

Satisfaction and Comfort towards E-Learning among Nursing Students

Raji Kaliyaperumal [1]
Vinoth Raman [2]
Rajakumari [3]

Abstract

Due to the COVID-19 pandemic, an online system was required, one of which was e-learning. The use of e-learning aroused a lot of interest from both students and lecturers. So that students do not struggle with distance learning, lecturers should be able to prepare the best materials, media, content, interaction, and flexibility in the use of e-learning. While students should prepare themselves as much as possible in terms of technology, ability, interaction with colleagues and lecturers, as well as motivation, they should also prepare themselves as much as possible in terms of technology, ability, interaction with colleagues and lecturers when conducting distance learning using e-learning. The goal of this study was to see how satisfied and comfortable nursing students in a Coimbatore college were with e-learning. In this investigation, a descriptive study design was used. Convenience sampling was used to pick 382 students enrolled in the College's 4-year baccalaureate nursing program and 2-year post-baccalaureate nursing program. This research was place during the 2020 academic year. A questionnaire, such as the five-point Likert scale, was used to collect the data. The results of the survey were analyzed statistically using SPSS. The students were highly satisfied with various aspects of the lecture, such as the teacher's motivation, the question session at the end of the lecture, and the virtual film about the procedure, according to the results. The students were at ease attending e-learning classes since they are accustomed with using a computer device, according to the findings. Although computer education allows pupils to learn independently, traditional teaching methods offer greater benefits than e-learning.

Keywords: Satisfaction, comfort, e-learning, Nursing

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I. INTRODUCTION

New options for training and education via online learning or e-learning have evolved as a result of the Internet's attraction and recent developments in information technology. Electronic style of teaching and learning has evolved as a vital alternative/supplement to traditional "chalk and talk" mode of teaching, with a variety of electronic devices, applications, and services available. In many institutions throughout the world, e-learning systems, also known as Learning Management Systems (LMSs), have become a critical component of the teaching-learning process. (Gurmak Singh, John O'Donoghue, Harvey Worton, 2005)

Online learning necessitates a certain amount of familiarity with computer and web technologies (Lee & Witta, 2001). Students must be able to use a variety of current hardware and software programs in order to fully participate in online education activities, access teaching materials, and interact with an instructor and classmates. Lacking the necessary technical abilities might cause computer anxiety and potentially act as a roadblock to learning (Cheurprakobkit, Hale, & Olson, 2002). Those students will need to put in extra effort to gain the requisite technology skills while also mastering new course material. Online learning necessitates access to and knowledge of computer devices.

There has been significant debate about the relationship between student satisfaction with online courses and their familiarity with utilizing the Internet. It's possible that comfort with the Internet has little to do with happiness with online learning. Students who felt more at ease using the Internet were more likely to be satisfied with their e-learning experiences than students who did not feel at ease using the Internet, according to Stokes (2003). It appears that ease with online learning is linked to satisfaction in some circumstances. If students lack technical skills, it will take them a long time to complete the exercise or attend the class. When the internet connection is poor, it can be difficult for students to participate in the lecture.

According to Palmer and Holt (2009), a student's level of comfort with technology is crucial to their happiness with online courses. Secondary considerations included the student's self-assessment of how well they were performing in the online environment and the clarity of expectations. Positive opinions of technology were also identified as one of two critical qualities of student happiness by Drennan, Kennedy, and Pisarski (2005). The second category included self-directed and creative learning styles. Richardson and Swan (2003) investigated the association between social

[1] Assistant Professor, College of Applied Medical Science, King Khalid University, Muhayil, Kingdom of Saudi Arabia

[2] Assistant Professor, Quality Measurement and Evaluation Department, Deanship of Quality and Academic Accreditation, Imam Abdul rahman Bin Faisal University, P.O. Box 1982, Dammam 31441, Kingdom of Saudi Arabia

[3] Vice Principal, RVS College of Nursing, Kumaran Kotaam Campus, Kannapalayam, Coimbatore-641402 Email: drrajiphd@gmail.com

presence in online learning and instructor satisfaction. They discovered a link between students' perceptions of social presence and their learning and satisfaction levels.

