International Journal of Scientific Research and Engineering Development-– Volume 9 Issue 2, Mar-Apr 2026
Available at www.ijsred.com

RESEARCH ARTICLE OPEN ACCESS

Exploring Learners' Perception on Online Teaching Practices in Higher Education across Koraput District of Odisha

Anupama Mishra*, Dr. Manoranjan Pradhan**

*Assistant Professor of Educational studies (TE), Department of Teacher Education, Vikram Dev University, Jeypore, Koraput, Odisha.

Email: sina707729@gmail.com

**Assistant Professor & Head, Department of Teacher Education, Vikram Dev University, Jeypore, Koraput, Odisha.

Email: manoranjan.pradhan78@gmail.com

----------**********----------

ABSTRACT

The rapid shift to online teaching during and after the COVID-19 pandemic has reshaped higher education, prompting critical reflection on its effectiveness in semi-rural contexts such as Koraput District, Odisha. This study investigates how undergraduate students in Koraput District, perceive online teaching, with particular attention to Bhairaba Degree Mahavidyalaya, Borigumma and Vikram Dev University, Jeypore. Using a descriptive cross-sectional survey, 60 students with prior exposure to online learning during or after the COVID-19 pandemic were purposively selected. Data were gathered through a structured questionnaire and analysed, applying both descriptive and inferential techniques. Results indicate that while students appreciated the flexibility of online classes, they encountered persistent barriers such as unstable internet, inadequate access to digital devices, and diminished interaction with faculty. Differences in perception were influenced by gender, academic discipline, and device type. Overall, the study underscores both the promise and constraints of online education in semi-rural settings, highlighting the urgent need for infrastructural improvements and digital capacity-building to strengthen higher education delivery.

KEY WORDS:

Perception, COVID-19 pandemic, online teaching and higher education.

----------**********----------

INTRODUCTION:

The 21st century has transformed education through digital technologies, reshaping how teachers and students interact. This shift accelerated during the COVID-19 pandemic, when online teaching became the primary alternative to physical classrooms. While urban institutions adapted quickly, rural and semi-rural regions faced major challenges due to poor internet, limited devices, and infrastructural gaps.

In India, the transition to online education exposed deep socio-economic disparities and a sharp digital divide. Government platforms such as DIKSHA and SWAYAM were introduced, but their reach was limited in remote areas. Many students lacked smartphones, laptops, or even stable electricity, making participation inconsistent. These barriers were particularly severe in rural and tribal regions, where poverty and weak infrastructure restricted access to digital learning.

Koraput District illustrates these challenges vividly. Families often cannot afford smartphones or data plans, and connectivity remains unreliable, leading to educational exclusion. Gender and socio-economic factors further shape student experiences: girls face household responsibilities, early marriage, and limited access to shared devices, while students from economically weaker sections struggle with the costs of technology and lack digital skills.

To bridge this gap, the Odisha government launched initiatives such as the Mo School and Madhu App, distributed tablets and smartphones, and broadcast lectures via television and radio. However, most of these efforts targeted school education, while higher education institutions struggled due to autonomy and uneven implementation. NGOs like KISS and local organizations attempted to deliver printed study materials, but their reach remained limited.

This study is significant both academically and for policy. By focusing on student perceptions in Koraput, a tribal-dominated district, it addresses a gap in research that often overlooks rural and remote regions. The findings can guide policymakers, planners, and NGOs in designing more effective interventions for online education in such areas. It also contributes to broader debates on educational equity and digital inclusion, aligning with Sustainable Development Goal 4, which emphasizes inclusive and equitable quality education for all.

LITERATURE REVIEW:

i. Transformation of Higher Education

Studies highlight that the COVID-19 pandemic accelerated the shift to online teaching. Urban students adapted better due to access to devices and internet, while rural and tribal students struggled with connectivity, digital literacy, and lack of teacher-student interaction **(Chandrika & Muthuselvi, 2021; Yadav & Saini, 2021; Das & Pattnaik, 2022).**

ii. Government Initiatives and Reach

Platforms like SWAYAM, DIKSHA, and PM e-Vidya expanded digital learning opportunities. However, surveys **(AISHE 2021–22; Ministry of Education, 2022)** show limited participation in rural colleges, with less than 35% attending regularly. NGO interventions (e.g., Siksha Sandhan in Koraput) provided localized support but faced barriers like electricity shortages and device unavailability.

