

# Access and Use of DIKSHA for School Teachers and Students Amid COVID-19: An Assessment of Rural Rajasthan

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## Abstract

*The COVID-19 pandemic has led to unprecedented disruptions in education worldwide. With the closure of schools, the entire focus of the education system shifted to digital education. The study assessed the access and use of the online education platform DIKSHA during the pandemic in rural areas of Rajasthan. It employed mixed methods research and covered 100 government schoolteachers and 100 students of grades 9-12. The study findings indicate that 96 per cent of teachers learnt to use DIKSHA during a pandemic and used the portal for lesson plans, assessments, question banks, and improving teaching skills. 95 per cent of students used DIKSHA to access digital textbooks and interactive worksheets. Education through DIKSHA has bridged the learning gap among rural children during the pandemic. The study also assessed challenges faced by teachers and students related to internet connectivity and interruptions.*

**Keywords:** COVID-19, DIKSHA, Online Education, Teachers, Students

## Introduction

As enshrined in the Indian constitution, under Article 21-A, the fundamental right of access to education is of immense importance for a nation's overall development. Education plays a pivotal role in improving knowledge, skills, attitude, personality, and values, thus enabling a person to make informed choices to lead a dignified life. Since the launch of the Right to Education Act, India has progressed dramatically in terms of increasing enrollment rates in schools (Shah & Steinberg, 2019). However, completing school education is still a challenge for many children living in poor and low-income families. The Indian education system is one of the largest in the world, with more than 1.55 million schools managed by

the state governments (Department of School Education & Literacy, 2021). However, ensuring equal access and quality education for all remains a major challenge, especially in bridging the education gap between the affluent and marginalized sections of society.

To promote educational equity and to bridge the education gap, the government of India has introduced several initiatives, including the latest National Education Policy 2020. The new education policy has emphasized the need to employ technology and digital platforms to improve the education ecosystem in the country at all levels. The policy recognizes the benefits and potential risks of technology and endorsed bridging the digital divide and ensuring equal access to online

and digital education for all. It calls for pilot studies, the development of digital infrastructures, online teaching platforms and tools, content creation and distribution, and the use of mass media for educational broadcasting to meet diverse learning needs and ensure widespread support.

The Indian Government imposed a lockdown in response to widespread infection with the COVID-19 virus. The pandemic adversely impacted all sectors of the country's economy, with education being the hardest hit (Gupta et al., 2020). Amid the COVID-19 pandemic, when traditional offline education channels became inaccessible due to lockdowns and social distancing, online education platforms became the primary means to deliver education to continue providing learning opportunities to school children. The crisis was a challenge but also provided an opportunity for education providers and duty-bearers to advance their technical knowledge and digital infrastructure. The Digital India Programme facilitated education in rural, remote areas through online portals, educational channels, digital learning platforms and internet availability. However, there has also been a shift towards online education as a new solution during the pandemic. This shift highlights the significance of assessing the effectiveness of online education platforms such as DIKSHA (Digital Infrastructure for Knowledge Sharing), which the Government of India introduced in 2017 to support and promote digital learning and education in the country (Sharma, 2021).

This research focused on assessing the effectiveness in access and use of DIKSHA amidst COVID-19 in rural areas of Rajasthan. It aims to explore how the DIKSHA platform helped rights holders (children) and duty bearers (teachers) ensure education continuity and bridge the education gap during the pandemic.

By analyzing the policies, infrastructure, and challenges related to online education, this study aims to provide valuable insights and recommendations to strengthen the effectiveness of the scope of digital learning via DIKSHA in rural India (SWAYAM, 2022). The study also expanded the scope and opportunities for teachers and parents to use digital learning, reflect on their experiences, and further build prospects of using DIKSHA. The findings can guide interventions and investments to ensure that children and youth in rural India have equitable access to quality education during a crisis such as COVID-19.

## Research Objectives and Questions

The major objective of the study is to assess access and use of DIKSHA platform among students and teachers in the government rural schools of Rajasthan amidst COVID-19 pandemic.

The major research questions of the study are:

- What is the level of access to and usage of the DIKSHA platform among schoolteachers and students in rural Rajasthan during the COVID-19 pandemic?
- What challenges do teachers and students in rural Rajasthan face in accessing and using the DIKSHA platform during the COVID-19 lockdown?