While computer skills and attitudes are valuable in and of themselves, it's also useful to understand how these learner qualities affect learning in a computer-based course (De Wit K, Heerwegh, 2005). Students that are uncomfortable with computers, for example, may find it challenging to learn using computers. Those who have had prior experience with online learning, on the other hand, may find it easier to learn using computers again. Also, because self-efficacy promotes learning, those who have had positive earlier experiences may have a better chance of succeeding in e-learning. Such findings would have significant consequences for educators in terms of how to effectively support students in an online course: if these student attributes are linked to learning achievement, it would suggest that students who are less comfortable or experienced require extra help.

If, on the other hand, comfort and prior experiences do not have a systematic impact on learning, it encourages the adoption of online learning by a varied set of students. While studies examining the relationship between pre-course perceptions and learning outcomes are plentiful (Cook DA, Thompson WG, Thomas KG, 2009), studies examining the relationship between pre-course perceptions are few and older. A small positive connection between attitudes regarding computer-assisted instruction and course achievement was discovered in a study in health professions education. Two additional investigations, on the other hand, revealed little to no link.

II. MATERIALS AND METHODS

A quantitative, descriptive –survey method was adopted for this study. The study was conducted in the selected nursing college at Coimbatore. The college is providing 4 years Baccalaureate degree nursing program. Students from first year to the final year both undergraduate and post graduate students were selected for the study. The Google form sent to the participants through social media. Study purpose was explained to the students, whoever is willing to participate in the study were filled the form and sent to the researcher. A total of 382 students consent to participate in the between the age group of 21-50 years.

The sample was chosen based on the most practical sampling technique. Demographic data (age, year of study, UG/PG, previous experience in taking online classes, category of the school, and location of college) were collected using Section-1. Section 2 contains ten statements that evaluate the level of satisfaction with online classes. It is worth 5 points. On a scale of one to ten (Completely dissatisfaction-1, Mostly dissatisfaction-2, somewhat satisfied-3, Mostly satisfied -4, Extremely satisfied -5). There are ten statements that can be used to determine how comfortable you are with utilizing an electronic device during online classes. The Likert scale is a four-point scale (Mostly uncomfortable-1, Somewhat uncomfortable-2, Somewhat comfortable-3, Mostly Comfortable-4). The instrument was confirmed to be extremely dependable using Cronbach Alpha, with a result of 0.84.

Method of data collection: The college's administrative authority granted authorization to the researcher. The researcher proceeded with the data collection after receiving approval. The goal of the study and the confidentiality of the personal data were explained by the researcher. The data will be used solely for the purposes of the study, with the benefits of the study being described to the students and their informed consent being obtained. The researcher stated that their participation was completely voluntary, that they would not be paid for their time, and that any information gathered as a consequence of the study would be kept strictly confidential. The researcher went into great depth on the questionnaire, including how to score it and their own personal information. The researchers asked them to score the scale based on their e-learning experience and to keep in mind that this is their own opinion, which they should not share with their friends. In the year 2020, each student took 30-45 minutes to complete the questions, and the data gathering period was two months. The data was analysed, coded, and tabulated after it was evaluated and readied for computer processing. SPSS version 20 was used for data entry and analysis. Frequency distribution, mean, standard deviation, and correlation were used to present the data.

III. RESULT AND DISCUSSION

Table 1: Demographic Profile

Variables		n	%
Age group	21 -30 years	247	58.81%
	31 -40 years	166	39.52%
	41 -50 years	7	1.67%
In Which year you are studying	1st year	72	17.14%
	2nd year	97	23.10%
	3rd year	142	33.81%
	4th year	109	25.95%
Academic Discipline	UG	398	94.76%
	PG	22	5.24%
Whether you have Previous experience in attending online class	Yes	157	37.56%
	No	261	62.44%
	Private	346	82.78%
Category of institution	Aided	30	7.18%
	Government	42	10.05%

Table 1 revealed that 58% of the students were between the ages of 21 and 30, that the majority of the students were in their final year of undergraduate studies, that the majority of the students had no prior experience with online courses, and that the majority of the students were enrolled in a private institution.