iii. Challenges in Rural and Tribal Areas

Research in Odisha and Jharkhand revealed that tribal students often relied on shared devices, faced frequent power outages, and lacked exposure to interactive platforms. Gender disparities were significant—female students had less access to smartphones and were burdened with household responsibilities, reducing participation **(Singh & Kaur, 2022; Panda, 2023).**

iv. Faculty Preparedness and Institutional Support

Teacher readiness was uneven. **UGC's Faculty Readiness Survey (2022)** found only 36% of rural faculty trained in online pedagogy. Many relied on WhatsApp-based teaching, limiting engagement and depth **(Mohanty & Pradhan, 2021).**

v. Student Perceptions and Engagement

Surveys across states **(Sharma & Ranjan, 2023; Banerjee & Nair, 2022)** show rural students largely perceived online classes as ineffective, preferring offline modes for peer interaction and structured learning. Urban students appreciated flexibility but reported screen fatigue and reduced concentration. Engagement levels in tribal colleges remained low, with only 31% confident in online discussions **(Thakur & Das, 2023).**

vi. Learning Outcomes and Socio-economic Disparities

Studies consistently show poorer outcomes in online assessments compared to offline performance, especially in tribal districts **(Council for Social Development, 2021).** Socio-economic status strongly influenced access and perceptions, with low-income families struggling to afford data and devices **(NIEPA, 2022).**

RESEARCH QUESTIONS:

i. How do higher education students in Koraput District perceive the shift to online teaching during and after the COVID-19 pandemic?

ii. What specific challenges hinder students' access, participation, and sustained engagement in online classes within the district?

iii. In what ways do students evaluate the effectiveness of online teaching compared to traditional classroom-based learning methods?

OBJECTIVES:

i. To examine the perceptions of higher education students in Koraput District regarding the transition to online teaching during and after the COVID-19 pandemic.

ii. To identify and analyse the major challenges that students face in accessing, participating, and sustaining engagement in online classes within the district.

iii. To evaluate the effectiveness of online teaching as compared to traditional classroom methods, based on student feedback and experiences.

METHODOLOGY:

This study adopted a **descriptive cross-sectional survey design** to examine the perceptions, challenges, and effectiveness of online teaching among higher education students in Koraput District, Odisha. The design enabled the collection of quantitative data at a single point in time, providing a clear snapshot of student experiences during the transition from traditional to digital learning.

The research was conducted at **Bhairaba Degree Mahavidyalaya, Borigumma**, and **Vikram Dev University, Jeypore,** institutions that primarily serve students from tribal and rural backgrounds. A purposive sampling method was used to select **60 undergraduate students** from Arts, Science, and Commerce streams, ensuring that only those with direct experience of online classes during or after the COVID-19 pandemic were included. Participants represented 1st, 2nd, and 3rd years of study.

Data were collected using a **structured questionnaire**, divided into three sections: demographic profile, perceptions and satisfaction with online teaching, and challenges faced during online learning. The instrument included closed-ended questions and Likert-scale items, validated by academic experts for clarity and content relevance. Ethical protocols were followed, with informed consent obtained from all participants, and confidentiality and anonymity maintained throughout the process.

The study considered both independent variables (gender, academic stream, year of study, type of internet access, and device used) and dependent variables (student perceptions, reported challenges, satisfaction levels, and perceived effectiveness of online teaching compared to traditional classroom methods). This framework allowed for systematic analysis of how demographic and institutional factors shaped student experiences with online education.

DATA ANALYSIS AND DISCUSSIONS:

Table- 1

Satisfaction with online teaching

Satisfaction Level	Number of Students	Percentage
Highly satisfied	6	10%
Satisfied	20	33.3%
Neutral	13	21.7%
Dissatisfied	15	25%
Highly Dissatisfied	6	10%
Total	60	100%

This distribution shows that while a majority lean toward positive experiences (43.3% combining "Satisfied" and "Highly Satisfied"), a significant portion (35% combining "Dissatisfied" and "Highly Dissatisfied") expressed negative views. The presence of 21.7% neutral responses suggests that many students were undecided or had mixed feelings about the effectiveness of online teaching.

Table- 2

Satisfaction Level in Online Teaching	Mean	Standard deviation
	3.08	1.18

The analysis of satisfaction levels in online teaching shows that the mean score of 3.08 indicates a moderate level of satisfaction among respondents, slightly above the neutral point on a typical five-point scale. This suggests that while participants are not highly dissatisfied, they are also not strongly satisfied, reflecting a balanced but cautious acceptance of online teaching. The relatively high standard deviation of 1.18 reveals considerable variation in responses, meaning that experiences differ widely across individuals. Some participants may find online teaching effective and engaging, while others may struggle with challenges such as technological barriers, lack of interaction, or adaptation difficulties. Overall, the data highlights that satisfaction with online teaching is mixed, pointing to the need for targeted improvements to enhance consistency and address diverse learner needs.

