

Learning and satisfaction levels with online teaching methods among undergraduate dental students - A survey

C. Pratheebha, Mahalakshmi Jayaraman

Department of Conservative and Endodontics, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India

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ABSTRACT

Taking an online course requires more motivation and self-discipline than taking a classroom-based course. One or more teachers and peers may keep a student responsible for their course work in a classroom. Online classes, on the other hand, enable us to set our own targets, chart our success, and follow deadlines. An awareness-based, self-administered questionnaire was created. The target audience for the study received a link to the questionnaire through Google Docs. The participants were given a thorough explanation of the survey's objectives. Pie charts with a frequency table were created after the survey findings were known. A Chi-square test was used to examine for associations in the statistics, and a $P = 0.05$ was considered statistically significant. The overall satisfaction level with online classes among students was, 57% were not satisfied with online classes, 31% were satisfied, and 12% were extremely satisfied. Most commonly students were not satisfied with both genders. However, majority of the females were not satisfied. This difference was statistically significant (Pearson's Chi-square value: 1.999, $df = 2$, $P = 0.368 (>0.05)$ – significant). Eighty percent of the students have faced difficulties while attending online classes. However, 92% of the students have agreed that the technology helped them to attend their online classes.

Key words: Eco-friendly, frequency, innovative technique, online learning, technology

INTRODUCTION

Online sources to teach the required courses are increasing day by day. Online education continues to spread at a much faster rate when compared to traditional campus-based programs.^[1] Online university courses offer a variety of

advantages to both students and teachers, including the ability to take classes from far-off locations and the high degree of flexibility that comes with studying on one's own schedule. This allows universities to serve more students without physically requiring their presence.^[2] There are challenges which have to be faced by the universities as well as students due to online education. Particularly, compared to face-to-face education, online learning frequently leads to much higher student turnover.^[3]

Modern students find the traditional classroom to be rigid, constrictive, and unworkable. Colleges may now deliver excellent classroom instruction through the web thanks to

Address for correspondence:

Dr. Mahalakshmi Jayaraman,
Department of Conservative and Endodontics, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai - 600 077, Tamil Nadu, India.
E-mail: mahalakshmi.j.sdc@saveetha.com

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significant technological developments in this day and age.^[4] Since the introduction of online learning, students may now more readily and flexibly evaluate excellent education.^[5] Online teaching is growing nowadays so instructors are basically interested to know what factors influence students' satisfaction levels while attending online courses.^[6] Online and classroom education share many different aspects and qualities. Students must also show up for training, read the curriculum, turn in homework, and work on community tasks. In addition, teachers must develop curriculum, enhance lesson plans, reply to student inquiries, encourage learning, and grade assignments. Although there are many parallels between the two teaching modes, there are also numerous distinctions. While classroom instruction always calls for passive learning of the curriculum, online instruction calls for active learning.^[5] Computer-mediated communication mediated a way for online learning in distance education.^[7]

Previous studies done by Dziuban *et al.* in his study concluded that^[8] students like active learning settings over passive ones because they expect the same in their classrooms because they live in an immersive environment. In the study performed by Diteeyont, Keengwe, and Lawson-Body,^[9] he quoted that students' understanding the happiness construct for students will depend on how expectations affect how the teacher designs efficient technological tools for online courses. Our study focuses on the satisfaction level of students who are attending online classes. Our staff has a wealth of knowledge and research expertise, which has resulted in publications of the highest caliber.^[10-29] The aim of the study was to assess the satisfaction level with online teaching methods among undergraduate dental students.

MATERIALS AND METHODS

Ethical no

IHEC/SDC/ENDO/21/145.

Study design

A survey was conducted among undergraduate dental students to know the satisfaction level with online teaching. One hundred undergraduate dentistry students participated in the present pilot research to gauge their degree of satisfaction with online instruction. The participants completed the survey willingly and were not compensated in any way. The participants' informed consent and legal acceptance were secured. The participants' informed consent and legal acceptance were secured. The survey took place in February 2021.

Survey instrument

After a thorough study of the existing literature, a questionnaire serving as the survey instrument was created. The questionnaire was evaluated, and changes

were made to make the questions and answers more clear and unambiguous. The questionnaire included 17 questions on learning and satisfaction levels with online teaching methods. Using Google Forms, an online survey tool, the participants were given access to the questionnaire.