Table 2: Level of Satisfaction in Attending Online Classes

	Completely dissatisfied n (%)	Mostly dissatisfied n (%)	Somewhat satisfied n (%)	Mostly satisfied n (%)	Extremely satisfied n (%)
The teaching method used in the E-learning were helpful and effective	14(3.37%)	25(6.01%)	120(28.85%)	160(38.46%)	97(23.32%)
In the E-learning variety of learning material and activity used to promote my learning	16(3.89%)	18(4.38%)	114(27.74%)	186(45.26%)	77(18.73%)

I enjoyed the teaching provided through online	29(6.90%)	34(8.1%)	124(29.52%)	164(39.05%)	69(16.43%)
Teacher motivated to understand the course material	14(3.33%)	13(3.1%)	86(20.48%)	186(44.29%)	121(28.81%)
Assignment given through online made me learn in-depth of subject matter	21(5.00%)	21(5%)	116(27.62%)	170(40.48%)	92(21.9%)
Question asked in the units were not too difficult	16(3.81%)	26(6.19%)	129(30.71%)	196(46.67%)	53(12.62%)
Completing the units did not take more time	13(3.10%)	27(6.43%)	126(30%)	168(40%)	86(20.48%)
Question and Answer session at the end of the class was helpful	22(5.24%)	18(4.29%)	85(20.24%)	173(41.19%)	122(29.05%)
Discussion board used in e-learning was helpful	20(4.76%)	28(6.67%)	115(27.38%)	164(39.05%)	93(22.14%)
Virtual simulation, video used in the class was helpful for understand the procedure	22(5.25%)	14(3.34%)	108(25.78%)	154(36.75%)	121(28.88%)

Table 2 shows that the majority of students were extremely satisfied with the teacher's motivation to understand the class, assignments given to understand the subject in depth, completing the unit on time, discussion board used for classmate discussion, question and answer asked at the end of the session, virtual simulation, and video to understand the procedure. The majority of pupils were pleased with the teaching technique and the variety of materials used in the classroom. This demonstrates that students were content with their online lessons.

Table 3:Percentage of Satisfaction in Attending Online Classes

	Maximum score	Mean score	SD	% of mean score
The teaching method used in the E-learning were helpful and effective	5	3.72	1.00	74.40%
In the E-learning variety of learning material and activity used to promote my learning	5	3.71	.95	74.20%
I enjoyed the teaching provided through online	5	3.50	1.08	70.00%
Teacher motivated to understand the course material	5	3.92	.96	78.40%
Assignment given through online made me learn in-depth of subject matter	5	3.69	1.03	73.80%
Question asked in the units were not too difficult	5	3.58	.92	71.60%
Completing the units did not take more time	5	3.68	.97	73.60%
Question and Answer session at the end of the class was helpful	5	3.85	1.06	77.00%
Discussion board used in e-learning was helpful	5	3.67	1.04	73.40%
Virtual simulation, video used in the class was helpful for understand the procedure	5	3.81	1.06	76.20%
Overall	50	37.02	7.98	74.04%

Table-3 shows the mean satisfaction score of students who attended online classes; this confirms that the teacher was motivated, that questions and answers were asked at the end of the class, that the exam was simple, and that the virtual simulation and video used during the education helped the students understand the class. As a result of the findings, students were satisfied with their online classes.

Table 4:Level of Comfort in Attending Online Classes

	Mostly uncomfortable n (%)	Somewhat uncomfortable n (%)	Somewhat comfortable n (%)	Mostly comfortable n (%)
Using Email	27(6.43%)	36(8.57%)	127(30.24%)	230(54.76%)
Typing in the Key Board	33(7.86%)	57(13.57%)	146(34.76%)	184(43.81%)
Accessing the web	32(7.62%)	37(8.81%)	187(44.52%)	164(39.05%)
Sending & Receiving document electronically	32(7.64%)	47(11.22%)	158(37.71%)	182(43.44%)

Preparing power point for presentation	24(5.71%)	40(9.52%)	158(37.62%)	198(47.14%)
Downloading the document	30(7.14%)	42(10%)	145(34.52%)	203(48.33%)
Submitting the assignment	33(7.86%)	45(10.71%)	136(32.38%)	206(49.05%)
Attending the examination	42(10%)	41(9.76%)	157(37.38%)	180(42.86%)
Listening to audio on the computer	37(8.81%)	53(12.62%)	174(41.43%)	156(37.14%)
Viewing video on the computer	36(8.57%)	39(9.29%)	149(35.48%)	196(46.67%)

Table-4 shows that the majority of students are comfortable attending online classes, with the majority of them preferring to download documents, submit assignments, and communicate via email. The majority of the kids were confident in creating power-point presentations, accessing the internet for research, and sending and receiving documents to their teacher and friends. This demonstrates that students were at ease utilizing smart phones for online classes.

