# Impact of Online Education on Satisfaction and Academic Performance during COVID-19 among Students: A Review Study

**Nisha Mary Rajan, Jogindra Vati**

Department of Nursing, Himalayan University, Itanagar, Arunachal Pradesh, India

## Abstract

With the unexpected shift far from the classroom in many parts of the globe, a few are questioning whether or not the adoption of online studying will retain to persist publish pandemic, and the way this type of shift might affect the global education market. There are many studies said no satisfaction and overall performance of faculty kids on online education, some different studies imply partial or complete satisfaction and performance of students on online schooling, and few studies talk about the factors that decide the satisfaction and educational performance of school kids. There are 20 studies the researcher chose to discuss about it. Out of that 20, the 10 studies result shows that there were satisfaction and academic performance among the students by online education. Another six studies talk opposite to those 10 studies, but four studies said that some factors such as environment and method of teaching are deciding the satisfaction and academic performance among the students who attending the online education.

**Keywords:** Online education, students, satisfaction and academic performance, COVID-19

## INTRODUCTION

Coronavirus is a group of viruses that are the main root of sicknesses such as cough, cold, sneezing, fever, and a few respiratory signs. Coronavirus is a contagious disease that is spreading very fast among the people. COVID-19 pandemic resulted in a remarkable closure of school internationally and it prompted a halt to the training system. To overcome this trouble, governments have allowed continuation of training through the "online classes" or "e-learning."[1]

In India, the online lessons started out in a few parts of India from the 1st week of April and progressively the trend spread throughout the country.[2] This transition to online learning has impacted now not only students who have needed to alter to a new learning environment but also their parents who have needed to address this emerging technology and monitoring of children round the clock.[3]

The UNESCO recommends distance learning programs and open educational applications all through college closure resulting from COVID-19 so that schools and teachers use to teach their scholars and bound the interruption of training. Therefore, many institutes go for the online classes.[4]

As a flexible platform for learning and teaching processes, the E-learning framework has been more and more used. E-learning is described as a new paradigm of online learning based on information technology. In comparison to conventional learning, academics, educators, and different practitioners are eager to understand how e-learning can produce better outcomes and academic achievements.[5]

### Need for study

The exceptional outbreak of coronavirus disorder has been unfolding across the world, affecting the lifestyle of the people. It has extensively modified the way of global education and the teaching-learning procedure. The effects of this cross-sectional study showed that there may be a large difference among the

**Address for Correspondence:**
Nisha Mary Rajan, Department of Nursing, Himalayan University, Itanagar, Arunachal Pradesh, India. E-mail: rajan.m.nisha@gmail.com

desired modes of learning online or conventional classroom strategies at some point of the pandemic. A considerable growth inside the screen instances of college kids become found at the same time as learning online under school closure situation. This was one of the causes of several anxiety problems and intellectual health issues among college going kids and their dad and mom in India. It turned into additionally found that there was not much alternate within the sleeping patterns of the school-going children under lockdown conditions, and most mother and father have been content material that their wards are properly learning at home. A composite anxiety index (CAI) of the school-going children was developed using a few unique variables related to anxiety. Statistical findings of newly constructed CAI showed significant relationship with variables associated with attitude of students, sleeping patterns of sleeping children, and mental health of parents.[6]

Two hundred and eighty-nine guardians with an average age of 38.2 years (5.8) participated in the survey. A majority of the contributors had been girls (67.8%), from city background (75.4%), and had been graduate or postgraduate (67.5%). A majority (93.8%) of the kids were studying in personal faculties (English medium); attending online live training (83.7%). About 3-fourth of the participants (parents/guardians) stated that online classes had been less secure (81.7%), and much less great (78.5%); the guardians said that the youngsters had terrible attention and concentration (80.6%), had lower learning of theoretical and practical aspects of the subject (82.4%), and have been associated with lower capability of the child to sit satisfactorily during the class (78.6%). The maximum common reported distraction while attending the online classes became surfing net (52.2%) or participation in online competitions (52.2%). Approximately half of the guardians stated that there has been increase in irritability (45.0%), elevated demand to go to school (45.1%), and reduction inside the self-hygiene/care (43.4%) most of the children. Online training has a bad impact on the behavior and bodily health of the children. Those initial findings suggest that the extent of studying with normal training cannot be matched by means of the online classes.[7]

The scrutiny of the literatures shows that the factors affecting student satisfaction, however, the analysis on that research did not come about widely. Therefore, this study attempts to discover the factors that affect students' pleasure and performance concerning online training during the pandemic period of COVID-19.

