Journal of Advanced Research in Humanities and Social Sciences
Volume 12, Issue 1 - 2025, Pg. No. 17-25
Peer Reviewed Journal

Research Article

Bridging Digital and Traditional Classrooms: Students' Views on Online and Offline Teaching in Punjab

Manisha Khosla[1], Gurdeep Singh Batra[2], Sulakshna Dwivedi[3]

[1]Research Scholar, University School of Applied Management, Punjabi University, Patiala, Punjab, India
[2]Former Professor, School of Management Studies, Punjabi University, Patiala, Punjab, India
[3]Associate Professor, School of Business Management and Commerce, Jagat Guru Nanak Dev Punjab State Open University, Patiala, Punjab, India
DOI: https://doi.org/10.24321/2349.2872.202501

I N F O

Corresponding Author:
Sulakshna Dwivedi, School of Business Management and Commerce, Jagat Guru Nanak Dev Punjab State Open University, Patiala, Punjab, India
Email Id:
dwivedisulakshna69@gmail.com
Orcid Id:
https://orcid.org/0000-0001-8728-3645
How to cite this article:
Khosla M, Batra G S, Dwivedi S. Bridging Digital and Traditional Classrooms: Students' Views on Online and Offline Teaching in Punjab. *J Adv Res Humani Social Sci 2025; 12(1): 17-25.*

Date of Submission: 2025-02-12
Date of Acceptance: 2025-03-25

A B S T R A C T

This study investigates students' perceptions of online and offline teaching modes in state universities in Punjab, focusing on students from five departments: Management, Computer Science, Engineering, Pharmacy, and Hotel Management. A sample of 720 students from five major state universities was surveyed to examine their perception regarding online and offline teaching modes. The study reveals that students generally prefer offline learning, citing higher satisfaction with course outcomes, personal engagement, and instructor feedback. However, a significant number of students (45.7%) favoured blended learning, a combination of online and offline methods, indicating a desire for a flexible, interactive learning environment. Online learning, despite its flexibility and cost-effectiveness, was associated with challenges such as lower engagement, isolation, and difficulties in obtaining timely feedback. The study also highlights the importance of fair assessments, the use of social media platforms for collaborative learning, and usability features in learning management systems (LMS) to enhance the online learning experience. Additionally, students indicated the need for improved technological support, personalised feedback, and instructor training to enhance online learning. Based on these findings, the study suggests that educational institutions should focus on integrating blended learning models, enhancing online engagement, and addressing technological barriers. The findings underscore the importance of adapting teaching strategies to create a more engaging and effective learning environment.

Keywords: Bridging Digital, Management, Computer Science

Introduction

The quality of education in technical institutions plays a crucial role in shaping a skilled workforce that contributes to economic growth and development. Technical education helps in enhancing executive capabilities and distinct expertise needed for the profession, and it influences the GDP of the country as well.[1] With the global economy increasingly driven by technological advancements, the

demand for highly trained technical professionals has risen significantly. Historically, Punjab has struggled to meet the demand for technical education, compelling students to seek admission in institutions outside the state, particularly in southern India.[2] Over the past two decades, however, Punjab has witnessed a significant increase in the number of technical institutions, including engineering colleges and university departments. These institutions have played a vital role in fulfilling industrial demands for a skilled workforce.[3] With rapid industrialisation in sectors such as manufacturing, IT, and healthcare, the importance of technical education has grown even further.[4] As technical education continues to evolve, it is imperative to ensure that both educational service quality and instructional methods align with industry requirements.

