Abstract

COVID-19 has pushed 75 million Indians back into poverty; the risk-control decisions to slow down the virus by the Indian government have adversely affected the education system in the country and led students into temporary 'home-schooling' situations in 2020–2021. The present study focused on the inconvenience caused to students living in Visakhapatnam, identifying the technology that has prompted new examples of educational innovation and its impact on the trajectory of learning innovation and digitization in the Indian education system, on a random sample of 309 students from 8 schools under the public, private, and unaided categories. The sample size calculated on a sample of 'n' student beneficiaries is \( n = \frac{z^2 \times p \times q}{d^2} \) (calculated on n = the desired sample size, z = the normal standard deviation, p = the proportion in the target population, and d = absolute precision or accuracy). The data was analysed using a mixed methodology, using a quantitative sampling method by sending an online questionnaire and qualitatively measuring the responses of the target group by percentage. The centuries-old, classical, or lecture-based approaches to teaching methodology, entrenched institutional biases, and outmoded classrooms are still prevalent in some poverty-stricken regions and developing states like Andhra Pradesh in India. In 2023, the education system continued to practice learning anywhere, at any time. Learning outcomes with digital education in various formats positively impact education. The classical in-person classroom can complement new learning modalities, from live broadcasts to 'educational influencers' to virtual reality experiences. Bridging the gap between classical and contemporary teaching methods, improvising learning, and heading towards lifelong learning by making it a habit integrated into daily routines is valid and should be made a lifestyle.

Keywords: Covid-19; education; innovation; digitalization.
approaches., and because of advances in literacy, students currently have more choices (Bellei & Cabalin, 2013, p.110)1. The impact of COVID-19 on students, based on the relationship between digital technology and education and the stressful circumstances that emerged among the students during COVID-19, remained high (Renton & McCrindle, 2020)2. Thus, the growth of humanity depends on a high standard of education. Aspiring entrepreneurs have had numerous opportunities to enter the market due to the rising digital wave during and post-pandemic (Sachin Modgil et al., 2022)3. In COVID-19, multiple restrictions contributed to an economic slowdown in most of the world during 2020–21, whereas digital entrepreneurial activities witnessed a sharp rise (Bacq et al., 2020; Ratten, 2020; Shareef et al., 2021). Entrepreneurial approaches and activities emerged in complex and uncertain settings, particularly in tackling the physical constraints with digital technologies. The literature indicates that entrepreneurial activities multiplied during uncertain times and increased the risk appetite (Muñoz et al., 2020)7. In the last two decades, a digital entrepreneurship phenomenon fuelled by COVID-19 technological assets enhanced ranging from Internet tools to communication and information technologies (Abubakre et al., 2021; Bai et al., 2021; Secundo et al., 2021). According to estimates, around 504 million Internet users in 2019, 433 million of them remain children over the age of 12(ET, 2020)11; the transition from traditional to digital entrepreneurship during COVID-19 and the role of DoI in this process, as well as prospective and existing entrepreneurs in the digital realm who are leveraging technologies in novel ways. Using creative solutions for digital platforms ensures that the institution stays relevant and fulfills the demands of its consumers and industry partners.