## Methodology

The methodology employed for the study involves an exploratory research design, combining primary and secondary research methods with both qualitative and quantitative analysis. The sample for this study consisted of 100 teachers and 100 students of grades 9 to 12 from rural areas of the Udaipur and Jaipur districts of Rajasthan who

have used the DIKSHA online education portals during the COVID-19 lockdown.

A two-stage random sampling approach was used to determine the sample size. The villages were selected in the

first stage based on random sampling procedures, followed by teachers and students in the second using the purposive sampling method. The distribution of respondents is as follows:

**Table-1: Sample size**

District	Teachers	Students	Total sample size
Udaipur	50	50	100
Jaipur	50	50	100
<b>Total</b>	100	100	200

Table 1 shows that the study was conducted in 30 villages in the Jaipur and Udaipur districts of Rajasthan and covered 40 schools, 20 schools each from the Jaipur and Udaipur districts in Rajasthan.

rise to modern education which is built on Indian traditions and value systems (Pendor, 2022). In addition, this policy recommends revising all components of the education structure including its governance and regulation.

**Literature Review**

**National Education Policy 2020**

The Sustainable Development Goals 2030 were adopted by India in the year 2015 (Kannan, 2021). The SDG-4 reflects the global education development agenda’s focus on ensuring inclusion and equal quality education for all by 2030 (Kalita & Boruah, 2020). The NEP 2020 is the 21<sup>st</sup> century’s first education policy that aims to respond to the various escalating development needs of our nation (Ministry of Human Resource Development, 2022) and achieve targets under SDG 4 by 2030

The education policies introduced before NEP have mainly addressed concerns related to equity and access to education in their implementation (Maseeh, 2023). The NEP 2020 was introduced to build a new and improved education structure that is allied with the Sustainable Development Goal 4 (ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all). This gave

**Education System amidst COVID-19 Pandemic**

In response to the COVID-19 pandemic-driven lockdown in India, educational institutions were forced to shutter their physical classrooms, exams, and assessments. This abrupt shift necessitated a rapid adoption of online learning platforms as the primary mode of education delivery (Upadhyay & Khode, 2018). This transition brought about numerous challenges for both students and educators, particularly in adapting to digital teaching methods (Jadhav, Bagul, & Aswale, 2020). However, it also offered a unique opportunity for resilience and preparedness in the face of future crises. The pandemic underscored the importance of strengthening technological infrastructure in education, as highlighted by Jadhav, Bagul, and Aswale in 2020. The Digital India vision emerged as a pivotal strategy to tackle these challenges. The government at both central and state levels, as well as private institutions, played a significant role in promoting

digital learning. The Human Resource Development Department (MHRD) also took proactive steps by launching the ICT project, a consolidated platform for online learning resources (Shraim & Crompton, 2020). This collective effort aimed to ensure uninterrupted education in the midst of the pandemic.

### Digital Education Schemes and Portals

Digital education and technology are rapidly becoming the future of learning in India. This approach involves using technology and digital devices to enhance education. It offers accessible learning opportunities for students worldwide, as demonstrated during the COVID-19 crisis. Digital learning tools bridge gaps in traditional classroom instruction and often prove more efficient. Studies have shown that students prefer digital platforms for quicker and more efficient access to knowledge, reducing the use of paper. Digital technology also enables cost savings, efficient resource utilization, and broadened educational reach. The Indian government supports various digital platforms and tools like Google Classroom, Zoom, GoToMeeting, and Microsoft Teams for communication and MOOCs for higher education and professional development (Lai & Widmar, 2021). Usage of modern ICT for teaching and learning in Indian higher educational institutions has become paramount. The development that information technology has brought to the field of education cannot be overemphasized. The modern perspective of E-learning is becoming more diverse as it is being influenced by many factors. Sun et al. (2008) categorized these factors into six dimensions: student, teacher, course, technology, system design, and environmental dimensions. Though user satisfaction is one of the salient factors in determining the success of a system, students are more concerned

about the quality of course content in terms of E-learning systems (Adebayo, Saini, & Singh, 2021).

