

Post-Pandemic Learning: Insights from Indian College Students

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Abstract

The COVID-19 pandemic compelled educational institutions worldwide to explore online learning. Although it ensured the continuity of education, it brought many challenges, such as sudden transitions, an uncertain future, lack of motivation and reduced social support. Globally, many studies have examined the online learning experiences of students. This study investigates the experiences of Indian college students with online learning during COVID-19 using reflexive thematic analysis. This qualitative study follows a phenomenological epistemology. A total of 12 students (five males and seven females), aged 18–21 years, from a central university in New Delhi, participated in the research. Data were collected through semi-structured interviews and analysed using reflexive thematic analysis. Four overarching themes emerged from the data.

- i. Feeling disconnected from teachers and peers
- ii. Experiencing intellectual degradation
- iii. Lack of exposure to diversity
- iv. A silver lining—emergence of new possibilities

The study captured both positive and negative experiences related to online learning. By incorporating the perspectives of Indian college students, it contributes to the global discussion on online education during Covid-19. The findings can help enhance preparedness for future emergencies and contribute to designing better online education systems by improving digital infrastructure and using technology to facilitate human connections, motivation and engagement

Keywords: Qualitative research, thematic analysis, online learning, COVID-19, higher education

Introduction

COVID-19 introduced numerous economic, psychological and social challenges, including unemployment, job loss, reduced income, food insecurity, loneliness, mental distress, and diminished access to social support and healthcare services (Liu, et al., 2021; and Panneer, et al., 2022). These effects were more pronounced among vulnerable groups, such as older adults, low-income populations, migrant workers, refugees, ethnic minorities, children and students (Li,

et al., 2023). Notably, students were severely impacted during the pandemic. The United Nations Educational, Scientific and Cultural Organization (UNESCO) reported that approximately 1.5 billion students across 191 countries experienced disruptions due to school and college closures. In India, around 320 million students were affected (Sharma, 2020).

To ensure safety and continued learning, many educational institutions worldwide shifted to online platforms. Nevertheless, the transition from conventional in-person

instruction to remote learning posed numerous challenges, including difficulties in adaptation for both students and teachers, issues with Internet connectivity, unsuitable physical environments, mental health concerns, limited access to essential resources and a shortage of teaching materials (Chang and Fang, 2020; and Crawford, et al., 2020).

The digital divide in India was significant. According to a 2019 study, Internet connectivity in rural India was available to only 32% of the population aged above 12 years and 54% of the urban population. Additionally, only 11% of households owned computers like desktops, laptops and tablets [Nielsen & Internet and Mobile Association of India (IAMAI), 2019]. Students belonging to socially and economically vulnerable groups, such as Scheduled Tribes, Scheduled Castes and Other Backward Communities, females and rural dwellers, faced even greater obstacles (Goswami and Padhi, 2021). Subsequent research explored various aspects of online learning, such as its impact on students, teachers, parents and institutions; facilitators and barriers to online learning; and the adaptation of individual institutions (Mseleku, 2020; Li, et al., 2021; Dhawan, et al., 2020; Bao, 2020; Crawford, et al., 2020). Studies also examined students' preferences, perceptions and readiness for online learning (Muthuprasad, et al., 2021). Several studies adopted a phenomenological approach to capture firsthand student experiences with online learning in various countries, including China (Zhou, et al., 2021), Iran (Salahshouri, et al., 2022) and South Korea (Shim and Lee, 2020). In these studies, students reported stress and anxiety due to financial strains, changes in routine, educational delays, health concerns and future uncertainties. Common complaints included academic overload, lack of motivation, difficulty in self-regulation, disengagement and physical issues, such as eye irritation, headache and back pain. Positive experiences included supportive interactions with teachers and staff, media

richness, social presence and autonomy. Effective coping strategies involved spending time with family, friends and pets, engaging in active leisure and hobbies, viewing online learning as an opportunity and practicing faith (Zhou, et al., 2021; Salahshouri, et al., 2022; Shim and Lee, 2020; Baruth, et al., 2021; Khan, et al., 2021).