## METHODOLOGY

Standard protocol of the systematic literature review becomes used in this study. The search becomes undertaken from November 2021 to December 2021. The techniques and reporting were advanced and carried out with systematic methodology.

### Source of literature

This drew on published literature in the electronic bibliographic databases of Academic Search Complete, Cumulative Index to Nursing and Allied Health, Global Health, MEDLINE Web of Knowledge, and Scopus and supplemented by scanning the reference lists of papers included for review. All studies are done between 2019 and 2021.

### Search terms

Search terms were applied with various Boolean operators for Four core concepts: Students; online education; satisfaction; and academic performance.

### Inclusion and exclusion criteria

The eligibility of studies for review was assessed on a set of inclusion and exclusion criteria, based on the impact of online education among students.

### Study selection and data extraction

Studies retrieved from databases were exported to full review and duplicated citations were removed. Abstracts were screened for relevance to the study question and country of the study. All other inclusion and exclusion criteria were applied through assessment of the full-text publications. Studies selected for inclusion were transferred to a Microsoft Excel spreadsheet for extraction of data items of setting, population, methods, and for thematic analysis.

### Quality appraisal

Quality of included studies was appraised separately for qualitative and quantitative methods assessing features of study design, methodology, and analysis. Studies were classified into strong, moderate, and weak based on criteria set within two different tools: Critical Appraisal Skills Programme and Effective Public Health Practice Project tools.

### Synthesis of results

The results were synthesized according to various parameters related to this topic. The results concerning factors were synthesized systematically according to the level at which the support on impact of online education on satisfaction and academic performance during COVID-19 among students.

## RESULTS

The search strategy retrieved 105 studies. After applying the process of selection, 20 studies were included for review. Studies selected for review represented referent countries. The researcher focused on Indian study more.

### The studies discussed on this study are as follows

There are many studies said no satisfaction and performance of students on online education, some other studies imply partial or complete satisfaction and performance of students on online education, and few studies talk about the factors that decide the satisfaction and academic performance of students. There are 20 studies the researcher chose to discuss about it. Out of that 20, the 10 studies result shows that there were satisfaction and academic performance among the students by online education. Another six studies talk opposite to those 10 studies, but four studies said that some factors such as environment

and method of teaching are deciding the satisfaction and academic performance among the students who attending the online education.

## The studies related to satisfaction and academic performance

The findings of a study carried out through Yamini (2020) indicated significant differences found between the concern of instructional failure and online and home environment among male and female students. With the aid of the use of emotional intelligence and distancing from boredom and depressive thoughts, students were seeking to address bad effects arising from the modern-day pandemic scenario.[8] The students discoursed that flexibility and convenience of online classes make it attractive alternative, whereas broadband connectivity problems in rural areas make it a challenge for students to make use of online studying initiatives. However, in agricultural education system in which many publications are sensible orientated, transferring absolutely to online mode might not be feasible and need to device a hybrid mode.[9]

A paper provides a web-enabled blended learning platform, which integrates conventional models of study room interactions with synchronous e-learning, facilitated through expert online instructors with digital audio-visible contents. The pilot study performed using proposed blended learning platform proves that it is feasible to provide fine education to underprivileged college students.[10] In some other study, the evaluation located that student who had experience of e-learning on social network sites also had an advantageous rating on the satisfaction with life scale (females 4.40 out of 6, standard deviation [SD] = 0.91 and adult males 4.38 out of 6, SD = 0.9). The attitudes closer to e-gaining knowledge were also positive (female 4.34 out of 6, SD = 1.0 and male 4.12 out of 6, SD = 1.2).[11]

