

From Chalkboard to Screen: Attitude of Pre-Service Teachers Towards Online Classes

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ABSTRACT The main objective of this study is to analyse the level of pre-service teachers' attitude towards online classes since they are the future teachers in the field of education. The researcher employed a survey method using the self-developed and validated Online Class Attitude Measurement Scale (OCAMS) with a reliability coefficient of 0.876. Data were collected from 44 B.Sc. B.Ed. student-teachers of GRI (Deemed to be University), Dindigul, Tamil Nadu. Percentage and inferential analysis were employed to examine the data and study the group differences. Results of the study revealed that the overall attitude level of pre-service teachers toward online classes was above average at 69 percent. No significant difference was found in attitude in terms of gender, medium of instruction and discipline, indicating that these variables do not influence attitudes toward online classes and this study emphasises the importance of improving online teaching practices and providing professional development for pre-service teachers.

INTRODUCTION

Background of the Study: Online Education and its Scenario

Online education has become an important and integral part of higher education because of the accessibility for internet and flexibility in online courses (Lyons 2004; Li and Irby 2008; Luyt 2013) but the future of online education in higher education is expected to be critical (Allen and Seaman 2014). At the outbreak of COVID 19, when the traditional face-to-face class remained stopped for many institutions, online education was the first choice to the teachers (Xinogalos 2022 as cited by Deng and Yang 2025). Many researches mainly focused on online education during COVID-19 (Chen et al. 2021; Limniou et al. 2022; Lu et al. 2022 as cited by Deng and Yang 2025). Active participation in the learning process is promoted by online education. Students receive and exchange information through digital technologies like computers, mobile, the internet, and other modern gadgets (Pérez et al. 2023 as cited by Akpen et al. 2024). Traditional learning paradigms have been altered by the integration of digital technologies into teaching leading to a dynamic and easily accessi-

ble higher education learning environment globally. This paradigm change promotes an inclusive learning environment that cuts across national borders (Singh et al. 2024).

Attitudes towards technologies for education have been found to impact significantly the potential adoption of these technologies and to improve teaching practices, particularly for teacher educators and student teachers. This study clearly revealed that both teacher educators and Prospective teachers had the same positive attitude towards E-Learning in MOOCs (Joshi 2025). Online learning has emerged as a crucial component of modern education, especially during the COVID-19 pandemic, which necessitated a global shift from traditional classrooms to virtual environments. Students found online learning more flexible, convenient, and fitting the students' personal pace and learning style than face-to-face learning, they tend to form positive attitude toward online learning (Celik and Uzunboyly 2022 as cited by Lam et al. 2026).

A significant population receives support, knowledge, and employment from online education. At least one online course in 2010 was taken by more than 6 million students (Allen and Seaman 2014 as cited by Bawa 2016), and the number of students opting for online cours-

es is increasing by 10 percent. Additionally, corporate training is increasingly incorporating online learning (Bawa 2016). Many are resorting to hybrid and online courses, since higher education institutions find it difficult to satisfy the increasing demands of non-traditional students. These classes are more cost-effective since they free up classroom space and enable teachers to use technology to reach a larger audience. The efficiency of the teaching tactics is affected by the understanding of the students' experiences found in the courses. This study outlines the features of online and hybrid classes, the positive and negative experiences that students have had with them and what may be done to make them better (El Mansour and Mupinga 2007). Henriksen et al. (2020) state that video conference technologies like Webex, Google Hangout, Zoom could be used for the synchronous online teaching, giving meaningful discussion with their teachers and classmates (Simonson et al. 2008 as cited by Aybek and Kaya 2026).

Expectations of learners and their readiness, identity and participation are the issues of learners in online classes, and teachers' issues in online classes include faculty role changing, time management, shift from traditional face-to-face mode to online mode, interaction, and finally, teaching styles are predominantly to be discussed. However, teachers face issues like the role of instructors in content development and integration of multimedia in content development, then the role of instructional strategies in content development along with the considerations for content development (Kebritchi et al. 2017). Crawley et al. (2009) are of the view that many instructors struggle with content delivery and student engagement in the class due to lack of visual and face-to-face contact with them. Higher education institutions to meet these challenges with online education are planning to equip instructors with professional development, required training of learners, along with the technical help offered for effective content development and mechanism for content development. It is viewed that some students display anxiety for online learning while it is compared to a more traditional classroom learning environment (Unger and Meiran 2020). The success of online classes depends on the required skill of the learners and their interest in technology, along with