Although educational institutions have reopened and in-person classes have resumed, it remains crucial to understand college students' experiences with online education during COVID-19. Insights gained can help design improved online learning experiences in the post-pandemic era and enhance preparedness for future emergencies.

This study explores Indian college students' experiences with online learning during COVID-19 through reflexive thematic analysis, adopting a phenomenological approach to understand these experiences firsthand. Considering India's diverse and developing context, with one of the largest educational systems globally, it is vital to include an Indian perspective. The study aims to contribute both theoretically, by adding an Indian voice to the global discourse on online learning during COVID-19, and practically, by providing insights for designing post-COVID online learning strategies and preparing for future disruptions. The findings will be beneficial for institutions, educators and policymakers.

Methodology

Design

A qualitative interview design was employed to examine the experiences of students with online learning throughout the COVID-19 pandemic. Data were analysed using reflexive thematic analysis. Braun and Clarke (2006) define thematic analysis as "a method for identifying, analysing and reporting patterns (themes) within data". Reflexive thematic analysis is a technique that emphasises the qualitative paradigm and recognises

the researcher's active involvement in coding and generating themes (Braun and Clarke, 2006, 2013 and 2021). As reflexive thematic analysis is theoretically flexible, it was essential to establish a theoretical base. Therefore, this study adopted phenomenological epistemology (examining the subjective experiences of the research participants) with an inductive approach (grounded in data) to identify both semantic (explicit or surface-level themes) and latent themes (interpretative-level themes) (Braun and Clarke, 2021).

Participants and Recruitment

The researchers employed purposive sampling to select and enroll participants. Students from different departments were informed and invited to participate in the

study through their WhatsApp class groups. Only students pursuing bachelor's and master's degrees at Jamia Millia Islamia, who had attended online classes for at least two semesters, were eligible for participation. Students with irregular attendance or suffering from severe mental health issues were excluded.

Among the students who expressed interest, 15 were contacted and briefed about the study over a phone call. Of these, 12 participants (seven females and five males) volunteered to take part in the study. These participants, aged 18 to 21 years (Mean = 19), were interviewed about their overall experiences with online education during the pandemic. To ensure anonymity, their real names were changed. The participants' details are given in Table 1.

Table 1: Characteristics of Participants

S. No	Name	Gender	Region	Course
1.	Raghav	Male	Delhi	BA (Sociology)
2.	Fiza	Female	Kashmir	MA (Human Rights)
3.	Malik	Male	Delhi	BA (Economics)
4.	Nidhi	Female	Delhi	BA (Psychology)
5.	Preeti	Female	Delhi	BA (Islamic Studies)
6.	Asfiya	Female	Kashmir	BA (Psychology)
7.	Laiba	Female	Kerala	BA (Geography)
8.	Shagufta	Female	Uttar Pradesh	BA (Sociology)
9.	Atif	Male	Uttar Pradesh	MA (Sociology)
10.	Rajat	Male	Uttar Pradesh	BA (History)
11.	Amrita	Female	Delhi	BA (English)
12.	Lalit	Male	Delhi	BA (Sociology)

Data Collection

Before data collection, ethical approval was obtained from the Ethics Committee of the Faculty of Social Science, Jamia Millia Islamia. All 12 participants volunteered to take part in the study. A participant information sheet and consent form were emailed to them.

The researchers collaboratively designed the interview schedule through mutual

agreement, and data was collected from the participants using a semi-structured interview format. The Interview questions aimed to capture students' experiences with online learning during the pandemic, covering aspects like their overall experiences, daily routines, interactions with teachers and peers, learning, examinations and family support. The interview concluded with a question in the form of an imagined scenario, where students were asked to design an ideal

online learning experience for themselves.

Since the university was physically closed due to COVID-19 (between January and February 2022), interviews were conducted via telephone and recorded with the participants' permission. The interviews lasted 32 to 73 minutes (Mean = 52.41 minutes) and were transcribed verbatim in Google Docs.

Data Analysis

The data were analysed using reflexive thematic analysis, which emphasises the importance of reflexivity and the active role of the researcher in process of coding and theme generation. This study employed Braun and Clarke's (2006) thematic analysis approach, which involves six stages—data familiarisation, initial coding, theme identification, theme review, theme definition and naming, and report creation.