Ensuring that technical institutions provide quality education through effective teaching methods is essential to meeting the evolving needs of industries.[5] One critical aspect of this educational quality is the mode of instruction—whether online or offline—affecting student learning experiences and engagement levels. Educational institutions worldwide have integrated online teaching methodologies to enhance learning experiences, particularly after the COVID-19 pandemic, which necessitated remote learning.[6] Online learning has provided several advantages, such as accessibility, flexibility, and cost-effectiveness. However, concerns regarding engagement, interaction, and learning outcomes have also been raised.[7] Offline learning, on the other hand, has traditionally been associated with better student engagement and instructor feedback but lacks the flexibility and accessibility of online education.[8] Key aspects influencing student perceptions of online and offline learning include the fair conduct of examinations and assessments, which significantly impact student satisfaction and trust in the education system.[9] The use of social media platforms such as Edmodo and Moodle has enhanced peer interaction and resource sharing, making online learning more collaborative and engaging.[10-11] Usability, particularly the ease of access and navigation within Learning Management Systems (LMS), plays a crucial role in determining the effectiveness of online education.[12] Additionally, accessibility to study materials and digital resources on a unified platform is essential for improving student engagement and learning efficiency[13]. Lastly, the ease of submission of assignments through user-friendly interfaces ensures a smoother learning experience, making online education more convenient and efficient for students.[14] Research on student perceptions of online and offline learning reveals mixed findings. While e-assessment views are generally neutral[15], online learning reduces social pressure and enhances participation.[16] Social presence fosters engagement[14], though platforms like Edmodo have both advantages and challenges.[17] Online exams evoke mixed emotions.[18]

The present study investigates the perceptions of students regarding online and offline teaching in state universities in Punjab. This study is based on a sample of 720 students from five major state universities in Punjab: Punjabi University, Patiala; Panjab University, Chandigarh; Guru Nanak Dev University, Amritsar; Maharaja Ranjit Singh Punjab Technical University, Bathinda; and I.K. Gujral Punjab Technical University, Kapurthala. The study will focus on students from five departments—Management, Computer Science, Engineering, Pharmacy, and Hotel Management—to provide a diverse representation of technical disciplines.

Literature Review

Student perceptions of online and offline learning are influenced by several key aspects, including the fair conduct of examinations and assessment grades, the use of social media platforms, usability, accessibility, and the ease of submitting assignments. Fair and appropriate examination procedures play a crucial role in the overall effectiveness of teaching.[9] The integration of social media platforms as supplementary tools has gained popularity, particularly in social sciences, as they facilitate virtual learning environments. Platforms like Edmodo, often referred to as the "Facebook for education," provide cost-effective and collaborative opportunities for students to engage with learning materials, submit assignments, and participate in discussions.[10-11] Online education fosters increased social presence, enabling thoughtful and reasoned interactions despite physical separation.[19] Contrary to the notion of isolation, online learning can be liberating for students who struggle in traditional classroom settings. Computer-mediated communication tools further enhance collaborative learning, bridging psychological gaps and fostering skill and knowledge exchange through mutual engagement.[20] Social constructivism supports this approach, emphasising that knowledge is developed through social interaction and negotiation of meaning.

Usability is another critical factor, encompassing the ease of installation and operation of Learning Management Systems (LMS), as well as flexibility in attending interactive sessions.[12] A well-structured LMS should allow seamless access to digital learning materials, offer keyboard shortcuts for navigation, and provide clear instructions to facilitate learning at an adjustable pace. Accessibility further enhances the learning experience by offering study materials for multiple subjects on a single platform, ensuring inclusivity for diverse learning needs and abilities[12]. LMS features should be designed to accommodate learners through customisable content layouts and navigation settings[13]. Additionally, the ease of submitting class assignments is a crucial component of accessibility. User-friendly downloading and uploading features, smooth navigation between quiz questions, and integrated email functionalities contribute to an efficient

ISSN: 2349-2872
DOI: https://doi.org/10.24321/2349.2872.202501

learning experience[13-14]. These factors collectively shape students' perceptions of online and offline learning, influencing their engagement, collaboration, and overall educational experience.

Several studies have examined student perceptions of online and offline learning, highlighting both advantages and challenges. Some research indicates a preference for online learning due to factors such as comfort, alertness, and satisfaction [21]; other studies suggest a stronger preference for traditional classroom teaching[8]. Factors influencing these preferences include convenience, flexibility, teacher-student interaction, and learning experiences.[6-7] The transition to online learning during the pandemic has raised concerns about social presence and the effectiveness of knowledge transfer compared to traditional methods.[8] Additionally, some students continue to fear COVID-19 transmission even after vaccination, affecting their attitudes towards in-person classes.[21]

Dermo[15] focused on students' attitudes towards e-assessment, examining factors like practicality, reliability, and security. The study found that students did not express extreme views on e-assessment, with gender and age being significant influences on their attitudes. No serious concerns were raised about its security or reliability.