the accessibility of required resources used for online classes. Besides, the students' attitude and the attitude of teachers is expected to be critical in creating an attractive online learning environment. A student's attitude toward online learning will largely impact the way a student gets involved in an online course. The attitude is formed based on past experiences and it can then impact the student's actions and intention to take on online learning. Attitude has been found to be a determining factor for a student's participation and a positive attitude toward online learning is related to better engagement (Osiesi et al. 2025). Web-based learning has moved the world of education to a convenient mode along with the insistence of a standard curriculum (Kumar et al. 2021). However online education plays a vital role in today's education, as it has its own effectiveness and challenges, which are addressed below.

Effectiveness and Challenges of Online Education

It is in this context of convenient learning and improved participation of the students, that safety; cost and time-effectiveness were considered to be the most positive features of the online learning setting. Heavy workload, lack of ICT knowledge, distraction and reduced focus, uncooperative learners and insufficient support from instructors, limited availability of educational resources, problems with technology and the internet, poor network infrastructure, and low attendance of learners were the most recurrent negative aspects (Afroz et al. 2021). The findings of a study by Afroz et al. (2021) help instructors and institutions with understanding the attitude of students and teachers regarding online teaching and learning. Despite difficulties caused by infrastructure disparities (Adedoyin and Soykan 2023 as cited by Rahmani et al. 2024), a range of online tools and applications like Zoom, Microsoft Teams, Google Meet, Moodle, Microsoft Office and Dropbox, are used to improve the learning experience, performance, and quality of online teaching (Hinojo-Lucena et al. 2019 as cited by Rahmani et al. 2024).

A study by the National Center for Educational Statistics (Parsad et al. 2008) revealed that fulfilling students' expectations for flexible sched-

ules in learning (68%), offering college access to students who would not otherwise have it (67%), increasing the number of courses offered (46%), and trying to increase student enrollment (45%) were the main reasons why higher education institutions decided to offer online courses (Parsad et al. 2008). According to Maloney-Krichmar and Abras (2003 as cited by Wallace 2003), the World Wide Web made it easy to use websites everywhere, and the growth of online communities was enhanced by web pages and a variety of communications' software. Colleges and universities in the US and other nations have begun to offer online courses as well as entire degree programs (Sun and Chen 2016). It is found that 89 percent of four-year colleges and universities were found to offer courses taught fully online, or blended mode or hybrid or other forms of distance in the 2010-2011 academic year (Parker et al. 2011 as cited by Sun and Chen 2016).

A variety of digital educational technologies have enabled a significant shift toward virtual teaching and learning as a result of the shift to digital platforms (Mhlanga 2024). Continued reports in terms of achievement problems and high dropout rates found in online courses (Luyt 2013; Morris et al. 2005; Tyler-Smith 2006 as cited by Kebritchi et al. 2017) and conducting such researches and offering findings increasingly found to be critical in order to educate educators about their considerations necessarily done for enhancing the quality of online courses cited by Kebritchi et al. (2017). Student retention rates in online courses are still declining, even though enrollment percentages have increased. Understanding the evolving behaviours of online learners and teachers in the 21st century and analysing how they work together as a cohesive educational unit is crucial for lowering attrition and ensuring the ongoing growth of online courses (Bawa 2016).

Another study was conducted to determine the characteristics influencing the students' performance, satisfaction felt in online learning during the critical period of COVID-19 and to determine how these variables relate to one another. The independent factors studied in the research are quality of teachers, course design, timely feedback, and student expectations that have an impact on students' satisfaction, which in turn has a favourable impact on students' per-

formance (Gopal et al. 2021 as cited by Akpen et al. 2024). In learning online, students felt they could not communicate with their peers, teachers, or teams. It is felt that more participation would have improved their results and now felt socially alienated. Teachers and policymakers need to find solutions to deal with the problem of student involvement in online learning (Akpen et al. 2024).

The challenges educators experience when switching from offline to online teaching were also studied by Henriksen et al. (2020 as quoted by Gopal et al. 2021). Numerous studies on online learning have already been conducted to investigate learning efficiency, distance learning success factors, student satisfaction, and acceptance of e-learning (Sher 2009; Lee 2014; Yen et al. 2018 as quoted by Gopal et al. 2021). A study by Kedia and Mishra (2023) have explored the factors influencing the effectiveness of online learning such as interaction with peers, social media use, students' learning performance, technical support, instructor-student interaction, students' engagement, and family support. However, the influencing factors identified by researchers for success of effective online classes also depend more importantly on the attitude of the teachers who are the actual implementers of online classes.