To facilitate collaboration among researchers, a shared folder titled 'Online Education Research' was created on Google Drive and all transcripts were uploaded. The researchers familiarised themselves with the data by reading and rereading the transcripts.

The next step was coding the data. A meeting was held among researchers to discuss their initial observations and decide on a plan of action. Coding was conducted online using the comment feature in Google Docs, with all researchers actively engaged in the process. After coding half of the data, a review meeting was organised to discuss the codes obtained. This meeting was attended by research scholars for the purpose of analyst triangulation. Insights generated during the discussion were used to refine the coding process further.

Once coding was completed, all codes from different transcripts were collected, compiled and printed. These codes were then organised and refined through a collaborative process. Finally, the researchers identified four themes that were reflective of the dataset.

Reflexivity

The researchers' critical reflection during the research process is known as 'reflexivity'. Reflexivity was maintained by keeping a research journal, maintaining an audit trail of the research process and writing analytical notes after each interview.

Results

We came up with four overarching themes to describe the patterned responses in the data.

- i. Feeling disconnected from teachers and peers
- ii. Experiencing intellectual degradation
- iii. Lack of exposure to diversity
- iv. A silver lining — emergence of new possibilities

Theme 1: Feeling Disconnected from Teachers and Peers

The students felt a sense of disconnection with teachers and peers during online classes. Their interactions with peers were formal and limited to essential communication. Additionally, they missed the encouragement, guidance and mentorship that teachers provided in offline settings.

Sub-theme 1: Missed personal bonds with peers

"I feel I have been disconnected a lot from my peers," said Malik. Like him, other participants also missed having a personal bond with their classmates. Instead, most students felt their interactions were formal and limited to necessary communication.

"Until you can see the facial expressions of others, you won't fully understand what is happening in the class," said Raghav. In the online mode, students often kept their cameras off for various reasons, such as limited data, the presence of family members, privacy concerns and self-esteem issues. This lack of visual interaction made

it difficult for students to see, interact and befriend one another. Raghav shared that he struggled to follow what was happening in the class because he could not see the facial expressions of his classmates.

In offline classes, students had ample opportunities to spend time together outside the classroom, engage in casual conversations and share personal experiences, which helped strengthen their bonds. In contrast, online classes lacked such opportunities. According to Raghav, interactions among students were minimal and mostly confined to online classes. He added, “In an offline setting, when a class ends and you are leaving the classroom, you discuss and share personal things as well. We can’t do that on Google Meet. No one interacts beyond the classroom.”

Some students missed shared activities, such as attending classes together, participating in group studies and engaging in class activities. “I tried making some friends, but I think we would have been better friends if we had shared experiences. This is what we lacked—shared experiences,” said Malik.

Nidhi emphasised that interaction, debates and discussions with classmates are essential to learning. She viewed her classmates not just as friends but also as co-learners, which she found missing in the online mode. “During offline classes, we used to do group studies. Sometimes, four to five of us would sit in the library and study. We used to discuss the examples given by our teachers and come up with our own. None of these things happened in online classes,” she said.

Sub-theme 2: Missed guidance and mentorship of teachers

“Although teachers were available 24×7, something was missing. We missed that special bond with the teacher,” said Laiba. Most students were appreciative and empathetic towards the role of teachers in the online mode. They acknowledged that

despite challenges, teachers gave their best, and some even went out of their way to help students. However, despite these efforts, students still felt that something was lacking. Laiba specifically missed the special bond she shared with teachers in the offline setting.

“We lacked the physical presence of the teacher. The mere presence of teachers used to motivate and assure us,” said Rajat.

“In an offline setting, when we met teachers outside the classroom, they would guide us and we could also share our problems with them. This didn’t happen in online classes,” said Preeti. In the offline mode, teachers not only taught but also encouraged students and helped clarify their doubts. Preeti recalled how her teachers would guide her beyond the classroom, while Rajat found the physical presence of teachers assuring and confidence-boosting.