Arasaratnam and Northcote[16] examined the advantages of online learning, arguing that it offers unique opportunities not available in face-to-face teaching. Online learning provides more freedom for students to engage in discussions without social pressures, and it allows responses at their own pace. The study also emphasised how online platforms promote egalitarianism by letting students choose their social circles and engage with peers from diverse backgrounds.

Grieve et al.[14] explored students' experiences with using computers for submitting assignments and generating grades. The study found that students were generally positive about using technology for educational tasks, but attitudes toward online and offline learning were inversely correlated—students with positive views about one mode tended to have negative views about the other. The study recommended strategies to enhance social presence in online learning, such as using synchronous communication tools and providing personalised feedback.

Hakim et al.[17] studied students' perceptions of using the Edmodo platform for learning. While most students considered it an effective tool, challenges included time consumption and its dependence on the teacher's skills. Despite these issues, the platform was seen as beneficial in promoting interaction and motivating students.

Gloria and Uttal[22] discussed the shift from face-to-face to online learning, focusing on how to restructure online courses. They emphasised the need for clear planning, such as determining grading methods, restructuring lectures, and determining the frequency of face-to-face interactions. The study suggested that successful online courses require careful planning and integration of technology.

Gherhes et al.[23] investigated students' preferences for face-to-face learning, noting that many students preferred traditional teaching. However, they also acknowledged the potential benefits of online learning, especially for students from underprivileged backgrounds who may not have access to regular education. The study highlighted that online learning could provide opportunities for more inclusive education.

Golding and Jackson[18] explored students' satisfaction with online examinations, finding that students were satisfied as long as there was adequate support for assignments and feedback. However, the study also found that students experienced mixed emotions toward online learning, including frustration and anxiety, indicating the emotional complexity of the online experience.

Inan and Karaca (2021) studied the perspectives of students, instructors, and institutions during the COVID-19 pandemic. The study found that institutions adapted well to online learning, but students' reactions were mixed, with those lacking technological resources expressing dissatisfaction. The study stressed the need for equitable access to technology for online learning to be effective.

Istijanto[24] compared students' perceptions of online and offline learning based on four factors: institutional resources, the educational process, instructor effectiveness, and administration. The study found that the educational process had the greatest impact on student satisfaction and emphasised the need for institutions to manage these factors effectively in online settings.

Kumar and Verma[25] assessed online teaching practices during COVID-19, noting that while teachers generally had positive experiences, some faced technical challenges. The study found a positive correlation between teacher motivation and student engagement, suggesting that motivated instructors can enhance the learning experience despite online challenges.

In summary, these studies highlight the complex perceptions students hold regarding online and offline learning. While online learning offers flexibility, reduced social pressures, and egalitarianism, challenges such as technological limitations, feelings of frustration, and the need for instructor skill development remain important considerations for improving the online learning experience.

ISSN: 2349-2872
DOI: https://doi.org/ 10.24321/2349.2872.202501

Methods

Participants and Procedures

The study sample consists of faculty members from five state universities, with each university contributing 720 students. These universities include Punjabi University, Patiala; Panjab University, Chandigarh; Guru Nanak Dev University, Amritsar; Maharaja Ranjit Singh Punjab Technical University, Bathinda; and I.K. Gujral Punjab Technical University, Kapurthala. Students were from five departments: Management, Computer Science, Engineering and Technical Courses, Pharmacy, and Hotel Management and Catering, with 50 students from each department in each university. This results in a total student sample size of 720 (as there was no Pharmacy department in IKGPTU, Kapurthala), providing a comprehensive and diverse representation across various disciplines in technical education.

Measures

Respondents were asked to share their perceptions regarding online and offline teaching using a 7-point scale. The survey included questions on various aspects such as fair conduct of examinations without scope for cheating, the use of social media platforms to motivate students by making assignments viewable to peers, and fair assessment grades in comparison to the efforts put in. Additionally, it assessed flexibility and mobility in attending interactive sessions, the provision of study materials for multiple subjects on a single platform, and the ease of submission and checking of class assignments. Sample items included: "Fair conduct of examinations (without leaving any scope of cheating) – Online/Offline" and "Use of social media platforms to motivate students (by making their assignments viewable to other students as well) – Online/Offline." The respondents were asked about their preferred mode of teaching for the future—traditional (offline), online, or blended (a mix of both). Lastly, their level of participation in online live classes was evaluated, with options ranging from active and passive to no participation. Furthermore, the survey also measured satisfaction with online and offline education, including the extent of satisfaction with course outcomes, feelings of being valued as a customer, and preferences regarding the delivery of teaching services in both modes.