The attitude of undergraduate nursing candidates towards the online classes was not found to be favourable. However, students are still reluctant towards the use of online classes despite the use of smart phones for a long time. Of course, there would be some barriers for both the students and teachers (Gaur et al. 2020). Interest of the learners in computers and convenience in online learning at the undergraduate level do not have any significant relationship. Slow and inadequate internet facilities and students' lack of understanding online learning, leads to negative approach in students towards online learning. Policymakers need to include online learning topics while framing curriculum and the government may organise workshops and seminars for equipping teachers with the knowledge and application skills of computers (Ullah et al. 2017). However, the merits and contribution of online classes are understood, and it is the attitude of the learners towards the online classes that decides the effectiveness of online learning. Hence it is mandatory to explore

the attitude of the learners who are the actual participants of the class. Hence the research was found to be warranted to study the attitude of pre-service teachers in online classes. The following paragraphs discuss the attitude of students towards online education.

Students' Attitude Towards Online Classes

A study by Unger and Meiran (2020) revealed the improvement in 51.4 percent of students feeling less anxiety in online learning after the 3 weeks but still 48.6 percent of students who exhibited anxiety towards distance education. A significant difference was noticed in the attitude of the sample who had psychological barriers like irritation, anger, tension and a decline in attention-concentration, due to the online classes. Though online classes are considered to be the most advantageous for students and teachers for their academic activities at the critical time of COVID-19, it is not able to replace the traditional face-to-face classes (Kumar et al. 2021). Personal computers, availability, affordability of technical gadgets such as smartphones, laptops and internet connectivity, along with lack of technological skills among the students, are the factors influencing the attitude of the students towards online classes in India (Kumar et al. 2021).

The study's findings also showed that students displayed favourable opinions on online education. They think that e-learning guarantees learning flexibility and helps them better manage their time. However, the study also identified the challenges that students encounter when utilising e-learning platforms, including the absence of interaction between students in virtual classrooms, faculty support, lack of enthusiasm for learning new skills, difficulty comprehending online content, lack of confidence in e-learning, and ignorance of the advantages of e-learning. Policymakers may incorporate online learning content into the curriculum, and the government may conduct workshops and seminars for teachers to equip them with necessary computer skills and classroom application, and the research's value can be highlighted to facilitate the process of accrediting more remote education programs (Kalam et al. 2021).

Despite extensive research reviews found on online learning effectiveness, only limited stud-

ies have been found to examine the attitudes of pre-service teachers, predominantly concentrating on those undergoing dual-degree training such as B.Sc. B.Ed. programmes. Hence this study mainly concentrated on the attitude of the B.Sc. B.Ed. students who play a dual role of being a student as well as a pre-service teacher. Hence pre-service teachers who had an exposure of online classes were identified for studying the attitude towards online classes.

Limitations of the Study

The findings cannot be generalised beyond the studied population as the size of the sample is less and as it was conducted with only 44 students of an intact class who had an exposure of online class during the COVID-19 situation. The study also mainly concentrated on the attitude of pre-service teachers towards online classes.

Objectives

Following are the objectives of the present research.

1. To find out the attitude level of pre-service teachers towards online classes.
2. To find out the attitudinal difference among pre-service teachers towards online classes in terms of gender.
3. To find out the attitudinal difference among pre-service teachers towards online classes in terms of the medium of instruction.
4. To find out the attitudinal difference among pre-service teachers towards online classes in terms of discipline.

Hypotheses

Following hypotheses were formulated for achieving the objectives of the research.

- H01: Attitude level of pre-service teachers towards online classes is at an average level.
- H02: Significant difference does not exist in the attitude of pre-service teachers towards online classes in terms of gender.
- H03: Significant difference does not exist in the attitude of pre-service teachers towards online classes in terms of the medium of instruction.

H04: Significant difference does not exist in the attitude of pre-service teachers towards online classes in terms of discipline.