The finding of another study research found out that scholars are happy with the support system from facilitator, course coverage, and online course content. The scholars also pointed on technical troubles, distractions, and absence of in-person interaction with facilitator as foremost project of online schooling system.[12] The study carried out by Ansari *et al.*, tested the software and value of social media and mobile devices in moving the assets, and interplayed with academicians in education.[13]

A study carried out through Sunita *et al.*, discovered the loopholes in online education system and a few positive factors of offline or school room teaching. The fundamental infrastructure in India being a growing country wishes to be provided with the aid of authorities before implementing online schooling on mass scale. Learning is the crux of how we human beings sustain and progress.[14] Another observes stated both online and offline learning educates human beings to help them turn out to be productive members of society. There is not a single learning mode that may be guaranteed to be 100% effective.[15] Shanna Smith stated analyses yield strong negative estimates for online learning in terms of both course persistence and course grade, contradicting the belief that there may be no great distinction between online and face-to-face student outcomes.[16]

The results of a study carried by Muthuprasad *et al.* (2021) who indicated that majority of the scholars (70%) are equipped to opt for online classes to manipulate the curriculum during this pandemic. Majority of the scholars preferred to apply smart smartphone for online mastering. This study observed that students select recorded classes with quiz on the stop of every class to enhance the effectiveness of studying.[17]

## The studies related to no satisfaction and academic performance

A study evaluates the effect of moving from conventional learning to online learning during COVID-19 pandemic. Statistics is collected in the first survey from 483 participants directly after the emergency shifting to online learning. Outcomes show that students had several issues with shifting to online learning for the duration of COVID-19 pandemic such as technological, mental fitness, time control, and stability between lifestyles and education. The results additionally show that more than a third of the surveyed students are dissatisfied with the online learning experience.[18]

A cross-sectional internet-based survey was conducted among 300 parents of children who attended online learning during the COVID-19 pandemic lockdown. Out of 300 parents surveyed, 72% were mothers, 65.6% of kids who attended online classes were from primary class, through Zoom platform (52.2%), the usage of an android cellular smartphone (71.1%) for a mean duration of $180 \pm 30$ min. About 80.4% of parents favored the traditional studying approach comparing to online classes for their youngsters. More than half (52.2%) of parents said that they had been partly happy with kid's online learning, whereas 26% have been not happy. More than half of the parents (61.1%) experienced a great challenge and burden of online studying.[19]

Belal *et al.* implied the feasibility of online schooling for modern students in a developed country. Primarily based on the survey of 203 undergraduate students, this research provides an assessment of their perspectives, desires, and wishes for the feasibility of offering online courses and programs. The overall result was no satisfaction and poor academic performance.[20] In another study, it was found that the parents whose children study in higher and higher secondary classes had been greater glad than the parents whose children study in primary classes.[21] Agyeiwaah *et al.* revealed the results point to a usually positive appraisal of online attributes, however, satisfaction is marginal.[22]

Dastidar and Ghosh found out that overall students' perceptions of online learning environments had a huge impact on student pleasure, with student interaction and collaboration being the maximum extensive predictor of all; however, trainer support, active learning, and scholar autonomy had been now not found to be significant predictors of student satisfaction.[23]

## Studies related to factors influencing satisfaction and academic performance

A correlational studies design was used and a sample of 406 students (male and female). The outcomes of moderation analysis through system macro 3.5 revealed that teachers' instructional guide performed a moderating role in students' satisfaction with online studying and the academic motivation of undergraduate students.[24]

Rashmi *et al*. explained that all the six impartial variables such as teachers' structured approach, teachers' technical readiness, teachers' self-efficacy, students' technical readiness, students' autonomy and students' self-efficacy motivated students' engagement, and delight toward synchronous online instructions drastically. The result of the structural model also reveals that students' engagement is a big predictor of students' satisfaction.[25]