**Literature Review:**

The State of Indian Education, The Kothari Commission suggested 1964 raising GDP expenditure on education to 6%. According to the Economic Survey submitted to the Parliament on January 31, 2022, 3.1% remain projected for 2021–2022. According to the National Achievement Survey, India's learning outcomes fell in 3 years, with a 22% jump in expenditures over its previous year's revised budget, such as INR 63,449 crore for 2022-23. The nation's average literacy rate remains at 77.70% as of 2021. According to the National Statistical Office, for those in the 15–24 age range, the male literacy rate is at 84.70%. At the same time, the female literacy rate remains at 70.30%. On the contrary, Andhra Pradesh has a 73.4% Male Literacy Rate and 59.5% Female Literacy Rate, while the Average Literacy Rate remains 66.4%. 10,32,570 of India's 15,07,708 schools are run by the Union and State governments, according to the Unified District Information System for Education Plus (UDISEP)2019–20. 53,277 private schools are run by other organizations and institutions, compared to 3,37,499 unassisted schools. Over 37% of students in remote areas do not complete their studies, and 48% cannot read more than a few words due to COVID-19 and extended school closures. UNICEF reports that students need more interest in learning and better access to global digital or broadcast lectures. Due to COVID-19, schools throughout the world, including the Indian government, canceled in-person classes to widen the gap in digital access, creating learning loss and education discontinuity, desperately putting quality education in jeopardy, becoming a reality, resulting in encouraging socioeconomic inequities and further exposure owing to the digital divide (Gomez, 2014)12. In a reconstruction where technology is the driving force, facing, comprehending, and accepting education remains...
essential to advancement. Initiating an outcome that obtains greater competency helps learners improve and allows schools to be the centers of character and innovation (Pravat, 2020). COVID-19 became a catalyst for education, making the Indian education sector's stakeholders technologically literate. Educational institutions need more options to find themselves searching for creative solutions quite rapidly, which remain possible through standard asynchronous online learning platforms like Microsoft Teams, Kahoot, Canva, class crafts, modular distance learning, and many more. Synchronous face-to-face video lessons to assist in pre-empt school closures and began using online learning, even for topics such as Physical Education, pushing students to master new digital skills for creative, motivational, and empowering applications (Sharma et al., 2022). One benefit of online learning is that it remains more accessible and more convenient than traditional classroom settings. Students may learn at their own pace and engage in other activities, which saves time and allows for independent study. The use of digital technologies in education delivery continues to be improved by COVID-19 (Elia, 2022). The role of teachers in online learning education shapes minds, lives, communities, and the planet. Training methods and approaches that have undergone considerable adaptations to preserve trust and perform effectively in a culture where the education system evolves quickly remain necessary to prepare teachers for the many changes and challenges ahead. Using an animated film, real-world examples, PowerPoint presentations, PODCASTS, and a reward system to guarantee holistic learning in students' academic lives helps students become more creative and adept at making decisions. Teaching and learning may alter protocol and teaching style due to emerging changes from teachers' perspectives, as stated by National Education Policy 2020. Virtual learning can be productive in stimulating, motivating, encouraging, and developing students' sense of innovation, initiative, social skills, and creative representation in the classroom. To lessen the effects of COVID-19, most governments first chose to temporarily close educational institutions (a reference to an item published in the Times of India on December 9, 2021). Students attend courses using various educational initiatives, such as online classrooms, even when educational facilities remain shuttered due to the lockdown. However, many students find it challenging to get the gadgets needed for online learning, which opens up markets for creative gadgets and apps that let people continue their education even in difficult times. In order to help students in the current circumstances, teachers who are all professionals in traditional classroom instruction are new to digital instruction, embrace the newest techniques, and manage students like experts. The pandemic positively impacted education, and new forms of online learning arose as the new normal. A considerable change from individualized instruction of conventional educators to the self-learning techniques by the learners, both in the digital and print media, whichever is applicable and easily accessible in the learner's context, either with the guidance of family members or the accessibility of the volunteer group member in the community trained to serve as learning facilitators. (a reference to July 8, 2020, Guidance-on-Distance-Learning) A learning delivery mode where the teacher encourages learning and engages learners' active involvement using various devices connected to the internet while they are geographically remote.

The learning gap brims through media instruction that uses educational radio or television programs, either on stations or channels devoted to offering learning content to learners as a type of distance education. Using distance learning resources like Edmodo, Google Classroom, Schoology, and many more, blended and hybrid learning aims to
connect students, rethink education, and accelerate change in teaching and learning. Learning strategies include a range of languages and involve students virtually.

NEP 2020's education perspectives guarantee increased access to education even in isolated and tribal communities. An educational policy framework aimed at promoting equity and inclusivity in and through education, Stressing the importance of gender parity in attaining universal access to education, Academic dedication to enhancing learning outcomes, and providing high-quality instruction during the current academic year, Promoting chances for everyone to engage in high-quality lifelong learning, Boost educational quality by working with other countries, Integrating gender inclusiveness, mental health, psychosocial support, digital skills, and socio-emotional and life skills into courses.

Indian government initiated a National Educational Scientific Forum (NETF). The Indian education system plans to establish a progressive education system with uniform rules for all government, private, and deemed institutions. A key pedagogy component comprises community and educational institution involvement and school readiness. Educators keep an eye on, evaluate, and provide feedback on classroom practices in order to track students' progress in understanding and proficiency with basic pedagogical concepts. There remains a need for gender mainstreaming activities in the community and a national back-to-school campaign coordinated by women and volunteers with the inclusion of girls in the classroom. Teach India's youth to act quickly in emergencies and to mobilize large-scale humanitarian aid during the pandemic to lessen the adverse effects on pupils, particularly in rural areas of the country.