MATERIAL AND METHODS

Research Design

The present research was done with the survey method, particularly as the present research aimed to study the existing attitude of pre-service teachers towards online classes. Survey research is fact finding research. The “Online Class Attitude Measurement Scale” (OCAMS) was used to study the attitude of pre-service teachers. The tool OCAMS used in this study consists of 16 items for evaluating the attitude of pre-service teachers in online classes. 6 items are negative and 10 are positive items. Each item in the tool has five options ranging from ‘strongly agree’ to ‘strongly disagree’. In each positive item, the scoring for ‘strongly agree’ is 5 marks, 4 marks for ‘agree’, 3 marks for ‘undecided’, for ‘disagree’ 2 marks and 1 mark for ‘strongly disagree’, while for the negative items the marks are reversed. Each item in this tool has its own characteristics of variables of the study to be considered for the appropriateness of the data to be collected pertaining to the research problem. Each item of the tool was also constructed carefully based on the critical review. The researchers developed the tool and established the face validity and content validity of the tool “Online Class Attitude Measurement Scale” (OCAMS) with the help of the experts in the field of education. Reliability was established with the split half method. The Cronbach’s alpha value of 0.876 revealed that the developed tool is reliable and the tool could be viewed as a unique contribution to measure the attitude of the pre-service teachers towards online classes. The tool “Online Class Attitude Measurement Scale” (OCAMS) was administered with 44 B.Sc. B.Ed. student-teachers (intact class) of Gandhigram Rural Institute (Deemed to be University) Dindigul District of Tamil Nadu, who had actual exposure of online classes during the COVID-19 pandemic. Out of the sample of 44, 14 pre-service teachers are male and 30 of them are female. The main reason for selecting the pre-service teachers for the study is that they are future

teachers who are expected to set an initial foundation for any of the educational practices. Before the data collection, the sample was instructed to go through the instructions mentioned in the tool carefully and respond to items appropriately.

Statistical Analysis

The data collected were carefully recorded and statistically analysed. Data analysis along with interpretation was done subject to the objectives and hypothesis of the research. Percentage analysis to find out the overall attitude level of pre-service teachers towards online classes and inferential analysis to understand the existence of differences between the variables were adopted in this research.

RESULTS

Results have been interpreted and discussed based on the hypotheses set in the research as follows.

H01: Attitude level of pre-service teachers towards online classes is at an average level

To find the overall attitude level of pre-service teachers towards online classes, percentage analysis was used in this study.

Table 1: Attitude level of pre-service teachers towards online classes

Variable	Percentage
Attitude level	69

From Table 1, it is found that the attitude level found among pre-service teachers towards online classes is 69 percent, which reveals clearly that pre-service teachers have an above average level of attitude towards online classes. Hence the hypothesis was not accepted. This overall finding of the study’ which shows favourable attitude towards online classes is due to the cognitive readiness and eager participation of the students and effectiveness of the class. This finding is aligning with the finding of Kumar et al. (2021) in which 72 percent of high school students were found to have a positive attitude towards online classes. However, the findings of a research done by Gaur et al. (2020)

stated that 76 percent of the students were found to have an unfavourable attitude towards online classes. It can be viewed that the attitude of the students towards online classes may differ based on their online class experience. Attitudes do enhance students' intentions to participate in digital education environments (Ferrer et al. 2022; Zobeidi et al. 2023 as cited by Lam 2026). It is important to note and take cognisance that experience of the learners' readiness, identity, and participation which are also found to be the issues of learners in online class as stated by Kebritchi et al. (2017). Active engagement of students throughout their online learning journey emerges as a critical factor in enhancing the overall learning performance (Heo et al. 2022; Tanis 2020 as cited by Lam 2026). So teachers are expected to take initiatives to address these issues for the improvement of the attitude of learners towards online classes.

H02: Significant difference does not exist in the attitude of pre-service teachers towards online classes in terms of gender

To find the existence of differences in the attitude of pre-service teachers towards online classes in terms of gender, 't' test was used.

From Table 2, it is clear from the 't' value 1.552, which is less than the table value of 1.96 at 0.05 level of significance, that no significant difference is found to exist between male and female pre-service teachers in their attitude in online classes. Hence the null hypothesis remains accepted. It is evident that both boys and

girls are found to have an equal level of attitude towards online classes. This study finding is also supported by the finding of the study by Kumar et al. (2021), which revealed that both boys and girls had an equal level of attitude towards online classes. It could be analysed that both boys and girls have equal exposure to mobile phone usage, which makes no significant difference among them in their attitude towards online classes. Hence, gender is not an influencing variable to study the attitude of pre-service teachers towards online classes.

H03: Significant difference does not exist in the attitude of pre-service teachers towards online classes in terms of the medium of instruction

To find out the existence of differences in the attitude of pre-service teachers towards online classes in terms of the medium of instruction, 't' test was used.