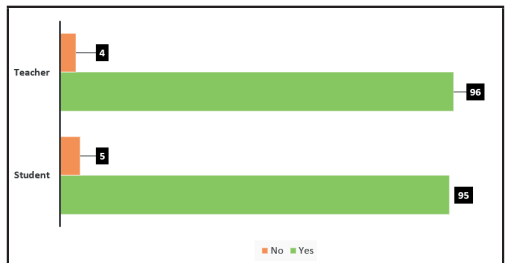
### Digital Education Initiatives of the Ministry of Education

The Ministry of Education, formerly known as the Ministry of Human Resource Development (MHRD), has spearheaded numerous digital education initiatives to revolutionize learning in India. Among these initiatives are SWAYAM (Panda, et al., 2019), providing free online courses with interactive assessments; the National Digital Library, offering an extensive repository of educational resources; and DIKSHA, an integrated platform providing e-learning resources and teaching aids to teachers, students, and parents (DIKSHA, 2022). These initiatives have bridged the digital divide, expanded access to quality education, and empowered learners with diverse knowledge sources, ultimately transforming the landscape of Education in India (Kumar & Selva Ganesh, 2022).

### Results

The study examined responses from rural Jaipur and Udaipur districts to evaluate the access and usage of the DIKSHA portal.

Graph-1: Awareness on Use of DIKSHA

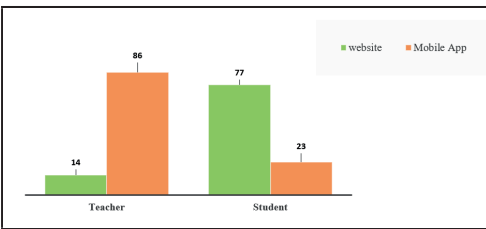


Graph 1 revealed that a significant majority of teachers (96 per cent) and students (95 per cent) in rural areas are aware of the portal. However, a small

percentage (over 4 per cent of students and 5 per cent of teachers) remain unaware of its existence and usage in education.

This suggests a growing awareness of digital education in India among rural teachers and students. DIKSHA is an online platform offering a wide array of courses, spanning from high school to higher education and skill sector courses. The effectiveness of the portal hinges on increasing awareness among potential users and recognizing its potential for fostering lifelong learning skills. Government circulars, orders, and teacher training on DIKSHA contributed to raising awareness, especially during the COVID-19 lockdown when online education gained significant attention nationwide.

**Graph-2: Source of Access to DIKSHA**

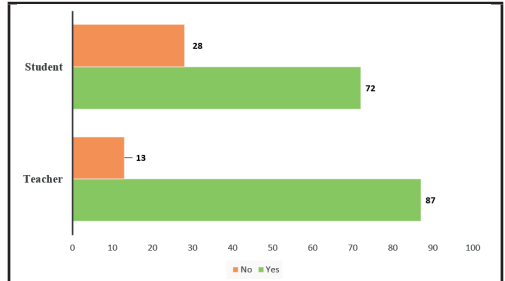


Graph no 2, depicts the responses of the study participants regarding the different sources utilized by the students and teachers to access the DIKSHA portal. The study has shown that the majority of the teachers i.e., 86 per cent, have used mobile-based apps as their source of access, and the remaining 14 per cent of the teachers shared official websites and link DIKSHA as their source of access to the portal. Among students, the primary source for accessing the portal was the official website of the online platform, accounting for 77 per cent, while 23 per cent used the mobile app. In contrast, teachers had a higher usage rate of the portal, with many using the official mobile app, which was

readily available to them. The COVID-19 pandemic compelled students to switch to online platforms like DIKSHA for their education when schools and colleges

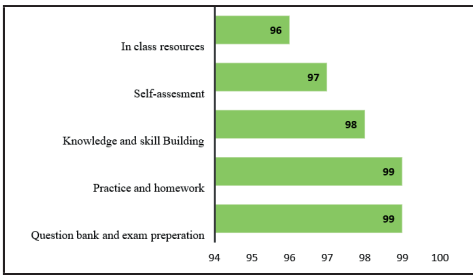
were closed. This sudden shift created challenges for students who were not accustomed to these digital learning platforms.