More entrepreneurs who create innovative digital devices for educational institutions are needed in India to meet the growing demand for higher education among its people. The goal of Andhra Pradesh's Honourable Chief Minister Sri Y S Jagan Mohan Reddy's decision to make English the primary medium of instruction in all government schools in place of Telugu and Urdu aims to strengthen these educational institutions, which are alarmingly losing pupils to private schools. Children need to learn English effectively not only by incorporating the technology by gradually establishing it in schools in a stress-free setting as support but also by employing methods that are ideal for both teaching and learning English, improving commendable English skills for the future job market, and promoting social equality between the rural and urban, reducing the gaps between the rich and underprivileged. Growth in the availability of technology and upholding quality standards must coexist to enhance the teaching-learning process and guarantee improved outcomes.

Technology Integration into Education System in Andhra Pradesh (Nookarapu, 2019)\(^\text{16}\); Technology for Student Learning- Digital Class Rooms (DCR), Smart Virtual Classrooms (VCR), Energised Textbooks with QR Codes, and ICT Curriculum for Teachers and Students; Technology for Teacher Development- AP eKnowledge Exchange Portal (ApeKX), Content Repository, Digital Literacy and capacity building & Online Courses; Technology for improved School Management, student enrolment, dropout prediction, and monitor. Student performance assessments, free textbooks, midday meals, and uniforms, and implementing programs like Aadhaar enabled biometric attendance encompassing around 1.8 lakh teachers and 40 lakh (4 million) pupils. Faculty shortages at higher education institutions result from India’s rising unemployment rate brought on by the coronavirus outbreak. The Andhra Pradesh government examined the
required framework for providing a range of benefits and services, including infrastructure, teacher preparation, employee grievances, admission and enrollment, special needs services, and transparency in administrative processes such as school rationalization and consolidation, yearly teacher transfers, and infrastructure planning (Nookarapu, 2019).

In order to improve students' abilities in decision-making, creative problem-solving, teamwork, and flexibility, it remains essential to strengthen resilience in Indian educational systems after the pandemic. Resilience building must be prioritized in the future educational system to ensure all students have the necessary abilities. Technology in education develop an inventive, safe, and sustainable world in 2030 characterized by sophisticated disruptive technologies and an efficient economy alongside the evolution of consciousness and sustainable attitudes. Innovation remains essential to the progress of human society (Shantha, 2021).

Internationally recognized futuristic and future-ready educational establishments provide countless prospects for the future to experience exponential personal growth and cultural exploration. As per NEP2020, two critical components of futuristic education for schools are giving teachers and students exposure to experiential learning and being internationally connected to share extensive backgrounds with the students. In order to learn more, educators must stay prepared to conduct experiments, solve problems quickly, stray from standard teaching methods, and connect with people worldwide. In elementary school, children should be free to choose any courses they want to study. More integrated activities allow them to develop holistically, understand the newest technologies, and become knowledgeable about technology in general.

**Research Gap:**

The complications involved in the utilisation of technology in education in rural, urban, and tribal schooling in India and efforts by Government of Andhra Pradesh.

**Research Objectives:**

- To investigate student difficulties in Visakhapatnam's rural, tribal, and urban areas while using technology in education during the pandemic.
- To determine which technological advancement has inspired novel examples of inventive teaching during and after the pandemic.
- Influence of technology and entrepreneurial quantity on the learning innovation and digitization progression in the Indian education system, particularly in Visakhapatnam areas.

The study included students, teachers, and parents from Visakhapatnam Rural and Urban Areas, Andhra Pradesh, India. The study focused on the impact of the COVID-19 pandemic on the Indian education system, assessing all possible perspectives and perplexities, particularly in Visakhapatnam, Andhra Pradesh.

**Research Method & Data Source:**

The researcher focused on mixed methodological approach. The data was analysed, using a quantitative sampling method by sending an online questionnaire and qualitatively measuring the responses of the target group by percentage. Researchers prefer experimental research methods, while descriptive design approaches were developed for describing, comparing, and
assessing the issue using observational methods and case study techniques by studying different sections of the same group. The content observations by the researcher were with students, parents, and teachers who are associated with children under the category of senior secondary level in and around Visakhapatnam City, Andhra Pradesh, India.

