

# Exploring Perceptions and Experiences of Online Learning in Bangladesh: A Study during the COVID-19 Pandemic

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## Abstract

The COVID-19 pandemic has necessitated a rapid shift to online education globally, including in Bangladesh. This study aims to explore the perceptions and experiences of university students in Bangladesh regarding online education during the pandemic, with a focus on their use of internet tools in virtual classrooms. Guided by the Imagined Affordance theory, this qualitative research examines the interplay between students and technology in the online learning process. The findings reveal that students faced challenges related to unfamiliarity with online platforms, technological limitations, affordability and accessibility issues, technological literacy gaps, and distractions in the home environment. These challenges highlight the need for effective support systems, robust technological solutions, bridging the digital divide, enhancing digital literacy, and creating supportive home environments. The study contributes to the existing literature by addressing research gaps specific to Bangladesh and provides insights to inform policymakers, educators, and institutions on enhancing the quality and inclusivity of online education. By overcoming these challenges, a resilient and effective education system can be established, paving the way for a more accessible and high-quality online learning experience.

## Keywords

Online Learning, Covid-19, Imagined Affordance, Students' Perception

## 1. Introduction

The global outbreak of the COVID-19 pandemic has reshaped the landscape of education, forcing educational institutions worldwide to adapt swiftly to ensure continuity of learning (Abuhammad, 2020). As traditional face-to-face class-

room settings became unfeasible, educators and students embarked on a transformative journey into the realm of online education (Olasile & Emrah, 2020). This paradigm shift, although necessary, has brought about numerous challenges and opportunities, particularly in countries like Bangladesh (Al-Amin et al., 2021).

In Bangladesh, the closure of educational institutions since the onset of the pandemic has compelled students and teachers to embrace online education as an alternative mode of learning (Begum et al., 2020). However, this sudden transition to online platforms has not been without its difficulties. Students, accustomed to traditional classroom environments, have faced unprecedented hurdles in adjusting to the virtual realm. Access to reliable internet connectivity, availability of technological devices, and familiarity with online learning tools emerged as critical factors impacting students' learning experiences (Shrestha et al., 2022; Alam, 2020). To gain a comprehensive understanding of these challenges, it is imperative to explore students' perceptions and experiences in online education. This research endeavors to delve into the intricate nuances of online learning by examining how university students in Bangladesh navigate the use of internet tools in their virtual classrooms. By utilizing the Imagined Affordance theory, which explores how individuals perceive and utilize technological tools (Day & Lloyd, 2007), this study aims to shed light on the intricate interplay between students and online learning environments.

The rationale behind this study lies in the limited existing research that specifically addresses the perceptions and experiences of students in online education within the context of Bangladesh (Al-Amin et al., 2021). While some studies have touched upon this subject, they either lack comprehensive exploration or fail to capture the specific nuances and challenges unique to this country (Alam, 2020). Hence, it is crucial to conduct an in-depth investigation into the experiences of students in online classes, taking into account factors, such as affordability, accessibility, technological readiness, and pedagogical support.

Understanding the challenges faced by students in this online learning landscape is essential for designing effective strategies that enhance the quality and effectiveness of online education (Nguyen, 2015). By identifying the barriers and exploring potential solutions, educators, policymakers, and institutions can work together to address the shortcomings and provide students with a conducive learning environment (Shrestha et al., 2022). Therefore, this study aims to explore the perceptions and experiences of university students in Bangladesh regarding online education during the COVID-19 pandemic. By employing the Imagined Affordance theory, this research seeks to unravel the intricate dynamics between students and internet tools in virtual classrooms. The ultimate goal is to improve the online learning experience, overcome challenges, and pave the way for a resilient and effective education system in Bangladesh and beyond. The findings of this study are expected to contribute significantly to the existing literature on online education, particularly in the context of Bangladesh (Al-Amin

et al., 2021). Additionally, the insights gained will inform policymakers and educators on how to optimize the online learning experience and bridge the digital divide. As the world grapples with the ongoing uncertainties brought about by the pandemic, this research aims to serve as a stepping stone towards fostering inclusive, accessible, and high-quality online education.

## 2. Literature Review

Online learning has garnered significant attention in recent years, with a multitude of studies focusing on various aspects of this educational approach. Xu & Ebojoh (2007) conducted a case study to evaluate the effectiveness of online learning programs and emphasized the need to utilize technological tools for enhanced learning experiences. Yang & Cornelius (2004) explored students' perceptions of online education and identified both positive and negative experiences. Rahman et al. (2020) highlighted the potential of IoT technologies in disease surveillance, while Bozkurt & Sharma (2020) emphasized the importance of creating an active learning environment in online settings. Shrestha et al. (2022) examined the experiences of teachers and students during the pandemic, emphasizing challenges such as poor internet connectivity. Sarkar et al. (2021) highlighted the disparities between rural and urban students in online education. Al-Senaïdi et al. (2009) identified barriers to implementing ICTs in higher education, and Alam (2020) discussed challenges faced by students in online classrooms. Wallace (2003) highlighted the preference for face-to-face education among higher education students, and Abuhammad (2020) explored barriers to online learning during the COVID-19 outbreak.