Data analysis

Only completed questionnaires were used for evaluation, and incomplete ones were thrown away. Both responses were tallied, and the validity of the data was examined. The responses were all collated, and the veracity of the data was verified. For each question, a pie chart and a frequency table were created and analyzed. A Chi-square test was used to analyze the data using SPSS software, and a $P = 0.05$ was deemed to be statistically significant.

RESULTS

The current survey involved 100 undergraduate dental students to assess the satisfaction level with online teaching. The results were statistically analyzed and studied. When participants were asked if they were able to understand the dentistry concept with online teaching, 93% of the participants said yes and 7% of the participants said no [Figure 1]. When technology really helped in online education was asked, 92% of the participants said yes and 8% of the participants said no [Figure 2]. Eighty percent of the students have faced difficulty in clearing the doubts and 20% of the students did not face [Figure 3]. Students' opinion on motivation to succeed less in online learning due to lack of peer pressure, 78% said yes and 22% said no [Figure 4]. Students' opinion on whether online classes are more flexible, 46% of the students said yes and 54% of the students said no [Figure 5]. Eighty-eight percent of the students said that dentistry demanding more practical sessions was difficult with online learning and 12% of the students said no [Figure 6]. The overall satisfaction level

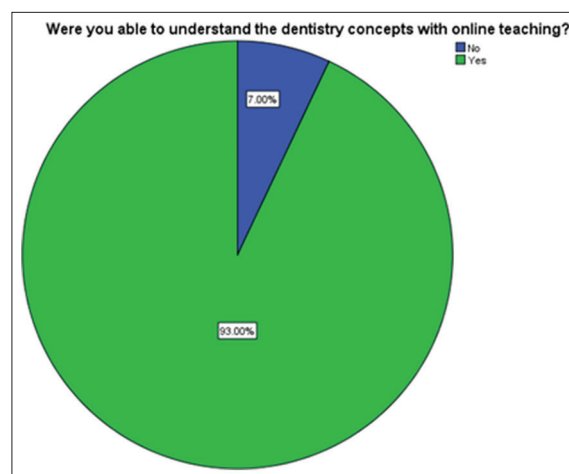


Figure 1: The distribution of students who have understood dentistry concepts with online learning, 93% said yes and it is represented in green and 7% of the students said no and it is represented in blue

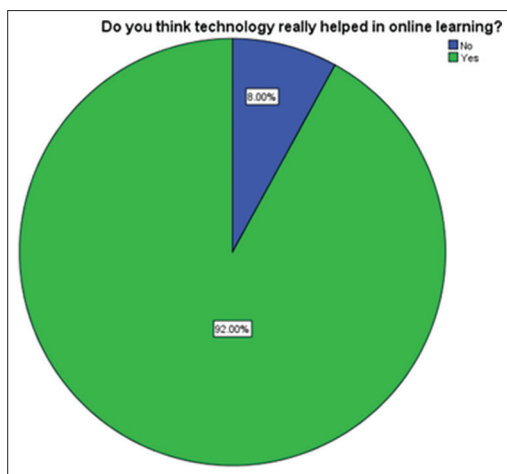


Figure 2: The distribution of students who think that technology helped in online learning, 92% of the students said yes and it is represented in green and 8% of the students said no and it is represented in blue

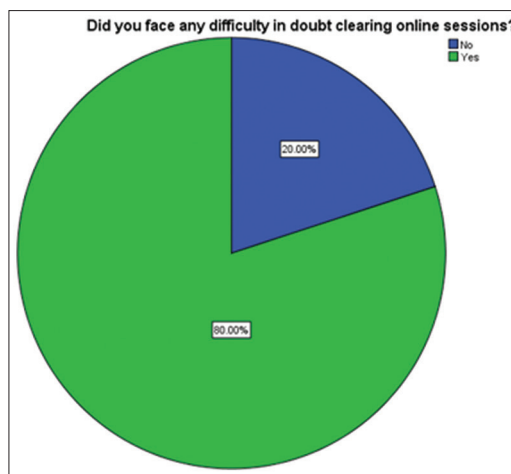


Figure 3: The distribution of 80% of the students who have faced difficulty in clearing the doubts and it is represented in green and 20% of the students did not face and it is represented in blue