Since teachers could not see students during online classes, they struggled to communicate, understand and connect with them effectively. It was difficult for them to observe and appreciate students’ individuality or identify those who needed extra attention.

Raghav pointed out that some of his classmates required special attention from teachers, which was nearly impossible in the online mode. “Some students require to be pushed, while others need more assistance. Not every student is the same. Teachers usually identify which student requires what kind of help, and provides support accordingly. This isn’t possible in an online setting,” he said.

Theme 2: Experiencing Intellectual Degradation

Many students struggled to focus and study in the online setting, experiencing a sense of intellectual degradation. They complained about losing their habit of studying, developing knowledge gaps and losing command over the subject matter.

Sub-theme 1: Lack of resources to participate in online classes

Many students were unable to join and actively participate in online classes due to significant digital disparities in both resources and skills. Even those who managed to attend faced varying levels of difficulty. In contrast, the offline mode had no such barriers, ensuring equal opportunities for all students to attend classes.

Most students accessed online classes through their mobile phones, which were convenient but offered limited participation opportunities. The small screen made it difficult to read books or view presentations shared by teachers. Additionally, only a small percentage of students could afford laptops. Lalit shared that he could use the laptop only when his older brother was not using it. "I have to use my phone. There is only one laptop, which my older brother mainly uses. I can use it only when he is not using it," he said.

Many students could not afford sufficient data packages or WiFi services, which affected their studies. Moreover, in households where multiple phones were using the Internet, slow speed created additional challenges. Shagufta cited insufficient data as a reason for missing some online classes. "I don't have WiFi at home. I use a 1.5 GB mobile daily data pack. If all data is consumed during classes, how will I study later or do anything else? Many students do not have sufficient data," she said.

Students also faced frequent power cuts and network problems. Furthermore, students from certain regions encountered more significant difficulties. For example, Asfiya from Kashmir experienced sudden Internet shutdowns. "There are times when there is complete Internet shutdown. It's not just the Internet—phone call services also stop working. It feels like we are completely cut off from the outside world," she said.

Sub-theme 2: Lack of conducive study environment

In the online mode, students attended classes from their homes. However, for some, the family environment was not conducive to studying. For example, Amrita's mother had schizophrenia, which made it difficult for her to participate in online classes. "My mother has schizophrenia. She is usually yelling, ranting or blabbering. Most of the time, it's hard to unmute and speak because she is talking in the background," she said.

Most parents did not take online education seriously and assumed students had an easier way out. However, Lalit expressed his frustration with the online setup and wished for the university to reopen as soon as possible. "When they see me attending classes from my bedroom, they say, 'You guys have an easy way out', but they don't know I hate this setup," he said.

Students also faced constant interruptions from family members talking, construction noise and vendors outside the homes. Preeti described her family as "background noise". Asfiya struggled to participate freely in online classes because her family often sat beside her during classes. "In Kashmir, it is freezing. There is a room called hamam with internal heating, and we mostly sit there. So, it's hard to turn on the camera and participate in class," she said.

Some students, especially females, had to help with household work while attending online classes. They juggled responsibilities, such as cleaning and cooking alongside their studies. Nidhi, for instance, had to attend classes from the kitchen while cooking. "Once, I unmuted myself to mark my attendance, and the pressure cooker whistled (laughs). I apologised to my teacher and said that I was in the kitchen," she shared.

Students missed the offline classroom setup, which helped them stay focused. Likewise, Amrita longed for the library, which provided

a quiet environment for studying. “The library was my favourite place to be during offline classes. I miss that quietness sometimes,” she reminisced.

Sub-theme 3: Lack of an outside push

In the offline mode, students had to wake up early and reach college on time, which instilled a sense of routine and discipline in them. However, the absence of this structure in the online setting made students lethargic. Many woke up late and frequently missed morning classes.

Malik shared that his routine has become disorganised and he lacked the motivation to wake up early. “My routine has gone haywire for a long time because, with online classes, we just have to sit in front of the screen and listen. There is no such push to wake up and go to college,” he said.