This literature review identifies two research gaps in the existing literature on online education. Firstly, there is a need to examine the differences in experiences between rural and urban students in utilizing internet tools for online classes, addressing the digital divide and ensuring equitable access. Secondly, the study aims to explore the alignment between students' expectations and the technological capabilities of online learning platforms, enhancing satisfaction and engagement. By addressing these research gaps, this study contributes to the advancement of effective and inclusive online education practices.

## 3. Conceptual Framing

The conceptual framework of this study is guided by the imagined affordance theory, which takes into account the interactions between users, technology, and the learning context. Affordance theories, inspired by J. Gibson's work (Gibson, 2001), provide valuable insights into how the features of current technology interact with learners and teachers. The notion of imagined affordances, as described by Nagy & Neff (2015), emphasizes the connections between users' perceptions, attitudes, expectations, and the materiality and functionality of technologies.

In the context of internet technologies, the term affordance gains significance.

Gibson's perspective (Gibson, 2001) on the interaction between users and tools highlights the prospects and boundaries that emerge. Instead of focusing solely on making affordances more transparent, the attention has shifted towards understanding how users actually perceive and utilize these tools. Opportunities and constraints, viewed as complementary elements, play a vital role in facilitating learning.

The present study explores the challenges and opportunities of using internet technologies in online learning from the perspective of students. The imagined affordance theory is employed to gain insights into the interaction between students and technology during the online learning process. Although students face constraints such as limited technological knowledge, poor network connections, technological capacities, load shedding, and unfavorable home environments, online learning offers the flexibility of learning from anywhere. Additionally, the cost of online learning is generally lower compared to physical learning settings.

The imagined affordance theory provides a framework for understanding how students adapt to new internet technologies and the difficulties they encounter in using these technologies. By considering the interplay of opportunities and constraints, this theory is well-suited for examining the technological aspects of online learning. The conceptual framework of this study integrates the imagined affordance theory to explore the opportunities and constraints associated with the technologies employed in online learning, shedding light on the dynamics of human-technology interaction in the learning process.

#### 4. Research Design

This study employed a qualitative research approach to gather insightful and in-depth perceptions of learners' experiences using internet technologies during online learning. Qualitative research is particularly suited for this study as it allows for a deep exploration of the phenomenon and provides valuable insights into the participants' perspectives. The study utilized various data collection methods, including document analysis, interviews, and observation.

The participants in this study were graduate students from Rajshahi University in Bangladesh. Rajshahi University was chosen as the study area due to its accessibility and the availability of participants who had experienced online classes during the COVID-19 pandemic. A total of 40 students were selected as the sample for interviews, providing a diverse range of perspectives. The participants were fully informed about the objectives of the research, and their voluntary participation was ensured. They were assured that their responses would be treated as private and used solely for academic purposes. The researcher conducted individual interviews with the participants to gather data. While efforts were made to encourage honest and comprehensive responses, some participants may have been hesitant to provide certain information. A questionnaire was developed to systematically collect primary data. The questionnaire consisted of open-ended questions that allowed participants to express their perceptions and experiences

related to internet tools used in online classes. The average duration of each interview was approximately 15 minutes. The researcher also conducted informal interviews with well-known personalities in the field to gather additional information and insights.

Data analysis is a crucial step in qualitative research. The collected data, including interviews, observations, and archival materials, were examined for similarities and differences. The responses were organized around the research questions, which focused on the experiences of students and the factors influencing those experiences. Microsoft Office Word and Microsoft Office Excel were utilized to analyze and tabulate the data. The data analysis process involved identifying themes, patterns, and recurring ideas to derive meaningful insights.

Before collecting data, the researcher obtained ethical approval for the study. Participants were fully informed about the research objectives, and their consent to participate was obtained. They were assured that their identities would remain confidential and that the information provided would be used solely for academic research purposes. To ensure the reliability of the data, care and cautious steps were taken during data collection. The researcher established a congenial relationship with the participants to create a comfortable environment for open and honest responses. The aims and objectives of the study were clearly explained to each respondent to ensure their understanding and cooperation. However, variations in attitudes and preferences among participants, as well as potential biases, may affect the reliability of the data. The sources of data for this study included primary and secondary sources. Primary data were collected through formal questionnaire surveys and informal interviews with participants. Secondary data were collected from the central library of Rajshahi University, online and offline resources, Google, Google Scholar, journals, reports, research papers, books, articles, and other published and unpublished documents from government and non-government organizations.

Overall, the qualitative methodology employed in this study aimed to provide a comprehensive understanding of graduate students' experiences with internet tools in online classes. By utilizing multiple data collection methods and ensuring ethical considerations, the study aimed to gather reliable and meaningful data for analysis and interpretation.

## **5. Findings**

### **5.1. Unfamiliarity and Transition**

The shift to online classes was a novel experience for many students in Bangladesh. They encountered a new educational landscape, unfamiliar with the concept of virtual classrooms. As Student A reflected, "I had never heard of online classes before the pandemic. It was a whole new concept for me". This finding highlights the need for effective support systems and guidance during the transition to online learning.