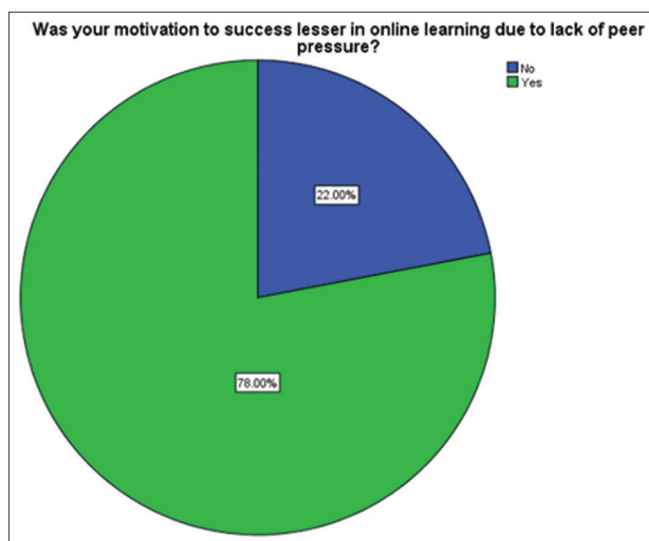


Figure 4: The distribution of students' opinions on motivation to succeed less in online learning due to lack of peer pressure, 78% said yes and it is represented in green and 22% said no and it is represented in blue

with online learning was 12% of the students were extremely satisfied, 31% of the participants were satisfied, and 57% of the students were not satisfied [Figure 7]. Eighty-seven percent of the participants think that online teaching is not as rigorous as classroom teaching. When students were asked about whether their assessment of their academic progress was accurate in an online course, 55% said yes and 45% said no.

DISCUSSION

The previous studies conducted by Bolliger and Wasilik^[30] to validate the elements influencing online faculty satisfaction while teaching online courses to students, a

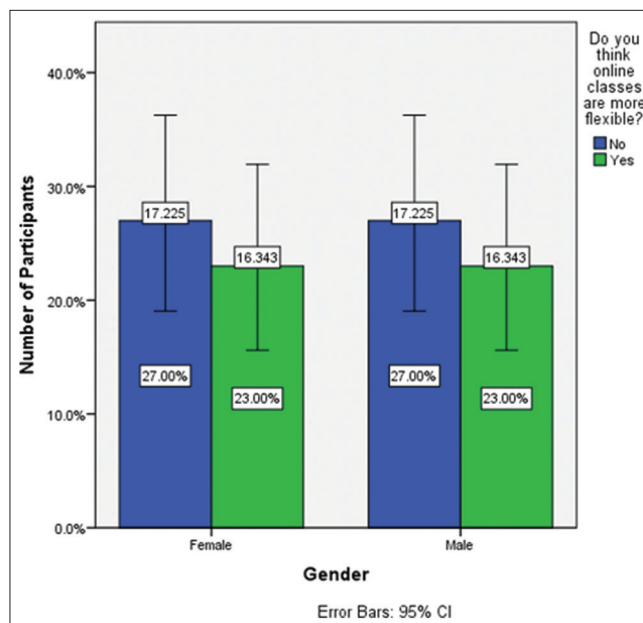


Figure 5: The link between gender and students' perceptions of how flexible online classes are is shown in a bar graph. The gender is shown on the X-axis, whereas the participant count is shown on the Y-axis. Students who voted no are represented by dark blue, whereas those who voted yes are represented by dark green. Most commonly students were not flexible in online classes for both genders. This difference was statistically significant (Pearson's Chi-square value: 3.624, df = 1, P = 0.579 (>0.05) – significant)

study was carried out. One hundred and two people in total participated in the study and filled out the online questionnaire. The findings confirmed that three factors influence faculty satisfaction in the online environment: student, teacher, and organization factors. Another previous study was done by Anna Espasa and Meneses^[31] dealt with analyzing the feedback process in online learning and online teaching and the results were obtained from a sample of 186 students. A previous research done by Lauren Cifuentes,^[32]