Table- 3

Challenges faced during online teaching

Challenges	Frequency	Percentage of Respondents
Poor internet connectivity	39	65%
Lack of interaction	34	57%
Distractions at home	30	50%
Inadequate devices	24	40%
Difficulties understanding topics	13	22%

The findings show that students faced multiple challenges during online teaching, with poor internet connectivity (65%) being the most common. Other major issues included lack of interaction (57%), distractions at home (50%), and inadequate devices (40%), while difficulty in understanding topics (22%) was reported less frequently. Overall, the findings suggest that both technological and pedagogical factors contribute to the challenges of online teaching, with connectivity and interaction being the most critical concerns.

Table- 4

Comparison of online vs classroom teaching effectiveness

Perception	Number of Students	Percentage
Online more effective	6	10%
Both equally effective	14	23.3%
Classroom more effective	40	66.7%
Total	60	100%

Among 60 respondents, most students (66.7%) perceived classroom teaching as more effective than online learning. About one-fourth (23.3%) considered both modes equally effective, while only 10% favoured online learning. These findings suggest that classroom instruction remains dominant, though the presence of a moderate group points to potential for blended approaches. The results also reflect the continuing importance of face-to-face interaction in shaping student engagement and comprehension. At the same time, the openness toward blended learning highlights opportunities for integrating digital tools into traditional pedagogy. Overall, the data indicate that while online education is not yet widely accepted, it can complement classroom teaching when thoughtfully implemented.

Table- 5

Preferred mode of future teaching

Preferred Mode	Number of Students	Percentage
Offline (Classroom)	43	71.6%
Online	5	8.4%
Blended (Both)	12	20%
Total	60	100%

Out of 60 respondents, the majority (71.6%) preferred offline classroom learning, indicating strong reliance on traditional face-to-face instruction. A smaller group (20%) favoured blended learning, reflecting openness to integrating online tools with classroom practices. Only 8.4% of students preferred online learning exclusively, suggesting limited acceptance of digital platforms in the present context.

Table- 6

Chi- square test: Stream vs. Perceived effectiveness of online teaching

Stream	Effective	Non effective	Total
Arts	12	16	28
Science	12	06	18
Commerce	10	04	14
Total	34	26	**60**
Chi- square value= 4.17, P-Value= 0.124			

The chi-square test was conducted to examine the relationship between academic stream (Arts, Science, Commerce) and perceived effectiveness of online teaching. The results showed that the chi-square statistic was 4.17 with 2 degrees of freedom, and the associated p-value was 0.124. Since the p-value is greater than the conventional significance level of 0.05, the result is not statistically significant.

This indicates that students' perceptions of online teaching effectiveness do not differ significantly across streams. In other words, the variation observed in responses could be attributed to chance rather than a genuine association between stream and perception.

RESULTS

The survey of 60 undergraduate students in Koraput District revealed mixed perceptions of online teaching. As shown in Table 1, 43.3% of respondents expressed satisfaction (combining "Satisfied" and "Highly Satisfied"), while 35% reported dissatisfaction, and 21.7% remained neutral. The mean satisfaction score of 3.08 (SD = 1.18) in Table 2 indicates a moderate level of satisfaction, with considerable variation across individuals.

Challenges were widespread, with poor internet connectivity (65%) and lack of interaction (57%) being the most frequently reported issues (Table 3). Other notable barriers included distractions at home (50%), inadequate devices (40%), and difficulty understanding topics (22%).

When comparing online and classroom teaching (Table 4), the majority (66.7%) perceived classroom teaching as more effective, while 23.3% considered both equally effective, and only 10% favored online teaching. Preferences for future modes of teaching (Table 5) further reinforced this trend, with 71.6% preferring offline classroom learning, 20% opting for blended approaches, and just 8.4% choosing online learning exclusively.

Finally, the chi-square test (Table 6) showed no significant association between academic stream and perceived effectiveness of online teaching (). This suggests that perceptions of online teaching effectiveness were consistent across Arts, Science, and Commerce students.

DISCUSSIONS:

The findings highlight that while online teaching provided continuity during the pandemic, it has not achieved widespread acceptance among students in Koraput District. The moderate satisfaction levels and high variability in responses suggest that experiences with online learning are uneven, shaped by individual circumstances such as internet access, home environment, and device availability.

The dominance of poor connectivity and lack of interaction as challenges underscores the infrastructural and pedagogical limitations of online education in semi-rural and tribal contexts. These barriers not only restrict access but also reduce engagement, pointing to the need for investment in digital infrastructure and more interactive teaching strategies.

Students' strong preference for classroom teaching and their perception of its greater effectiveness reflect the enduring value of face-to-face interaction in fostering comprehension and engagement. However, the openness of a significant minority (23.3% viewing both modes as equally effective, and 20% preferring blended learning) suggests potential for hybrid models that combine the strengths of digital tools with traditional pedagogy.