The demographic profile of Students

The demographic profile of the study participants includes a balanced representation of gender, academic level, course, and university. Among the participants, there were 337 male students (46.8%) and 383 female students (53.2%). In terms of academic standing, 300 students were post-graduates (41.67%), while 420 students were undergraduates (58.33%). The students were enrolled in five different course streams: Management Studies, Computer Sciences, Engineering and Technical Courses, and Hotel Management and Catering, with each stream containing 150 students. The pharmacy stream had 120 students. Regarding university distribution, each of the following institutions contributed 150 students: Guru Nanak Dev University, Amritsar (GNDU), Punjabi University, Patiala (PUP), Punjab University, Chandigarh (PUC), and MRSPTU, while IKGPTU contributed 120 students due to the absence of a pharmacy department at this university. This detailed demographic breakdown ensures a balanced representation, facilitating a comprehensive analysis of the study results.

Analysis

Perceptions of the Students as to Online and Offline Teaching

Paired Samples Statistics

The data for paired samples offer a comparative examination of how students see different facets of both offline and online learning modalities, as presented in Table 1 of Paired Samples Statistics.

Exam Fairness: The online mode's mean score is 3.461, with a standard deviation of 1.9322, and the offline mode's mean score is 4.975, with a marginally smaller standard deviation of 1.8847. This suggests that students believe exams are administered more fairly in offline than online formats. The mean score for the second statement, i.e., the online option, is 3.625, with a standard deviation of 1.9900, and for the offline mode, it is 3.521, with a slightly lower standard deviation of 1.9261. These results relate to the usage of social media platforms to motivate students by making assignments available to others. This indicates that students' opinions of using social networking sites for online motivation are somewhat more positive.

When it comes to fair assessment grades in relation to efforts put in, the mean score, as shown in Table 1, for the online mode is 3.323, with a standard deviation of 1.9014, and for the offline mode is 3.761, with a little lower standard deviation of 1.7857, This suggests that students view both formats as fairly grading assignments, with a preference for the offline mode.

As far as flexibility and mobility to attend interactive sessions, the mean score for the online mode is 3.529, with a standard deviation of 1.8947, and for the offline mode is 3.765, with a slightly higher standard deviation of 1.8221. This indicates that while students' preferences for the offline option are slightly higher, they perceive equivalent amounts of freedom in both modalities.

As far as results related to the availability of study material for several individuals on the same platform are concerned, the mean score for the online option is 3.672,

ISSN: 2349-2872
DOI: https://doi.org/10.24321/2349.2872.202501

with a standard deviation of 1.8672, and for the offline mode is 3.755, with a slightly lower standard deviation of 1.8222. This suggests that both modes' perceptions of the availability of study materials are similar.

Lastly, as far as easy submission and checking of class assignments are concerned, the mean score for the online mode is 3.768, with a standard deviation of 1.8529, and for the offline option is 4.003, with a little larger standard deviation of 1.8667, indicating ease of submission and checking of class assignments. This shows that students prefer the offline mode even if they believe both allow for simple assignment submission and checking.

Preferences for the Future Modes of Teaching

The distribution of students' opinions regarding their preferred style of instruction going forward is shown in Table 2, 45.7% of respondents, or the majority, said they preferred blended learning—a strategy that blends online and offline instruction. This suggests that a sizable percentage of students are aware of the possible advantages of combining several teaching philosophies. However, 16.3% of respondents preferred learning only through online means, which is a significant but decreasing percentage. 38% of the students supported traditional offline instruction. This points to a wide range of student preferences for the future form of instruction, highlighting the significance of taking hybrid models into account in order to meet different learning demands and styles. These results offer insightful information to academic institutions looking to improve and modify their teaching strategies in response to changing student needs and the state of education.