A study found that in online class, the normal attendance of the scholars is 19.8%, at the same time as on the contrary, during offline class, the proportion is 70.4. About 77.5% of teachers agreed that the irregularity of students in lessons was caused due to non-accessibility of mobile telephones.[26] A study tailored Rekkedal and Eriksen's importance-satisfaction model to realize areas which are important to students in addition to their degree of satisfaction with every characteristic. It is found that the student group considered is generally satisfied with the help factors that they perceive to be essential and there may be a strong high-quality linear relationship (r = 0.83) among importance and satisfaction.[27]

## DISCUSSION

In India, the online classes started in a few parts of India from the 1st week of April and gradually the trend spreads throughout the country. This transition to online learning has impacted now not only college students who have needed to modify to a new learning environment but also their parents who have had to cope with this emerging era and tracking of children round the clock.[28] There are many studies said no satisfaction and overall performance of students on online training, some different studies suggest partial or whole pleasure and performance of students on online schooling, and few research talks about the elements that decide the satisfaction and academic performance of students. There are 20 studies the researcher chose to discuss about it. Out of that 20, the 10 study's results show that there were satisfaction and academic performance among the students by online education. Another six studies talk opposite to those 10 studies, but four studies said that some factors such as environment and method of teaching are deciding the satisfaction and academic performance among the students who attending the online education.

Many studies imply that there are positive students' satisfaction and academic performance. One study conducted by Kulal *et al*. and aimed at analyzing the perception of teachers and students about online classes. The work tries to explain the opinions of students as regards the impact of online courses, their comfortability in its usage, and the support received from teachers in online classes along with teachers' opinions on efficacy, teaching practice followed, and training received for an online class. The study reveals that students are comfortable with online classes and are getting enough support from teachers.[29] Another study conducted by Ram *et al*. also supports students satisfaction on online classes. This study is quantitative in nature, and the data were collected from 544 respondents through online survey who were studying the business management or hotel management courses in Indian universities. Structural equation modeling was used to analyze the proposed hypotheses.[30]

## CONCLUSION AND SUMMARY

With the unexpected shift away from the school room in many parts of the globe, a few are thinking whether the adoption of online learning will continue to persist post-pandemic, and how such a shift could impact the global education marketplace. While a few consider that the unplanned and fast pass to online studying – and not using a training, inadequate bandwidth, and little education – will result in a terrible user enjoy this is unconducive to sustained increase, others agree with that a new hybrid model of education will emerge, with significant benefits. Although, the effectiveness of online studying varies among age groups, the consensus on children, specifically younger ones, is that an established environment is needed, due to the fact children are more easily distracted.

## ACKNOWLEDGMENT

## REFERENCES

1. Basilaia G, Kvavadze D. Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia. Pedagog Res 2020;5:em0060.
2. Goswami K. Online Classes: From Meeting Friends to Internet Problems, First-hand Experiences of E-learning during Covid-19. India Today; 2020.
3. Lokanath M, Tushar G, Abha S. Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. Int J Educ Res Open 2020;1:12-6.
4. Shehzadi S, Nisar QA, Hussain MS, Basheer MF, Hameed WU, Chaudhry NI. The role of digital learning toward students' satisfaction and university brand image at educational institutes of Pakistan: A post-effect of COVID-19. Asian Educ Dev Stud 2020;10:276-94.
5. Moore MG, Kearsley G. Distance Education: A Systems View of Online Learning. Vol. 1. Wadsworth: Cengage Learning; 2011. p. 361-2.
6. Harjule P, Rahman A, Agarwal B. A cross-sectional study of anxiety, stress, perception and mental health towards online learning of school children in India during COVID-19. J Interdiscip Math 2021;24:411-24.
7. Grover S, Goyal SK, Mehra A, Sahoo S, Goyal S. A survey of parents of children attending the online classes during the ongoing COVID-19 pandemic. Indian J Pediatr 2021;88:280-0.
8. Chandra Y. Online education during COVID-19: Perception of academic stress and emotional intelligence coping strategies among college

students. Asian Educ Dev Stud 2020;10:229-38.