**Data Source:**

A sample is a small portion of the population selected for data collection and analysis—the probability sampling method used while conducting the study.

The study respondents fall under three categories; Students, Parents, and Teachers.

The study's total population is three hundred and nine (309), Eight schools from Visakhapatnam. A complete case study of a random sample approach for handling data in research, including educational and epidemiological areas. The selection of sample size calculated on a sample of 'n' student beneficiaries $n = \frac{z^2 \cdot pq}{d^2}$ ($n =$ The desired sample size, $z =$ The normal standard deviation, $p =$ The proportion in the target population, $d =$ Absolute precision or accuracy).

Respondents of the study (Students, Teachers &Parents)

- Government/Municipal Schools in Visakhapatnam rural, tribal and urban areas.
- Private / Unaided Schools in Visakhapatnam rural, tribal and urban Areas.
- CBM High Schools. Visakhapatnam.

**Data Analysis:**

The Data was analyzed qualitatively by the information collected from various sources. Quantitatively by measuring the responses of the target group by percentage.

**Findings And Analysis:**

The study classifies various technological methods, challenges, and academic stress levels, with 309 respondents covering students, parents, and teachers.

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>224</td>
<td>72.5</td>
</tr>
<tr>
<td>Parents</td>
<td>44</td>
<td>14.2</td>
</tr>
<tr>
<td>Teachers</td>
<td>41</td>
<td>13.3</td>
</tr>
<tr>
<td>Total</td>
<td>309</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Table1: Distribution of the respondents as per the category of stakeholders.**
The struggle of students with the new learning method during this pandemic. The stakeholders have accepted online learning methods to continue education because they are more accessible to the students, parents, and teachers as it makes students more competent and engaging.

The primary challenge is the cost and budgetary concerns. 41% of respondents faced the financial problem that led to a lack of equipment such as cellphones, laptops, and internet connections alongside the internet connection and electricity problems, especially in rural areas where there is
weak or no signal. 51.1% urban elite did not face many challenges compared to the urban poor and rural.

**Table 3: Adopting different learning methods by the respondents.**

<table>
<thead>
<tr>
<th>Methods</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online learning</td>
<td>150</td>
<td>48.5</td>
</tr>
<tr>
<td>Blended learning</td>
<td>85</td>
<td>27.5</td>
</tr>
<tr>
<td>Flipped classroom</td>
<td>48</td>
<td>15.5</td>
</tr>
<tr>
<td>Hybrid learning</td>
<td>26</td>
<td>8.4</td>
</tr>
<tr>
<td>Total</td>
<td>309</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*source: primary data.

**Figure 3: Adopting various learning strategies, as reported by the respondents.**

Parents who can’t afford to give smartphones to their children due to insufficient funds and resources, mainly due to the pandemic, have to opt for blended and hybrid learning techniques, which is a challenge. Accepting and adopting different modern teaching methods using technology, such as incorporating remote and hybrid learning provided interactive learning opportunities that became part of modernizing facility programs. Especially during the Covid-19 pandemic, online education has become essential. Due to government intervention, many schools have been able to conduct online/remote and hybrid learning classes for students using this facility. 48.5% of respondents prioritized online learning, 27.5% preferred blended learning methods only 8.4% favored hybrid learning.

**Table 4: The respondents’ opinions on online teaching difficulties faced by teachers’.**

<table>
<thead>
<tr>
<th>Difficulties</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited awareness of online teaching</td>
<td>153</td>
<td>49.5</td>
</tr>
<tr>
<td>Correction</td>
<td>80</td>
<td>25.9</td>
</tr>
<tr>
<td>Assessments conduction</td>
<td>36</td>
<td>11.7</td>
</tr>
<tr>
<td>Health</td>
<td>33</td>
<td>10.7</td>
</tr>
<tr>
<td>External distraction</td>
<td>07</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>309</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*source: primary data.