The absence of significant differences across streams indicates that challenges and perceptions are broadly shared, cutting across disciplinary boundaries. This reinforces the idea that systemic issues—such as connectivity, devices, and teaching methods—are more influential than subject-specific factors.

RECOMMENDATIONS

Based on the findings, several measures can be suggested to improve the effectiveness and acceptance of online teaching in Koraput District:

1. Strengthen Digital Infrastructure

- Expand reliable internet connectivity in rural and tribal areas to reduce disruptions.
- Provide affordable data packages and institutional support for students with limited access.

2. Ensure Device Availability

- Introduce schemes for subsidized laptops, smartphones, or tablets.
- Establish digital resource centres within colleges to support students lacking personal devices.

3. Enhance Pedagogical Approaches

- Train faculty in interactive online teaching methods that encourage participation and reduce feelings of isolation.

• Incorporate multimedia tools, breakout sessions, and collaborative platforms to simulate classroom engagement.

4. Promote Blended Learning Models

• Combine the strengths of classroom teaching with digital tools to create flexible, hybrid approaches.

• Use online platforms for supplementary materials, recorded lectures, and assessments, while retaining face-to-face instruction for core teaching.

5. Address Environmental and Social Barriers

• Provide guidance to students on managing distractions at home and creating conducive study environments.

• Encourage peer support groups and mentoring to sustain motivation and engagement.

6.Policy and Institutional Support

• Government and universities should collaborate to design inclusive digital education policies tailored to semi-rural and tribal contexts.

• Regular feedback mechanisms should be established to monitor student experiences and adapt strategies accordingly.

CONCLUSION:

This study examined higher education students' perceptions of online teaching in Koraput District during and after the COVID-19 pandemic, focusing on satisfaction levels, challenges, and comparative effectiveness with classroom learning. The findings reveal that while a moderate proportion of students expressed satisfaction with online teaching, significant challenges—particularly poor internet connectivity, lack of interaction, and inadequate devices—continue to hinder access and engagement. These barriers highlight the infrastructural and pedagogical limitations of digital education in semi-rural and tribal contexts.

Students overwhelmingly perceived classroom teaching as more effective than online learning, with a majority preferring offline instruction for the future. However, the presence of a notable minority who favoured blended approaches suggests potential for integrating digital tools into traditional pedagogy. Importantly, the chi-square analysis confirmed that perceptions of online teaching effectiveness did not differ significantly across academic streams, indicating that these challenges and attitudes are broadly shared.

Overall, the study underscores the need for targeted interventions to strengthen digital infrastructure, enhance interactive teaching methods, and promote blended learning models. Such measures could help bridge the digital divide, improve student engagement, and ensure that online education complements rather than replaces classroom-based learning in the region.

REFERENCES:

1. Banerjee, S., & Nair, R. (2022). Student satisfaction with online learning in West Bengal. Journal of Higher Education Research, 15(2), 45–59.
2. Chandrika, R., & Muthuselvi, P. (2021). Attitudes of university students toward online learning in India. Asian Journal of Education and Development, 9(1), 112–128.
3. Council for Social Development. (2021). Impact assessment of online learning outcomes in tribal districts. New Delhi: CSD Publications.
4. Das, S., & Pattnaik, A. (2022). Online learning challenges in tribal belts of Odisha. Journal of Tribal Studies, 10(2), 56–70.
5. Indian Institute of Education Planning and Administration. (2023). Review of digital learning support systems in tribal areas. New Delhi: NIEPA.
6. Mohanty, S., & Pradhan, B. (2021). Faculty experiences with online pedagogy in rural Odisha. Teaching and Learning Journal, 8(3), 89–104.
7. Nayak, P., & Rout, S. (2023). Digital access among tribal students in Kandhamal and Rayagada. Odisha Journal of Higher Education, 11(2), 65–80.
8. Panda, R. (2023). Gender norms and digital education in Koraput district. Journal of Gender and Education, 17(2), 41–58.
9. Sharma, A., & Ranjan, P. (2023). Student perceptions of online teaching in Uttar Pradesh. Higher Education Review, 19(2), 102–118.
10. Singh, R., & Kaur, M. (2022). Gender-based access to digital tools in Rajasthan and Odisha. Indian Journal of Gender Studies, 29(1), 99–115.
11. University Grants Commission. (2022). Faculty readiness survey for online pedagogy in rural India. New Delhi: UGC.
12. Yadav, R., & Saini, P. (2021). Impact of online education among rural undergraduate students in Madhya Pradesh. Indian Journal of Education Studies, 8(2), 120–135.