9. Global Effort. The Impact of COVID-19 on Student Equity and Inclusion: Supporting Vulnerable Students during School Closures and School Re-openings. Paris, France: OECD; 2020.

10. Dey P, Bandyopadhyay S. Blended learning to improve quality of primary education among underprivileged school children in India. Educ Inf Technol 2019;24:1995-2016.

11. Vate-U-Lan P. Psychological impact of e-learning on social network sites: online students' attitudes and their satisfaction with life. J Comput Higher Educ 2020;32:27-40.

12. Chhetri S, Dambhare A, Kakkar P. A Study on Evaluating the Satisfaction Level of Indian Hospitality Students with Online Education System during Covid Pandemic. Research Gate; 2020. p. 1-5.

13. Ansari JA, Khan NA. Exploring the role of social media in collaborative learning the new domain of learning. Smart Learn Environ 2020;7:9.

14. Sunita K, Naman W. Online versus Offline Mode of Education is India ready to meet the challenges of Online Education in lockdown? Research Gate; 2020. p. 1-48.

15. Wadhwa N, Khatak S. Online versus offline mode of education is india ready to meet the challenges of online education in lockdown? J Soc Sci 2020;48:404-13.

16. Xu D, Jaggars SS. The impact of online learning on students' course outcomes: Evidence from a large community and technical college system. Econ Educ Rev 2013;37:46-57.

17. Muthuprasad T, Aiswarya S, Aditya KS, Jha GK. Students' perception and preference for online education in India during COVID -19 pandemic. Soc Sci Hum Open 2021;3:100101.

18. Maqableh M, Alia M. Evaluation online learning of undergraduate students under lockdown amidst COVID-19 Pandemic: The online learning experience and students' satisfaction. Child Youth Serv Rev 2021;128:106160.

19. Joseph HB, Kuppuswamy S, Shetty AP. Children's online learning during COVID-19 pandemic: Experiences and satisfaction encountered by Indian parents. J Ideas Health 2021;4:443-9.

20. Kaifi BA, Mujtaba BG, Williams AA. Online college education for computer-savvy students: A study of perceptions and needs. J Coll Teach Learn 2009;6:1130.

21. Sharma I, Kiran D. Study of parent's satisfaction for online classes under lockdown due to COVID-19 in India. Null 2021;24:17-36.

22. Agyeiwaah E, Baiden FB, Gamor E, Hsu FC. Determining the attributes that influence students' online learning satisfaction during COVID-19 pandemic. J Hosp Leis Sport Tour Educ 2021;10:64-5.

23. Dastidar SG. The impact of students' perceptions of online learning environments on students' satisfaction in the context of Covid-19 pandemic. Stud Learn Teach 2021;2:61-72.

24. Namaziandost E, Naseer S, Rafique S. Moderating role of teachers' academic support between students' satisfaction with online learning and academic motivation in undergraduate students during COVID-19. Educ Res Int 2021;2021:7345579.

25. Maini R, Sehgal S, Agrawal G. Todays' digital natives: An exploratory study on students' engagement and satisfaction towards virtual classes amid COVID-19 pandemic. Int J Inf Learn Technol 2021;211-14.

26. Hazarika BB, Saikia DD, Dutta A, Boruah BB. Factors influencing online education during pandemic: A study from a state of India. Rev Int Geogr Educ Online 2021;11:440-6.

27. Mitra S. Student support services in open schooling: A case study of students' needs and satisfaction in India. Null 2009;24:255-65.

28. Li C, Farah L. The COVID-19 pandemic has changed education forever. This is how. World Econ Forum 2020;1-2.

29. Kulal AN. A study on perception of teachers and students toward online classes in Dakshina Kannada and Udupi District. Asian Assoc Open Univ J 2020;15:285-96.

30. Ram G, Varsha S, Arun A. Impact of online classes on the satisfaction and performance of students during the pandemic period of COVID 19. Educ Inf Technol 2021;26:6923-47.