Mean Squares	F	P-value (Sig.)	F crit
Between Groups	418.794	20	20.940	25.001	0.000	1.571
Within Groups	11573.347	13818	0.838			
Total	**11992.141**	**13838**				

The analysis of variance (ANOVA) on the means of satisfaction of students in terms of online learning services is highlighted on Table 4. The table finds that the p-value 0.000 is less than .05, which indicates a statistical significance among college students in all schools in terms of their satisfaction on the online learning services. A research conducted by Akcaoglu and Lee (2017), there is a statistically significant difference between small and big discussion groups; it states that students are strongly committed and are closer to their group co-members when they placed into smaller discussion groups. Thoo et al. (2021) also reported in their study that online learning is significant to higher institutions in terms of delivery method and content; whereas with the help of e-learning tools, students may adapt their experiences to meet their unique learning goals by having control over the material, learning pace, order of lessons, media, and time.

Table 5
Analysis of variance (ANOVA) on the means of satisfaction of students' expected online learning activities

Source of Variation	Sum of Squares	df	Mean Squares	F	P-value (Sig.)	F crit
Between Groups	418.794	20	20.940	25.001	0.000	1.571
Within Groups	11573.347	13818	0.838			
Total	**11992.141**	**13838**				

Table 5 shows the analysis of variance (ANOVA) on the means of satisfaction of students in terms of online learning activities. The results show that the p-value 0.000 is less than .05, which determines that there is a statistical significance among college students in all schools in terms of their satisfaction on the online learning activities. This result agrees with the study of Al-Nasa'h et al. (2021) wherein the satisfaction of online learning has greatly enhanced self-efficacy while diminishing the general anxiety and fear of COVID-19 pandemic. Fearnley and Malay (2021) also noted in another study that significant differences were observed in three dimensions: computer / Internet self-efficacy, motivation for learning, and online communication self-efficacy.

Table 6
Supplemental online academic learning support (n=659)

Supplemental online academic learning support	Frequency	Percentage
Family	239	36.27%
Self	203	30.80%
Friends	121	18.36%
Faculty members / Professors	94	14.26%
Administrative staff	2	0.30%

The supplemental online academic learning support is determined in Table 6. Based on the table, it indicates that family is the most supplemental online academic learning support that has been received by students. It garnered with a total of two hundred and thirty-nine (239) or 36.27% of the students. According to Rahiem (2021), students maintain a positive attitude towards learning by being inspired through their parents. Studying at home allowed themselves to become more flexible like spending their time with their families in addition to self-care and their daily exercise. However, in contrast to Fitzgerald and Konrad's (2021) research, students felt much support from their faculty members or instructors in overcoming their anxieties to fulfill their successful online learning experience. Faculty members should provide their students a stable and structured learning environment in addition to debriefing, which allow them to bond with one another and to clearly focus on their coursework.

Table 7
Responses of students if they would take online course again (n=659)

Responses	Frequency	Percentage
Definitely	210	31.87%
Only if required	228	34.60%
Maybe	186	28.22%
No	35	5.31%

Table 7 identifies the responses of students if they would take online course again. The table shows that majority of the students would take online courses again only if required in their respective curricula (34.60%). This result is in line with Keis et al.'s research (2017) whether students prefer online or face-to-face instruction in their curriculum. Keis et al. (2017) argued that although students could participate in online courses, they still preferred face-to-face course due to a commitment that is required for them in preparation for the actual learning content and willingness to finish that said course and they still find it as more effective than online course. Though students can still receive online learning in the future, some of them assumed that subjects requiring medical and/or laboratory works, or actual real-life experiences cannot be done properly through online alone. Educational institutions must be responsible in managing its program accordingly and in meeting the expectations of the learners (Suleri, 2020).

Conclusion and Recommendations

Online learning gives a chance for students to adapt to this new learning environment. It has become more flexible and accessible to the learners that would help them establish their digital skills and create a new interaction towards their co-learners and teachers.

The institution has implemented online learning since the COVID-19 pandemic with the use of different learning tools applicable for both students and teachers that can empower continuous improvement in the teaching and learning process.

The results found that majority of the students were "moderately satisfied" about the assistance with using the learning management system (Blackboard Learn), whereas most of them were "expected" that they can answer major examinations through online. This study also shows that both online learning services and expected online learning activities are statistically significant, respectively. It can also be determined that family has been the most received supplemental online academic learning support, whereas students are eager to take online courses again only if required by their instructors or professors.

Recommendations are made to ensure the continuous improvement of satisfaction of students in the online learning. For students who want to continue their education, the institution should implement a HyFlex (hybrid-flexible) learning which can integrate both face-to-face and online learnings through a set of courses. With this kind of learning, students can choose what learning modality is best for them. They can attend face-to-face synchronous class sessions in-person or via video conference such as Google Meet and Zoom, or even participate asynchronously through the use of Blackboard Learn. Students, regardless of their own status and the modality they participate in, will be successfully provided with the technological skills necessary for their learning to access all materials and courses in a classroom setup.

The school should improve its digital library services to preserve the electronic resources by providing e-book and journal collections that can be accessible not only to students, but also to the teachers and staff in addition with the web-based Online Public Access Catalog (OPAC). Course materials should be disseminated to students before the session starts. In a same way, faculty should properly discuss the uploaded resources, while maintaining the class to be more interactive. Future studies should also be conducted for faculty members in the higher education. Thus, the research study could help teachers to promote their online learning in the fastest and simplest way for their students aside from trainings in using the information and communication technologies (ICTs) and e-resources for their self-improvement.

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