In the offline mode, supervised examinations required students to rely on their memory and understanding. For Malik, this created a positive pressure to study and motivated him to cover the entire syllabus. In contrast, online exams were unsupervised and open-book, which many students did not take seriously. “There wasn’t much exam pressure. I mean, the positive pressure that pushes you to study was lacking,” he said.

Additionally, some students were driven by a competitive spirit in offline classes. However, in the online mode, where cheating was easier, students lost the motivation to study harder and excel. Atif found it discouraging and unfair. “Earlier, there was invisible competition. We wanted to perform better than others, and that pushed us to study more. Now, anyone can copy and get good marks (pause). There is no such thing as merit anymore,” he said.

Theme 3: Missed Exposure to Diversity

The university campus is a diverse environment, bringing together people from various departments, genders, social classes, castes, regions, countries and religions. In

this setting, students have the opportunity to meet and befriend individuals from different backgrounds, fostering understanding and cooperation. Many students choose colleges in distant locations specifically to gain cultural experiences beyond their own. However, this valuable experience was lost in the online learning environment.

Laiba, who recently shifted from Kerala to Delhi, shared that she wanted to learn Hindi and was eager to meet and befriend people from North India. “Many students from Kerala enroll in Jamia Millia Islamia or Delhi University because they seek more exposure, want to study new languages and meet new people. That is the core reason why we are here,” she said.

Asfiya, from Kashmir, echoed a similar sentiment. “That is the point of coming to Delhi...especially because many students from far-off places come here to study. I have met people from different cultures at the university,” she said. She emphasised that many students from her hometown aspired to study in Delhi as it exposed them to diverse cultures and people.

In the online mode, none of this was possible. Due to familiarity and the limitation of only interacting with people living nearby, friendships was largely confined to geographical areas. Amrita observed that students from different regions formed separate groups in her class. “Most people from Kashmir have their own group, while those from Uttar Pradesh and Bihar have theirs. People from the South also have their own group. That happened because, in the end, you could only find people who were already familiar with you,” she remarked.

Theme 4: A Silver Lining—Emergence of New Possibilities

Although students faced many challenges in online education, it acted as a safe alternative for providing education during the pandemic. They shared some benefits of online education, which are categorised as follows.

Sub-theme 1: Diminishes the barrier of time and space

One of the most important benefits of the online mode is that it diminishes the barriers of time and space. Rajat felt that online learning allowed anyone to study anything from anywhere. “While sitting in your living room, you can have the luxury of being taught from London,” he quipped.

In the offline mode, timetables often included gaps between classes. While some students considered this waiting period as a waste of time, the online mode allowed them to use this time constructively. For example, Fiza shared that during offline classes, she had to wait 2–3 hours for her last class, which left her feeling drained. “Late classes make you tired. I had a class at 3 pm, and there used to be a long break before it. Every day, I had to wait for 2–3 hours. It was a waste of time for those who didn’t live in the hostel. Since I lived in a paying guest accommodation, I couldn’t go back in between,” she explained.

Sub-theme 2: Learning extended beyond the classroom

In the online mode, teachers and students could utilise digital resources, such as audio, video or online books to enhance learning. Malik shared that their learning extended beyond the classroom. Students also noted that learning management systems like Google Classroom made resource sharing and assignment submission more convenient. They even suggested integrating these tools into offline learning. “We broke free from the restraints that confined us in offline learning. Now, we can incorporate digital resources into our teaching–learning process,” he said.

The online mode also gave students greater control over their learning. Some enrolled in online courses and attended webinars. For example, Preeti, who always wanted to learn English, enrolled in a live online course offered by an international organisation based in Turkey. She is now teaching the same course to students worldwide. “I first

learned English from them, and now I’m teaching it to others. My students are from Iran, Turkey, America, London and India. It’s great that I can interact with people from around the world,” she said.

Students also pointed out the growing trend of teachers uploading their lectures online. Atif listed some of his favourite YouTube channels and shared his enthusiasm for watching lecture series. “Many teachers and professors worldwide are uploading their lectures on YouTube. I can watch them for hours (laughs). You can learn anything now,” he grinned.