## 5.2. Perceptions and Attitudes

Students exhibited diverse perceptions and attitudes towards online education. While some students found online classes to be a source of inspiration, offering glimpses of educational possibilities in developed countries, others clung to the traditional face-to-face model. Student B expressed this contrasting sentiment, stating, “Somehow, online classes made me feel connected to the larger world. It gave me a glimpse of what education could be like in developed countries”. This finding emphasizes the importance of addressing individual preferences and concerns in designing online learning experiences.

## 5.3. Technological Challenges

Technological limitations presented significant hurdles for students during online learning. Platform capacity issues resulted in missed classes, as Student C lamented, “I often missed classes because the online platform couldn’t accommodate all the students. It was frustrating”. Inadequate network infrastructure and frequent power outages further exacerbated the difficulties faced by students. These findings underscore the urgent need for robust technological solutions and infrastructure to ensure seamless access to online education.

## 5.4. Accessibility and Affordability

Financial barriers posed substantial challenges for students from disadvantaged backgrounds. Lack of affordability prevented many students from acquiring the necessary devices and data packages for online classes. Student D’s comment reflects this struggle, “I couldn’t afford a computer or smartphone for online classes. It was a major setback for me”. To address this issue, interventions are required to bridge the digital divide, ensuring equitable access to devices and affordable internet connectivity.

## 5.5. Technological Literacy and Skills Gap

A considerable skills gap in technological literacy was observed among students and teachers. Students faced difficulties in effectively navigating online platforms, as Student E acknowledged, “I struggled with using the online platforms. It was all new to me, and I didn’t know how to navigate them effectively”. Enhancing digital literacy through targeted training programs becomes imperative to empower students and educators to harness the full potential of online learning.

## 5.6. Home Environment and Distractions

The home environment played a pivotal role in students’ engagement with online learning. Many students lacked a conducive study environment, experiencing distractions that hindered their concentration. Student F articulated this challenge, stating, “It was hard to concentrate during online classes with all the noise at home. I didn’t have a quiet space to study”. Ensuring a supportive home

environment with minimal distractions can significantly enhance students' learning experience.

## 6. Discussions

The study aimed to explore the challenges and opportunities of using internet technologies in online learning from the perspective of students. To understand the interaction between humans and technology in the online learning process, the study employed the Imagined Affordance Theory. This theory focuses on how users' perceptions, attitudes, and expectations influence the use of technology in online learning, specifically in relation to affordances for student learning. The findings revealed that students had both positive and negative perceptions regarding the use of internet technologies in online learning. One plausible reason for the negative perception among respondents could be their lack of familiarity with online learning platforms such as Zoom, Google Meet, and Google Classroom. This finding aligns with a study by Rouf et al. (2022), which found that many students had a negative perception toward online learning due to their limited knowledge of operating these platforms.

Qualitative data analysis indicated that only few students could attend an online class using Zoom. Consequently, the majority of respondents were unable to fully participate in online classes. This highlights the challenge of technical knowledge among students, as they need to be equipped with the skills to install apps, operate digital devices, navigate platforms, mute and unmute in class, upload materials, and record classes. It is important to note that both teachers and students were unfamiliar with these technologies, as they had no prior experience with online classes. Their familiarity with these technologies only began during the pandemic when online classes were initiated. The study also identified poor network connectivity as a major challenge in online learning. This finding suggests that a reliable and stable network plays a crucial role in the success of online learning. Additionally, some respondents faced limited access to the internet, aligning with the findings of Al-Amin et al. (2021) and Baticulon et al. (2021), which emphasized the significance of accessible and reliable internet connection in online classes. Furthermore, the study identified the lack of devices such as computers, smartphones, and tablets as a common challenge in online learning. High data costs also hindered the use of internet technology in online classes. Therefore, the study concludes that accessing web-based technologies is not affordable, which significantly impacts online learning.

## 7. Conclusion

The findings of this study shed light on the challenges and opportunities associated with the use of internet technologies in online learning from the perspective of students. The study revealed that students had varying perceptions regarding the use of internet technologies, with many lacking familiarity with online learning platforms. Technical knowledge gaps, poor network connectivity,



limited internet access, and the high cost of devices and data packages were identified as significant challenges. Despite these challenges, online learning offers the advantage of flexibility, allowing students to learn from the comfort of their homes. As long as students have access to the necessary devices, reliable internet connection, affordable data packages, and a stable power supply, learning can take place from anywhere. Furthermore, online platforms have been used in such a way that they simulate a classroom environment, enabling students to actively participate in classes remotely. Based on the findings of this qualitative study, the following recommendations are proposed: 1) The government and the Ministry of Higher Education should encourage and promote the use of internet technologies in teaching and learning, 2) Further research should be conducted to explore the perceptions of students from different universities within specific districts regarding the utility and limitations of internet technologies in online learning. Like any research study, this study has its limitations. Time and resource constraints were significant factors that influenced the scope of the study. The lack of available data on the online education system in the study area and the unavailability of satellite imagery, along with the high cost of digital copies, were limitations faced during the research process.

### Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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