Participation in Online Live Classes

The distribution of students' involvement levels in online live classes is shown in Table 3. The vast majority of students (67.2%) reported actively participating in online live classes, demonstrating the high degree of student engagement during distant learning. However, passive engagement was reported by 29.6% of respondents, indicating that a sizable portion of students were present but may not have been as engaged or conversational. A smaller percentage, 3.2%, decided not to take part in any online live classes at all. These results highlight the various ways in which students interacted with virtual learning environments, highlighting the significance of introducing interactive components and promoting active engagement to improve the overall calibre of online learning. Teachers and educational institutions can use these results to customise their online teaching tactics so that students with different learning styles and preferences can be engaged and accommodated more effectively.

Frequency Distribution of Satisfaction with Online and Offline Learning

Table 4 reflects students' satisfaction with teaching services during the COVID era, comparing online and offline learning. The responses are categorised as P < E (Below Expectation): Experience fell short of expectations, P = E (Met Expectation): Experience met expectations, and P > E (Exceeded Expectation).

Comparative Insights

Online vs. Offline Learning Satisfaction:

- Dissatisfaction (P < E) was higher for online learning across all dimensions, indicating students had greater challenges adapting to online teaching during the COVID era.
- Offline learning had a relatively higher proportion of responses indicating outcomes and services exceeded expectations (P > E), especially in course outcomes and delivery.

Persistent Dissatisfaction:

Regardless of mode, a significant percentage of students reported dissatisfaction (P < E), particularly with feeling valued and delivery of teaching services, pointing to systemic gaps in addressing student needs.

Delivery of Teaching Services:

While online teaching delivery saw 29.3% satisfaction beyond expectations (P > E), offline teaching fared slightly better at 30.4%. However, dissatisfaction remained significant in both modes, requiring institutional attention.

Course Outcomes:

Students were relatively more satisfied with course outcomes in offline learning, with 31.5% reporting exceeded expectations (P > E) compared to 21.8% in online learning.

Table 4 Frequency Distribut ion of Satisfaction with Online and Offline Learning

Descriptive Statistics of Satisfaction with Online and Offline Learning

To determine the statistical significance of the variation in participant satisfaction across online and offline learning environments (n = 720), descriptive statistics, as shown in Table 5, were used. In contrast to offline education, which had a mean satisfaction score of 4.011 (SD = 1.9293), online education was found to have a mean satisfaction score of 3.332 (SD = 1.8351) in respect of course outcomes. Offline learning had a mean score of 3.891 (SD=1.9756) in respect of being valued as a customer, as compared to offline learning, which had a mean score of 3.765 (SD=1.8763). The mean score of liking for offline teaching being delivered is

ISSN: 2349-2872
DOI: https://doi.org/ 10.24321/2349.2872.202501

3.978 (SD=1.8977), whereas for online teaching, the mean score is 3.876 (SD=1.8126). Based on the replies of the participants, the results indicate that offline education was linked to higher satisfaction levels than online education. This research highlights how crucial it is to take student happiness into account when comparing various delivery methods for education. Understanding these preferences may help institutions better adapt their support networks and instructional strategies, giving students a more fulfilling and happy educational experience.

Table 1.Paired Samples Statistics

S. No.	Statements	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Fair conduct of examinations (without leaving any scope of cheating) [Online]	3.461	720	1.9322	.0706
	Fair conduct of examinations [Offline]	4.975	720	1.8847	.0688
Pair 2	Use of social media platforms to motivate students (by making their assignments viewable to other students as well) [Online]	3.625	720	1.9900	.0790
Pair 3	Use of social media platforms to motivate students [Offline]	3.521	720	1.9261	.0765
	Fair assessment grades (in comparison to efforts put in) [Online]	3.323	720	1.9014	.0694
Pair 4	Fair assessment grades Offline]	3.761	720	1.7857	.0652
	Flexibility and mobility to attend interactive sessions [Online]	3.529	720	1.8947	.0692
Pair 5	Flexibility and mobility to attend interactive sessions [Offline]	3.765	720	1.8221	.0665
	Provision of study material for multiple subjects at single platform [Online]	3.672	720	1.8672	.0682
	Provision of study material for multiple subjects at single platform [Offline]	3.755	720	1.8222	.0665
Pair 6	Easy submission and checking of class assignments [Online]	3.768	720	1.8529	.0677
	Easy submission and checking of class assignments [Offline]	4.003	720	1.8667	.0682