Discussion

This study examined the online learning experiences of Indian college students during the COVID-19 pandemic using reflexive thematic analysis. The analysis revealed four overarching themes that describe the patterned responses in the data: (i) Feeling disconnected from teachers and peers; (ii) Experiencing intellectual degradation; (iii) Lack of exposure to diversity; and (iv) A silver lining—emergence of new possibilities.

These themes hold particular significance in light of the National Education Policy 2020 (NEP 2020), which envisions the integration of technology and blended learning in higher education. NEP 2020 emphasises that extensive use of technology should retain the benefits of face-to-face interaction—a balance that the findings suggest is crucial (Ghosh, 2023). Furthermore, the University Grants Commission’s (UGC) subsequent guidelines permitting up to 40% online teaching mode in regular degree programmes reflect a shift towards blended learning approaches (Gohain, 2021). This policy framework supports what Mukhopadhyay (2023) describes as “a blending of carefully chosen learning tactics from face-to-face and technology-mediated learning domains to achieve expected learning outcomes”. While students’ experiences during emergency remote teaching differ from planned blended learning, the findings offer valuable insights

for implementing these policy directives effectively.

The first theme, 'Feeling disconnected from teachers and peers', highlights students' sense of disconnection and their strong desire to connect with teachers and peers. It underscores the basic human need for belonging and the formation of strong social bonds, aligning with the self-determination theory's emphasis on relatedness as a fundamental psychological need in learning environments (Willems and Lewalter, 2012). In physical classrooms, students fulfill this need by building friendships and seeking guidance from teachers. This is especially important for adolescents as this stage is characterised by an increased need for social connection and acceptance from peers (Andrews, et al., 2020). Positive relationships with teachers also enhance students' emotional and social skills, aiding in their overall development (Pianta, et al., 2012). However, online learning significantly impacted these relationships, thwarting students' need to belong and negatively affecting their socio-emotional development (Gadassi Polack, et al., 2021).

The SERU-India COVID-19 survey reported that the lack of peer interaction was the most significant obstacle faced by 6,425 students from 38 Indian universities during the pandemic (O. P. Jindal Global University, et al., 2022). Students also sought support and empathy from teachers, as evidenced by thematic analysis of a social media platform videos (Literat, 2021) and global studies on online learning experiences (Tackie, 2022). The absence of intimacy-facilitating behaviours, such as eye contact, facial expressions, non-verbal communication, physical closeness, informal interaction and humor (Tackie, 2022), further contributed to the disconnection felt by students.

The second theme, 'Experiencing intellectual degradation', reflected students' difficulty in focusing on studies and feeling intellectually degraded due to the digital divide, lack of a conducive study environment, and the absence of external motivators like

daily routines, supervised exams and competitive spirit. From a self-regulated learning perspective (Zimmerman, 2002), students' reports of degraded learning can be attributed to the sudden shift from externally regulated learning—structured by institutional routines, supervised examinations and a competitive academic environment—to a setting that required high levels of self-regulation, a skill many had not yet developed. This abrupt transition from structured to self-directed learning, without adequate scaffolding or preparation, made it difficult for students to effectively manage their learning process.

The digital divide was evident from disparities in Internet access, with penetration rates of 87% in developed countries, 47% in developing countries and 19% in least developed countries (International Telecommunication Union, 2019). In India, a notable gender gap in Internet usage was observed, with over 57% of men having access, compared to just one-third (33.3%) of women (International Institute for Population Sciences and ICF, 2022). The lack of digital infrastructure and persistent societal inequalities disproportionately affected students from lower socioeconomic backgrounds, marginalised communities, rural areas and females (Goswami and Padhi, 2021).

In physical classrooms, students follow a structured daily routine of attending classes, taking supervised exams and engaging in a healthy competitive environment. However, in the online setting, slow Internet connectivity, ineffective instructional practices, and the overlap between home and learning environment made it difficult for students to stay motivated and engaged (Ndambakuwa and Brand, 2020; and Teodorescu, et al., 2021). A comprehensive review analysing data from 42 studies across 15 countries revealed that educational advancement significantly decelerated during the COVID-19 pandemic. This slowdown in learning was particularly severe for students from economically disadvantaged backgrounds

(Li, et al., 2023). In India, university students reported a learning loss of 40–60% during the COVID-19 pandemic (TeamLease Edtech, 2021).