From Table 3, it is evident from the 't' value of 0.811, which is less than the table value 1.96 at 0.05 level significance, that no significant difference is found to exist between pre-service teachers studying in Tamil medium and English medium classrooms in their attitude towards online classes. Hence the null hypothesis remains accepted. Further it was inferred that medium of instruction is not an influencing variable to study the attitude of pre-service teachers towards online classes because medium of instruction in online class does not make any significant contribution to study the attitude of the students towards online classes.

Table 2: Attitude of pre-service teachers towards online classes in terms of gender

Variable		N	Mean	SD	't' Value	Level of significance
Gender	Male	14	52.21	9.994	1.552	NS
	Female	30	56.30	7.145		

NS* at 0.05 level of significance

Table 3: Attitude of pre-service teachers towards online classes in terms of the medium of instruction

Variable		N	Mean	SD	't' Value	Level of significance
Medium of Instruction	Tamil	9	53.00	10.548	0.811	NS
	English	35	55.51	7.675		

NS* at 0.05 level of significance

H04: Significant difference does not exist in the attitude of pre-service teachers towards online classes in terms of discipline

To find out the difference in the attitude of pre-service teachers towards online classes in terms of discipline, 't' test was used.

From Table 4, it is obvious from the 'F' value 0.539, which is less than the table value 1.96 at 0.05 level of significance, that no significant difference is found to exist between pre-service teachers in terms of their discipline in their attitude towards online classes. Hence the null hypothesis remains accepted. The reason could be that all the students of Maths, Physics and Chemistry had a common platform that naturally led to the common experience. Also, there were some common factors like internet access, home atmosphere, and technical access that were almost the same, which contributed to having the same opinion. Hence it could be stated that discipline is not an influencing variable to study the attitude of pre-service teachers towards online classes.

DISCUSSION

Online learning has become an important component of the modern education system, especially at the time of the COVID-19 pandemic, that paved a way for a universal move from traditional classrooms setup to a virtual learning atmosphere (Shabbir et al. 2025). The present study researched the pre-service teachers' attitudes regarding online learning, which has a relevance and has grown to be an important component of contemporary education. The results showed that pre-service teachers' attitudes toward online courses are at above average level at 69 percent. Attitude improves students' aim for participating in the digital education settings (Ferrer et al. 2022, Zobeidi et al. 2023 as cited by Lam 2026).

This suggests that future instructors have a generally favourable opinion of online learning. This outcome is supported with research by Kumar et al. (2021), which found that most of the students have a positive attitude toward online learning. The flexibility, accessibility and convenience provided by online learning settings may be responsible for the favourable tendency (Li and Irby 2008; Sun and Chen 2016). In spite of the positive attitude towards online classes found in this study, it is indicative that the attitude level is not found to be very high, which reveals the certain existing challenges, as the previous researches also highlighted issues like technical difficulties, limited engagement in online classes, reduced attention span, and lack of interaction (Afroz et al. 2021; Kebritchi et al. 2017). Such factors may influence the learners to accept online education. In this connection, anxiety and psychological disturbances related to online learning are also reported as the factors affecting the attitude of learners (Unger and Meiran 2020). Further, online education is acknowledged and it needs improvements in terms of delivery and strategies to engage the learners accordingly. Online learning also has its own challenges like lack of interaction in the class, lack of motivation for students, challenges for attention management (Jili et al. 2021 as cited by Gocer and Karabatak 2026).

The result of the study also revealed clearly the insignificant difference among the learners in their attitude in terms of gender. This indicates that pre-service teachers have a similar attitude in online classes irrespective of gender. This finding is correlating with Kumar et al. (2021), who had also stated that the equal exposure of digital technologies to both male and female trainees and the equal access of smart phones among both genders might have led to the reduction of any disparity among the learners. In the same way, medium of instruction did not make any significant influence in the atti-

Table 4: Attitude of pre-service teachers towards online classes in terms of discipline

Variable		N	Mean	SD	't' Value	Level of significance
Discipline	Maths	16	54.62	7.813	0.539	NS
	Phy	19	56.32	9.655		
	Che	9	52.89	5.798		

NS* at 0.05 level of significance

tude of pre-service teachers that clarified that language was not a barrier in online learning environments. Accessibility of digital resources to all learners may lead to this uniformity in their attitude towards online classes. This idea is in tune with the idea of Kalam et al. (2021) who suggested that online learning platforms accommodate all diverse learners irrespective of their linguistic background.