Table 2.Preferences for the Future Modes of Teaching

Statements	Frequency	Percent	Valid Percent	Cumulative Percent
Blended teaching (mix of both the above methods)	329	45.7	47.9	47.9
Online teaching	117	16.3	15.6	63.5
Traditional method of teaching (offline)	274	38.0	36.5	100.0
Total	720	100.0	100.0	-

Table 3.Participation in Online Live Classes

Participation in Online Live Classes	Frequency	Percent	Valid Percent	Cumulative Percent
Actively	484	67.2	64.5	64.5
Not participate at all	23	3.2	7.1	71.6
Passively	213	29.6	28.4	100.0
Total	720	100.0	100.0	-

ISSN: 2349-2872
DOI: https://doi.org/10.24321/2349.2872.202501

Table 4.Frequency Distribution of Satisfaction with Online and Offline Learning

Dimension	Statement	Category	Count	%
Satisfaction - Online	Extent of satisfaction with the course outcomes in online mode of education.	P<E	328	45.6%
		P=E	235	32.6%
		P>E	157	21.8%
	I feel valued as a customer	P<E	315	43.8%
		P=E	230	31.9%
		P>E	175	24.3%
	I like the way teaching services are delivered	P<E	309	42.9%
		P=E	200	27.8%
		P>E	211	29.3%
Satisfaction - Offline	Extent of satisfaction with the course outcomes in offline mode of education.	P<E	278	38.6%
		P=E	215	29.9%
		P>E	227	31.5%
	I feel valued as a customer	P<E	282	39.2%
		P=E	220	30.6%
		P>E	218	30.3%
	I like the way teaching services are being delivered	P<E	290	40.3%
		P=E	211	29.3%
		P>E	219	30.4%

Table 5.Descriptive Statistics of Satisfaction with Online and Offline Learning

Statement	Mode of Education	Mean	N	Std. Deviation	Std. Error Mean
Overall Extent of satisfaction in this mode of education.	Online	3.332	720	1.8351	.0670
	Offline	4.011	720	1.9293	.0704

Discussion

The findings from this study provide valuable insights into students' perceptions and experiences with both online and offline teaching modes. The data highlights several trends regarding satisfaction, engagement, and preferences that can help guide improvements in educational delivery. As far as satisfaction with online vs. offline learning is concerned, the analysis indicates a clear preference for offline learning over online learning in terms of satisfaction with course outcomes and the overall teaching experience. Students reported higher satisfaction with offline learning, especially in terms of being valued as customers and achieving desired course outcomes. The mean satisfaction scores for offline learning were consistently higher than those for online education. This suggests that students are more content with the structure, interaction, and personal engagement that offline learning provides. Conversely, online learning showed more significant dissatisfaction, with students expressing frustration about their ability to engage deeply in the content, the perceived quality of feedback, and the overall delivery of the course.

As far as participation and engagement in online learning is concerned, 67.2% of students reported active participation in online live classes, 29.6% were passively engaged, and 3.2% did not participate at all. This highlights the varied levels of engagement in virtual classrooms. While online learning offers flexibility, it appears that it may struggle to foster active engagement, especially for students who may need more direct interaction or feel disconnected from the virtual environment. Institutions need to explore more interactive features in online platforms, such as real-time discussions, group activities, and personalised feedback, to encourage greater participation.

For preferences for future teaching modes, the majority of students (45.7%) expressed a preference for blended learning, a combination of online and offline instruction. This indicates that students recognise the benefits of both modes and are looking for a balanced approach that provides the flexibility of online learning with the personal interaction and structure of offline learning. A significant portion (38%) of students still preferred traditional offline instruction, while 16.3% favoured online-only learning. These findings

ISSN: 2349-2872
DOI: https://doi.org/ 10.24321/2349.2872.202501

suggest that hybrid teaching models are likely to be the most effective in meeting the diverse needs and preferences of students, providing the best of both worlds.