The third theme, 'Lack of exposure to diversity', emphasises students' desire to explore people and cultures other than their own. India is a land of diverse cultures, religions, languages, traditions and customs, but is well-known for its unity. This theme connects directly to the contact theory (Allport, 1954) and contemporary research on intercultural learning in higher education. Research in the area of inter-group relations identified an inter-group strategy called 'co-existence', which is unique to the culture of India. In coexistence, people from different cultures not only exist side by side, but are open and receptive to other cultures (Mishra, Bano & Tripathi, 2017). This desire for cultural exchange was expressed by the participating students. For them, university campuses provide a safe space to interact and befriend people from different cultures. Interacting with individuals from varied backgrounds offers multiple benefits. It helps promote friendships across different groups and reduces biases and unfair treatment (Killen, et al., 2021). Such exposure also contributes to greater social cohesion and equality in diverse societies (Allen, 1992). Moreover, it enhances students' career prospects by developing their skills in collaborating with people from different walks of life (Alger, 1997). However, during COVID-19 students could not experience diversity in online classes, which limited their interaction with people from their own background and culture.

Online learning was entirely bleak; it also opened up new possibilities, encapsulated in the fourth theme 'A silver Lining—emergence of new possibilities'. It enabled the continuation of the learning process beyond lockdown, and fostered the acceptance and innovation of online learning. By eliminating the barriers of time and space, it extended learning beyond the traditional classroom setting. The benefits of online

learning include flexibility regarding time and location, access to a broader audience, a wider range of courses and content for self-directed learning, affordability, and minimal use of travel resources (Mukhtar, et al., 2020; Dhawan, 2020).

The fourth theme aligns with the transformative learning theory (Mezirow, 1991), suggesting how disruption can lead to new perspectives and adaptations in learning approaches. While students faced numerous challenges during online education, they also recognised emerging opportunities that could enhance future educational practices. This finding connects with NEP 2020's vision for technology integration in education and the UGC's framework for blended learning implementation.

Policy Implications

The findings have significant implications for designing effective blended learning experiences and improving preparedness for future emergencies in Indian higher education. The four themes identified in the research provide a framework for developing comprehensive policy recommendations that can balance educational quality with technological innovation.

Drawing from the first theme of disconnection from teachers and peers, a key policy consideration emerges around preserving and enhancing social connections in blended learning environments. Social connections play a significant role in adolescent development and increase students' emotional, cognitive and behavioural engagement (Furrer and Skinner, 2003). Therefore, while adopting blended models, policies should mandate substantial physical classes to foster meaningful bonds between students and teachers. When face-to-face interaction is not possible, policies can emphasise strengthening social presence—the perception that real human beings are involved in the interaction (Tu and McIssac, 2002). This can be achieved through structured online communities, regular

synchronous sessions, formal mentoring systems and mixed-mode collaborative activities. Such measures ensure that the social fabric of education remains strong even in technology-mediated environments.

The second theme of intellectual degradation highlights the need for policies that actively prevent learning loss and sustain student engagement. The findings reveal significant challenges related to motivation and academic progress, particularly among vulnerable student populations. To address these concerns, comprehensive policies should establish regular monitoring systems for identifying learning gaps and mandate engaging teaching approaches that incorporate interactive media and gamified learning. The integration of emerging technologies like Artificial Intelligence (AI), Augmented Reality (AR) and Virtual Reality (VR) can enhance learning experiences, while clear infrastructure standards can help bridge the digital divide. Policies must ensure equitable access to digital resources and learning management systems, aligning with NEP 2020's vision while providing practical solutions to the challenges identified in the study.