Table 5:Percentage of Comfort in Attending Online Classes

	Maximum score	Mean score	SD	% of mean score
Using Email	4	3.33	.88	83.25%
Typing in the Key Board	4	3.15	.93	78.75%
Accessing the web	4	3.15	.87	78.75%
Sending & Receiving document electronically	4	3.17	.91	79.25%
Preparing power point for presentation	4	3.26	.85	81.50%
Downloading the document	4	3.24	.90	81.00%
Submitting the assignment	4	3.23	.93	80.75%
Attending the examination	4	3.13	.95	78.25%
Listening to audio on the computer	4	3.07	.92	76.75%
Viewing video on the computer	4	3.20	.93	80.00%
Overall	40.00	31.92		

Table 5 reveals that the majority of students were comfortable using a computer to watch a movie, send an email, prepare a power point presentation, download a document, and submit an assignment. This demonstrates that pupils were at ease utilizing computers to learn.

Table 6: Association between satisfaction score and demographic variables

Demographic variables		Satisfaction			ANOVA F-test/t-test
		n	Mean	SD	
Age group	21 -30 years	247	36.87	7.62	F=0.11 p=0.89(NS)
	31 -40 years	166	37.25	8.56	
	41 -50 years	7	36.86	7.38	
In Which year you are studying	1st year	72	36.76	6.71	F=0.70 p=0.55(NS)
	2nd year	97	37.56	7.59	
	3rd year	142	36.34	8.51	
	4th year	109	37.59	8.41	
Academic Discipline	UG	398	36.90	8.14	t=2.42 p=0.02*(S)
	PG	22	39.09	3.78	
Whether you have Previous experience in attending online class	Yes	159	39.57	6.74	t=5.27 p=0.01**(S)
	No	261	35.46	8.29	
	Private	348	37.07	8.15	
Category of institution	Aided	30	37.33	6.44	F=0.17 p=0.84(NS)
	Government	42	36.36	7.72	

Table-6 states the statistical significance was determined using a student independent t-test, and the results revealed that PG students and students who had previously attended an online class had higher satisfaction scores than others.

Table-7, Statistical significance was determined using a student independent t-test, and the results revealed that PG students and students who have previously attended an online class have a higher level of comfort than others.

Table 7: Association between Comfort score and demographic variables

Demographic variables	n	Comfort		ANOVA F-test/t-test
		Mean	SD	
Age group	21-30 years	247	31.71	F=0.81 p=0.44(NS)
	31-40 years	166	32.34	
	41-50 years	7	29.57	
In Which year you are studying	1st year	72	31.90	F=0.29 p=0.83(S)
	2nd year	97	31.64	
	3rd year	142	31.73	
	4th year	109	32.44	
Academic Discipline	UG	398	30.31	t=2.25 p=0.03*(S)
	PG	22	32.14	
Whether you have Previous experience in attending online class	Yes	159	33.74	t=4.26 p=0.001***(S)
	No	261	30.81	
Category of institution	Private	348	31.85	F=1.90 p=0.15(NS)
	Aided	30	34.10	
	Government	42	30.95	

*p<0.05 significant ***p<0.05 very high significant

IV. CONCLUSIONS

The present study was done to know about the students satisfaction and comfort in using computer for the e-learning. The results shows that students were satisfy in using computer for mailing, preparing the power point for the presentation, teachers motivation for learning through the computer, downloading the document, sending the document through mail, submitting the assignment by browsing the website, virtual video for learning the procedure. Satisfaction in e-learning is added point for the comfort in using the computer device. The students who is doing PG course and having the previous experience in sing the computer device has more comfort than the other students. This study indicates the students were satisfied in e-learning. The present study was supported by the study conducted by (Wiam Elshami, et al., 2021). The current study found that students' overall satisfaction was linked to their technology satisfaction, with the most common source of discontent being the instructor's accessibility and availability. One-third of students in the current research were also unsatisfied with the time it took to download information. Even with the best-designed online course, many authors have noted that technical issues can contribute to inefficient learning. The same authors also stated that technology-related aspects, such as the quality of technical support available and the user-friendliness of their courses' technological infrastructure, may influence student and faculty satisfaction with online education.

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