**Graph-3: Percentage of Respondents Registered on DIKSHA**



As per the data indicated in Graph 3, it can be clearly observed that 72 per cent of students have registered for courses on the Central Education Ministry's DIKSHA portal, while 28 per cent have not. This increasing student registration suggests a growing interest in online education in India. In comparison, teacher registration on the portal shows a slightly higher trend, with 87 per cent of teachers indicating they have registered for courses. This implies that teachers have actively engaged with the portal, likely using it for course creation and delivery. However, 13 per cent of rural teachers in the study have yet to register. The rising trend in registration among both teachers and students in rural areas signifies increased access to curriculum-aligned content on the platform. As registered users of DIKSHA, these individuals have greater access to varied educational materials, contributing to the education of marginalized children and enhancing their learning outcomes through digital initiatives.

**Graph-4: Reasons for Using the Portal**



The data in the graph 4 suggests that the most common reasons for using these portals are self-assessment with 97 per cent of students, Question Bank and Exam Preparations by 99 per cent of students, Practice and Homework by 99 per cent of students, and teacher lesson planning rather than direct student engagement in the learning process. Moreover, teacher-developed resources on DIKSHA have been highly effective, benefiting 96 per cent of students in their lesson learning. Overall, DIKSHA has proven to be a valuable tool, providing quality educational resources and aiding the academic progress of rural students. Knowledge and Skill Building with 98 per cent of students, respectively. These findings underscore the platform's significant impact in enhancing academic performance and preventing dropouts during school closures.

**Chart-1: Teaching Learning Material Used by Students**

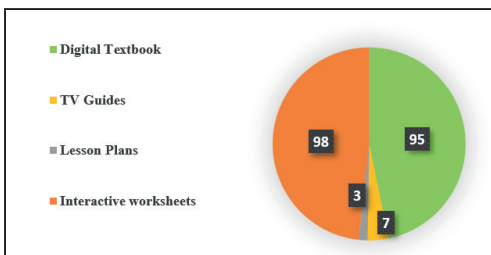
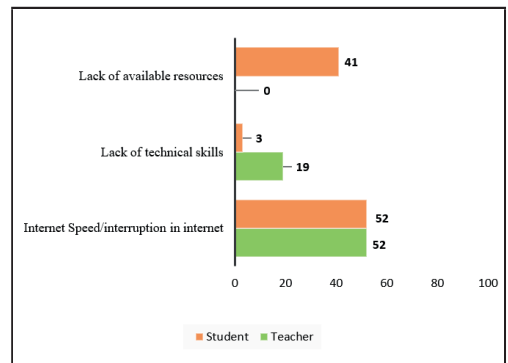


Chart 1 reveals that digital textbooks and interactive worksheets are the most favored learning materials among students, with 95 per cent and 98 per cent utilization rates, respectively. Digital textbooks are appreciated for their

convenience, accessibility, and cost-effectiveness, providing a wide array of educational resources. Interactive worksheets, on the other hand, enhance engagement and active learning. In contrast, TV guides are utilized by only 7 per cent of respondents, potentially due to limited TV programming access or alternative preferences, while lesson plans find use among a mere 3 per cent of students, indicating their primary role in teacher lesson planning rather than direct student engagement in the learning process.

**Graph-5: Major challenges being faced by teachers and students**



Graph 5 illustrates the challenges encountered by teachers and students when using online portals like SWAYAM/ DIKSHA in rural areas. The primary challenge, faced by 52 per cent of both teachers and students, is Internet speed and interruptions, mainly due to inadequate internet infrastructure in rural areas. Additionally, many students lack access to digital devices, exacerbating the digital divide, particularly evident during the pandemic. The second challenge, lack of technical skills, is reported by 19 per cent of teachers and only 3 per cent of students, suggesting a need for teacher training and support. The third challenge, lack of available resources, affects 41 per cent of students but none of the teachers and is related to the scarcity of devices like computers or smartphones in rural areas. Addressing

these challenges is crucial for making online education accessible in rural regions, requiring improvements in infrastructure, connectivity, training, and resource provision. While online education platforms like DIKSHA and SWAYAM have shown positive outcomes during the pandemic, efforts to promote digital education and raise awareness in rural areas must continue, considering the challenges faced by some teachers and students.