Building on the third theme—lack of exposure to diversity—blended learning offers unique opportunities to expand educational access and promote cultural exchange. This aligns with Goal 4 of the United Nations' Sustainable Development Goals, which advocates for inclusive and equitable education (United Nations, 2022). Policies can leverage technology to facilitate virtual cultural exchange programmes and foster cross-institutional collaboration. Additionally, integrating multicultural curriculum elements can support the development of 'virtual global citizens' while preserving and promoting India's cultural heritage through digital platforms. These initiatives ensure that technological integration enhances rather than diminishes cultural learning opportunities.

The fourth theme—the emergence of new possibilities—supports the need for policies

that balance innovation with stability. Using the UGC's IPSIT framework (Identify resources and activities, Provide resources and announce activities, Support and provide scaffolding, Identify learning gaps and provide feedback, Test) as a foundation, policies should focus on comprehensive teacher training in blended pedagogy and establishing quality assurance mechanisms for online components (Sancheti, 2023). The systematic integration of traditional and digital teaching methods, coupled with structured student support systems and emergency preparedness protocols, can ensure the sustainable implementation of blended learning models.

Together, these recommendations help create what Garrison and Vaughan (2007) describe as a "thoughtful fusion" of learning experiences. This study provides valuable insights from Indian students' perspectives, enriching the global discourse on educational transformation. By carefully considering social, academic, cultural and technological factors, these recommendations provide a roadmap for developing resilient and effective blended learning environments in Indian higher education.

Limitations and Future Directions

While the study provides valuable insights into students' experiences with online learning, several limitations warrant consideration. Firstly, the context was unique—the transition to online learning was abrupt and necessitated by COVID-19 rather than being part of a planned educational strategy. This emergency response differs significantly from thoughtfully designed blended learning environments. Secondly, the sample primarily consisted of students from social science departments at a single central university, which may not fully represent the experiences of students across different disciplines, institutions or geographical regions within India.

These limitations highlight several important directions for future research. As institutions

transition to planned blended learning approaches, future studies should examine how students' experiences evolve in these more structured environments, particularly investigating the effectiveness of different blended learning models (hybrid classes, flipped classroom, rotation model, etc.) across disciplines. Comparative studies between STEM fields, humanities and professional courses could contribute to the development of discipline-specific guidelines for integrating online and offline components. Additionally, future research should expand beyond student perspectives to include teachers' experiences with blended methods, their professional development needs and the institutional challenges of implementing blended learning policies. Longitudinal studies tracking the evolution of blended learning practices, as well as research assessing the effectiveness of policy interventions, particularly those focussed on social connection, learning loss prevention and technology integration, would provide valuable evidence for refining policies in Indian higher education.

Conclusion

The study employed reflexive thematic analysis to explore the online learning experiences of Indian college students during the COVID-19 pandemic, revealing four significant themes—feeling disconnected from teachers and peers, experiencing intellectual degradation, lack of exposure to diversity and discovery of new possibilities. These findings provide crucial insights for the future of education in India, particularly as institutions move towards blended learning models.

The themes illuminate fundamental aspects of effective learning environments. The prominence of social disconnection and reduced cultural exposure emphasises that education is inherently a social process, requiring thoughtful integration of technology that enhances rather than

diminishes human connections. The intellectual degradation theme highlights critical infrastructure and motivational challenges that must be addressed through systematic policy interventions. However, the emergence of new possibilities suggests that thoughtfully designed blended learning approaches could potentially democratise education while maintaining quality.

This study makes significant contributions both theoretically and practically. Theoretically, it adds Indian students' voices to the global discourse on educational transformation, providing insights from one of the world's largest and most diverse educational systems. Practically, the findings inform the development of blended learning policies aligned with NEP 2020's vision, offering concrete recommendations for creating resilient educational systems that balance technological innovation with human connection. As higher education continues to evolve, these insights can guide the development of more effective, inclusive and adaptable learning environments that preserve the best aspects of traditional education while leveraging the opportunities presented by digital transformation.

Declarations

The researchers declare no conflicts of interest pertaining to this study's content. The Institutional Ethical Committee for Social Sciences at Jamia Millia Islamia, New Delhi, granted ethical approval for this research. All participants provided their consent prior to involvement. Upon request, the corresponding authors can provide access to the data collected and analysed during this investigation.

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