In addition, this study also revealed no significant difference in terms of their major discipline (Mathematics, Physics and Chemistry). This clearly indicated that students from different academic backgrounds perceive online learning in the same way. This finding was supported by the idea that online platforms effectively deliver the content across disciplines (Gopal et al. 2021). Contrasting results, however, are also found in the literature. Gaur et al. (2020) found that most students disclosed negative attitudes towards classes online due to variations in readiness of the learners, prior experience with online learning, and disparities in technology infrastructure. In addition to increased investments in new technological developments, a variety of technical infrastructure in educational institutions should place a higher premium on the training of academics (Mhlanga 2024) for promoting online learning. Improvement in teaching methods at worldwide is found due to the advancement of technology and the classroom shift to online made a visible effects on individual learning (Zheng et al. 2026). Through online, teachers use such MOOCs Course for conducting online classes, publishing their learning tasks, uploading their recorded courses (Zhen and Hu 2022 as cited by Zheng et al. 2026).

Ullah et al. (2017) have stated that a number of factors such as digital literacy, internet connectivity, and device access make a significant impact on views on online education. Overall, the results of the present research show that pre-service teachers' attitudes about online learning are generally favourable and are not greatly impacted by demographic factors like discipline, gender, or the medium of instruction. Rather, opinions are more significantly shaped by technology and experiential variables.

Accessibility of technology, presence of teachers, and interaction with peers were found to be major predictors for the success of online

learning. It is mandatory to address these areas for enriching the quality of virtual education in higher education institutions (Shabbir et al. 2025). Hence, enhancing the online teaching environment and resolving current issues will contribute to addressing the existing challenges and increase the success of online learning. Consequently, pre-service teachers will become more optimistic and be better equipped to incorporate digital learning into their future teaching. So, Creating an involving, supportive and more useful online learning environments in alignment with the goals and expectations of the learners is essential (Yang and Stefaniak 2026).

Further this research is of great importance as it explores the attitudes of pre-service teachers toward online classes. The fact is that pre-service teachers would eventually serve in more technology-integrated environments. Their attitude being more positive toward online classes means they have a positive attitude to digital learning, and will more likely embrace current technology. The research is also valuable and contributive as it presents a tool, the Online Class Attitude Measurement Scale (OCAMS), a validated instrument to measure one's attitude toward online classes. Lastly, the study shows that gender, medium of instruction and discipline have no significant influence on attitudes toward online class, which suggest there is a uniform attitude among pre-service teachers toward online learning. The results will provide valuable information to teacher educators, curriculum planners and policymakers who want to prepare the future teachers for an increasingly digitalized learning environment. It points to the need for enhancing digital pedagogical skills and developing online teaching in pre-service teacher education. This research further tries to bridge the gap between future teachers and policy makers in terms of meaningful policy making and successful implementation.

CONCLUSION

Digitalisation and online mode are the paradigm shift increasing and simplifying the work of the learners and teachers. It is not exceptional in the field of education too. In the educational field the integration of online learning occupies a significant place and promotes education to

the higher level. All the institutes need to focus and provide guidance to build up the interest in students towards online classes with respect to initial instructions to the students, technical assistance, proper time frame, and interactive sessions for sustaining interests, and motivation among the students for enhancing the attitude of the students in online classes.

RECOMMENDATIONS

The findings show that students generally have an above-average favourable attitude toward online learning, demonstrating a high level of acceptance and preparedness to interact with digital learning environments. However, based on the result, it is suggested that institutions can use consistent teaching methods without the necessity for gender-specific differentiation because gender has no significant variation on students' views regarding online learning. This implies that online learning offers a fair learning environment in which students of all genders can engage, participate, and gain equally. Given that online education is widely embraced by students, educational institutions and authorities may concentrate on increasing access and enhancing technology infrastructure. Furthermore, online education can be promoted as an inclusive and widely accessible mode of learning since academic discipline, and medium of teaching are not influencing factors. All students can benefit from standardised orientation sessions, shared digital learning materials, and institution-wide support services without regard to background disparities. To maintain and strengthen students' positive views, emphasis should be directed on improving learner support systems, interaction, and content quality. Building on this general positive attitude toward online learning will contribute to its successful integration and long-term efficacy in a variety of educational environments. Creation of learner friendly environment that involves and engages the learners is need to catered. Only then students will have interest in online classes and become impactful for the learners.

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