## Discussion

Overall, the study assessed the access and use of an online education platform, DIKSHA, in the context of rural areas amid the COVID-19 pandemic, and it emerged from the study very strongly that the use of DIKSHA played a crucial role in ensuring education and continued learning for teachers and students in rural areas of the country. The education department provided detailed guidelines and facilitated the use of DIKSHA during COVID-19, generating widespread awareness among students and teachers. However, some teachers and students are still unaware of these platforms, highlighting the need for continued efforts to promote digital education and raise awareness in rural areas. The study also shows that most teachers and students have faced challenges in using online portals, with internet speed/interruption in the internet being the primary challenge. Other challenges include limited technical skills and available resources such as digital devices. These challenges underline the need for improvements in digital infrastructure, connectivity, and training to ensure that online education platforms can provide maximum benefit to students and teachers in rural areas.

## Conclusion

The constitution of India has given fundamental rights to education,

which is guaranteed under Article 21-A. In India, education has a crucial role in the expansion and development of the entire society, particularly in the ramifications for the economic, social, and technological underpinnings of society. The Indian Government has launched a number of initiatives, including DIKSHA as digital infrastructure, to reduce the gap in education and bring educational parity. The NEP 2020 strongly emphasizes the value of enhancing education via the use of technology and digital platforms. In reaction to widespread COVID-19 infection, the Indian government instituted a lockdown. The pandemic adversely affected all areas of the country's economy, but the education sector was the hardest devastated. This study examined the effectiveness and use of DIKSHA during COVID-19 in rural areas. The study broadened the range of options for educators and students to use digital learning, think back on their knowledge, and further develop DIKSHA usage prospects in the country's marginalized areas.

The findings of the study provided valuable insights into DIKSHA usage patterns and preferences of teachers and students in rural areas regarding online education portals. The data indicates that teachers exhibit higher engagement with the DIKSHA portal, utilizing it for various purposes such as course registration, resource creation, and peer collaboration. This study highlighted the effectiveness of platforms like DIKSHA in supporting teacher professional development and enhancing classroom instruction. For students, the online portals have proven to be instrumental in accessing assessment aids, question banks, exam preparation materials, and in-class resources, which substantially contributed to their academic performance and knowledge acquisition. The DIKSHA platform has

bridged the learning gap through a broader educational landscape available online during the COVID-19 pandemic. However, the study also identifies challenges faced by teachers and students, particularly related to internet connectivity and interruptions. These obstacles need to be addressed to ensure equitable access to online education in rural areas.

## Recommendations

### Improving Internet Infrastructure:

To strengthen the digital learning environment for children in rural areas, collaborative efforts are required among educational institutions, government agencies, telecommunication companies and civil society organizations. Investments in digital education infrastructure need to be enhanced, such as expanding network coverage and improving bandwidth, to reduce internet-related challenges and ensure accessibility of learning facilities to all at all times.

**Digital Literacy Training:** Comprehensive training and capacity-building programs should be designed and implemented to enhance the digital literacy skills of both teachers and students. These programs should focus on familiarizing them with online portals, optimizing their usage, and effectively integrating digital resources into the teaching and learning process.

**Continuous Evaluation and Improvement:** Regular monitoring and evaluation of utilization of the DIKSHA portal should be conducted regularly by including feedback from users,

particularly teachers and students. This should be actively sought and considered for making necessary updates and improvements to the portal for education purposes.

### Partnerships and Collaboration:

Strengthening partnerships between educational institutions, government bodies, and ed-tech companies can promote developing and delivering high-quality online education resources/ services. Collaborative efforts can help in leveraging expertise, sharing best practices, and ensuring that online portals cater to the specific needs of rural areas.

**Awareness Campaigns:** Launching awareness campaigns at the grassroots level is crucial to inform teachers, students, and parents about the benefits of online education portals. These campaigns should highlight the potential of these platforms in improving learning outcomes and guide how to access and utilize them effectively.

By implementing the recommendations based on the study, the existing challenges can be addressed, and this will further unlock the full potential of online education platforms in rural areas during the crisis and school closures. Empowering teachers and students with reliable connectivity, digital literacy skills, and access to high-quality resources will contribute to an inclusive and equitable education system.

*(Acknowledgement: The authors acknowledge the financial support of Mahatma Gandhi National Council of Rural Education, Department of Higher Education, Ministry of Education, GoI)*

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