As far as challenges with online learning are concerned, the study also highlighted several challenges associated with online learning, particularly regarding feelings of isolation, difficulty in obtaining timely feedback, and lower perceived fairness in assessments. These challenges are compounded by technical issues such as limited access to technology for some students. Online education appears to struggle in replicating the social presence and immediate feedback that students often enjoy in traditional classrooms. As a result, it is crucial for institutions to invest in technology that enhances interaction, such as live chats, video feedback, and collaborative tools.

Recommendations

Based on the findings, the following suggestions can be made: Institutions should emphasise hybrid and blended learning models to integrate both online and offline instruction, providing students with the flexibility of digital learning while maintaining the engagement of traditional classroom settings. To enhance the online learning experience, improved engagement strategies should be implemented, incorporating interactive elements such as live discussions, group work, and real-time feedback to reduce feelings of isolation. Additionally, technological support must be strengthened, ensuring students have access to necessary digital resources, including devices, reliable internet, and technical assistance. Personalised feedback and assessment should also be prioritised, as students value detailed and timely responses from instructors. Features such as video feedback, interactive grading, and one-on-one consultations can bridge the gap between virtual and physical learning environments. Lastly, professional development for instructors is crucial in ensuring effective delivery of both online and offline education. Regular training on digital tools, engaging online teaching methods, and virtual classroom management will help educators adapt to evolving teaching models and enhance overall learning experiences.

Directions for Future Research

Future research on online and offline learning should consider several key areas. Demographic influence on learning preferences is essential for understanding how factors like socioeconomic status, access to technology, and geographic location shape students' perceptions, addressing equity concerns and improving educational accessibility. Additionally, instructor training and online learning quality play a crucial role, as the effectiveness of online education is closely tied to instructors' skills. Research could examine how varying levels of instructor training impact student engagement and satisfaction, helping institutions refine their teaching strategies. Furthermore, technological innovations in online education, such as virtual reality and AI, are transforming learning experiences. Investigating their impact on student engagement could provide insights into how cutting-edge tools enhance education. Another critical aspect is mental health and well-being in online learning, as the shift to digital platforms has raised concerns about student psychological well-being. Research in this area could help develop supportive environments that promote emotional health. Lastly, online assessment tools require further examination to assess their fairness, security, and reliability from students' perspectives, ensuring that online evaluations maintain integrity and effectiveness. Addressing these areas in future research will contribute to more inclusive, engaging, and effective online and blended learning environments.

Conclusion

This study reveals that while students have adapted to online learning during the COVID era, their preferences and satisfaction levels are higher for offline teaching. The data shows that online learning, although convenient, often lacks the engagement and social interaction that students value in traditional classrooms. The findings suggest that the future of education should focus on hybrid models that combine the flexibility of online learning with the personal interaction and structure of offline education. To meet the diverse needs of students, educational institutions should continuously adapt their teaching strategies, improve technology, and provide the necessary support to foster an engaging and effective learning environment for all students.

References

1. Kaur, K. and Kumar, K. (2013), "Knowledge Economy and Economic Growth in India: An Analysis" paper presented at International Conference on Human Development and Knowledge Economy, 19-20, Patiala: Punjabi University.
2. Gaur, R.R., Sangal, R. & Bagaria, G.P. (2009). Human Values and Professional Ethics First. New Delhi: Excel Books. https://atmiyauni.ac.in/public/file/HVPE%20Text%20Book.pdf
3. Chatterjee E, Desai S, Vanneman R. INDIAN PARADOX: RISING EDUCATION, DECLINING WOMENS'EMPLOYMENT. Demographic research. 2018 Mar 6;38:855.
4. Veeranna DG, Boraiah SS, Muniyappa R, Boraiah MK, Narayanappa DS. IoT Enabled Smart Village for Sustainable Development. InArtificial Intelligence for Smart Cities and Smart Villages: Advanced Technologies, Development, and Challenges 2022 Aug 14 (pp. 194-215). Bentham Science Publishers.