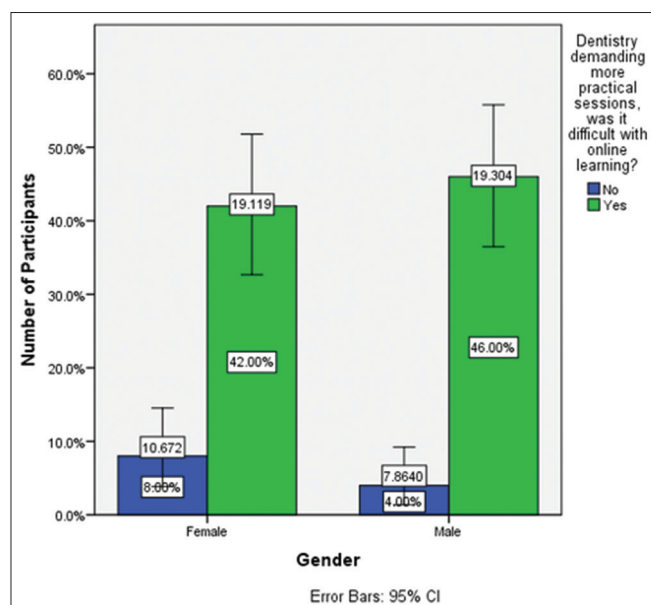


Figure 6: The link between gender and the need for additional practical sessions in dentistry is shown in a bar graph. Online learning was challenging in this case. The gender is shown on the X-axis, whereas the participant count is shown on the Y-axis. Students who voted no are represented by dark blue, whereas those who voted yes are represented by dark green. Most commonly students faced difficulty in doing practical sessions in online learning in both genders. However, the majority of the males faced difficulty when compared to women. This difference was not statistically significant (Pearson's Chi-square value: 1.515, $df = 1$, $P = 0.178$ (< 0.05) – not significant)

to determine the advantages of learning, the drawbacks of online teaching and online teaching methodologies, and the cultural considerations involved in cross-cultural collaboration, examined the documentation of online learning and teaching as well as their experience.

The fundamental issue with teaching in higher education is that student involvement is extremely low, which has a negative impact on academic achievement. With more students utilizing mobile devices to access the Internet recently, there has been an increase in interest in integrating mobile technology in the classroom to increase student engagement. To address this issue, a number of teaching techniques, processes, and resources have been built over time.^[33] Student satisfaction is closely correlated with simple task instructions, rubrics, and positive reviews, according to the findings of this analysis by Lee^[34] In addition, the professor's (or course instructor's) familiarity with the subject matter has an impact on students' levels of satisfaction.

The key component in successful online learning is believed to be self-efficacy; the majority of current studies on online self-efficacy, however, concentrate on computers. While machine self-efficacy is crucial for online learning, many academics have come to the conclusion that self-efficacy on many other levels is also necessary. As a result, one of the

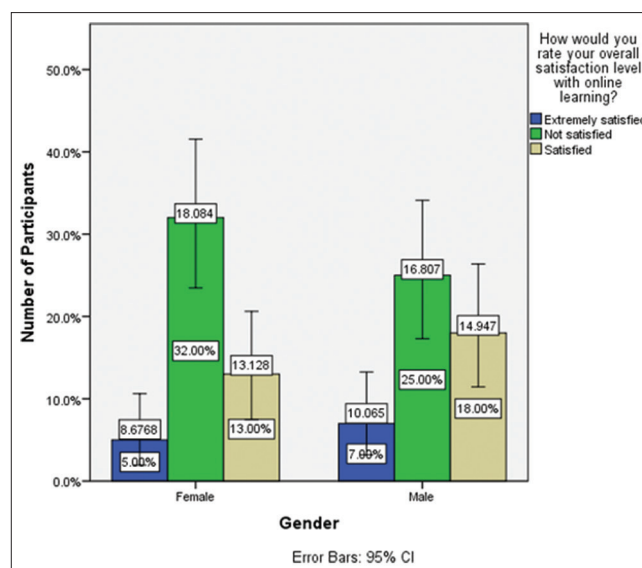


Figure 7: The association between gender and the satisfaction level with online learning. The X-axis represents the gender and Y-axis represents the number of participants. Dark blue represents the students who are extremely satisfied, dark green represents the students who are not satisfied, and brown represents the students who are satisfied. Most commonly students were not satisfied with both genders. However, the majority 12 of the females were not satisfied. This difference was statistically significant (Pearson's Chi-square value: 1.999, $df = 2$, $P = 0.368$ (> 0.05) – significant)

aims of this study was to define aspects of online learning self-efficacy.^[35] The limitation of this survey would be that the population size is less, could have expanded the population size, and questionnaire errors should have been avoided. The future scope of this study would be that the satisfaction level with the students is very important and if any barriers are faced by students then it has to be corrected in future.

CONCLUSION

Eighty percent of the students have faced difficulties while attending online classes. Ninety-two percent of the students have agreed that the technology helped them to attend their online classes. Many faced difficulties in clearing doubts while attending online classes. The overall satisfaction level with online classes among students was, 57% of the students were not satisfied with online classes, 31% were satisfied, and 12% were extremely satisfied.

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Conflicts of interest

There are no conflicts of interest.

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