ISSN: 2349-2872
DOI: https://doi.org/10.24321/2349.2872.202501

5. Gulbarga I, Chetty SV, GanjiGatti JP. Explicit Study on the Implication of TQM in Higher Technical Education. International Journal of Mechanical Engineering Application Research. 2012;3(3):163-9.
6. Alam, D.S. (2024). A Study on Perception of Students towards Offline and Online Learning. International Journal of Multidisciplinary Research and Growth Evaluation. https://www.allmultidisciplinaryjournal.com/uploads/archives/20240928194015_E-24-102.1.pdf
7. Gupta S. Students' perception towards learning platforms-A comparative analysis of online and offline learning. International Journal of Engineering and Management Research. 2021;11(4):149-76.
8. B, D. ., SASANKA, L. ., & PRIYA, V. . (2020). Perception on Online Teaching and Classroom Teaching Among Students. The Journal of Contemporary Issues in Business and Government, 26(2), 1680–1694. Retrieved from https://cibgp.com/au/index.php/1323-6903/article/view/434
9. Jimaa S. Students' Rating: Is it a Measure of an Effective Teaching or Best Gauge of Learning?. Procedia-Social and Behavioral Sciences. 2013 Jul 4;83:30-4.
10. Enriquez MA. Students' Perceptions on the Effectiveness of the Use of Edmodo as a Supplementary Tool for Learning. InDLSU Research Congress 2014 Mar 6 (Vol. 2, No. 6, pp. 1-6).
11. Clyde A. Computers in school libraries: The Internet and Australian schools. Access. 1995;9(2):26-8.
12. Kurti, Erdelina. "Students' experiences on eMesimi; an e-learning system in University of Prishtina, Kosova." (2008). https://lnu.diva-portal.org/smash/get/diva2:205989/FULLTEXT01.pdf
13. Pirani, Z., & Mukundan, S. (2014). Accessibility Issues in Learning Management Systems for Learning Disabled: A Survey. Intelligence and Security Informatics. https://link.springer.com/chapter/10.1007/978-3-319-01778-5_26
14. Grieve R, Padgett CR, Moffitt RL. Assignments 2.0: The role of social presence and computer attitudes in student preferences for online versus offline marking. The Internet and Higher Education. 2016 Jan 1;28:8-16.
15. Dermo J. e-Assessment and the student learning experience: A survey of student perceptions of e-assessment. British Journal of Educational Technology. 2009 Mar;40(2):203-14.
16. Northcote MT, Arasaratnam-Smith LA. Community in online higher education: Challenges and opportunities. The Electronic Journal of e-Learning. 2017 May 1:15(2): 188-198
17. Hakim AR, Kodriyah L. Edmodo: An effective solution to blended learning for EFL learners. In1st National Conference on English Language Teaching (NACELT) 2015 (Vol. 12, No. 1, pp. 22-32).
18. Golding P, Jackson CA. Jamaican high school students satisfaction during the COVID-19 lockdown. Quality Assurance in Education. 2021 Oct 19;29(4):523-36.
19. Leong P. Role of social presence and cognitive absorption in online learning environments. Distance Education. 2011 May 1;32(1):5-28.
20. So HJ, Brush TA. Student perceptions of collaborative learning, social presence and satisfaction in a blended learning environment: Relationships and critical factors. Computers & education. 2008 Aug 1;51(1):318-36.
21. Riaz F, Mahmood SE, Begum T, Ahmad MT, Al-Shaikh AA, Ahmad A, Shati AA, Khan MS. Students' preferences and perceptions regarding online versus offline teaching and learning post-COVID-19 lockdown. Sustainability. 2023 Jan 28;15(3):2362.
22. Gloria AM, Uttal L. Conceptual considerations in moving from face-to-face to online teaching. InInternational Journal on E-Learning 2020 Apr (pp. 139-159). Association for the Advancement of Computing in Education (AACE).
23. Gherheș V, Stoian CE, Fărcașiu MA, Stanici M. E-learning vs. face-to-face learning: Analyzing students' preferences and behaviors. Sustainability. 2021 Apr 14;13(8):4381.
24. Istijanto I. The effects of perceived quality differences between the traditional classroom and online distance learning on student satisfaction: Evidence from COVID-19 pandemic in Indonesia. Quality Assurance in Education. 2021;29(4):477-90.
25. Kumar V, Verma A. An exploratory assessment of the educational practices during COVID-19. Quality Assurance in Education. 2021 Oct 19;29(4):373-92.

ISSN: 2349-2872
DOI: https://doi.org/ 10.24321/2349.2872.202501