Teaching under home environment and 49.5% lack awareness of online teaching, lack of basic facilities, external distractions and family interruption during classes, conducting assessments, 25.9% responded difficulty in the correction of notebooks as well as answer-copies which became a significant concern. School work turns 24×7, and 10.7% felt that the ongoing stressful events caused health issues and illnesses in teachers.
In both online classes, students can attend class from anywhere, communicate regularly with instructions, and make network connections with classmates. 3.6% of respondents preferred Asynchronous online courses to complete work on the student's schedule each week, receiving immediate feedback on quizzes. Scheduling teamwork when it's convenient for everyone. on the contrary, 96.4% responded by prioritizing synchronous online classes to attend weekly with instructors and classmates, participating in real-time discussions during class time, and improving presentation skills.
Table 6: The respondent’s source of information during the pandemic.

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>WhatsApp</td>
<td>217</td>
<td>70.2</td>
</tr>
<tr>
<td>e-mail</td>
<td>89</td>
<td>28.8</td>
</tr>
<tr>
<td>Telegram</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>309</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*source: primary data.

Figure 6: Source of information used by the respondent during the pandemic

70.2% of the students, parents and teachers accepted and encouraged WhatsApp as a source of information, followed by 28.8% who received information through e-mail. Only 3% of the respondents communicated through Telegram.

Table 7: Distribution based on respondents’ opinion on vaccination:

<table>
<thead>
<tr>
<th>Opinion on vaccination</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>307</td>
<td>99.4</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>Total</td>
<td>309</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*source: primary data.

Almost 99.4% of respondents responded positively to the vaccine as it is mandatory to attend off-line classes as instructed by the Indian government under COVID precautionary measures.
Table 8: Distribution based on respondents’ stress due to communication barriers and connectivity challenges:

<table>
<thead>
<tr>
<th>Stress levels</th>
<th>Secondary Level</th>
<th>Senior Secondary Level</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 153</td>
<td>n = 156</td>
<td></td>
</tr>
<tr>
<td>No stress</td>
<td>4(2.6)</td>
<td>6(3.8)</td>
<td>10(3.2)</td>
</tr>
<tr>
<td>Slight stress</td>
<td>49(32)</td>
<td>65(41.7)</td>
<td>114(36.9)</td>
</tr>
<tr>
<td>Moderate stress</td>
<td>65(42.5)</td>
<td>47(30.1)</td>
<td>112(36.2)</td>
</tr>
<tr>
<td>High stress</td>
<td>19(12.4)</td>
<td>11(7.1)</td>
<td>30(9.7)</td>
</tr>
<tr>
<td>Extreme stress</td>
<td>16(10.5)</td>
<td>27(17.3)</td>
<td>43(13.9)</td>
</tr>
<tr>
<td>Total</td>
<td>153(100)</td>
<td>156(100)</td>
<td>309(100)</td>
</tr>
</tbody>
</table>

Figures in parenthesis indicate percentage.
*source: primary data.

Limited awareness of online teaching platforms, security concerns, and the drastic changes in the learning environment increased stress and anxiety levels. Psychiatric counseling has become an urgent need of the hour for students. E-learning causes frustration not only among teachers and parents but also among students to hand in requirements on time due to system crashes, thus contributing to more stress and might affect the student’s progress, academic achievement, and morale levels.

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp.sig.(2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.458*</td>
<td>4</td>
<td>.033</td>
</tr>
</tbody>
</table>

X²(4,N=309) = 10.458, p< .033

To ascertain the difference in respondents’ stress due to communication and connectivity challenges. The association is statistically significant.

Results & Discussions:

The COVID-19 pandemic has caused an enormous mass disruption of education in history and worsened the global learning crisis. In April 2020, more than 190 countries instituted national school closures, putting up to 1.6 billion students at risk of falling behind at a high cost to their education and futures (a reference to report -UNICEF and the International Telecommunication Union, December 2020). Learning loss remains much expected for students from disadvantaged backgrounds who access the public school system, three hundred million people across the globe don't have access to online learning, but it also comes with many challenges, such as rampant cyberharassment and misinformation. In India, The global Covid pandemic has seen a rise in child marriages, teenage pregnancies, and gender-based violence. The education sector fought to survive the crises with a different approach, digitizing the challenges to wash away the pandemic threat. HRD Ministry launched the Vidya Daan 2.0 program to develop and contribute e-learning content to help children continue learning anytime and anywhere. More than one crore teachers and students in over 30 States and Union Territories are found using the Digital Infrastructure Knowledge Sharing (DIKSHA)App for curriculum-based education and training, according to First Post April 23, 2020. India Today, March 5, 2021, states (reference in Education Today) that online education is not an option for everyone as only one in four children has access to digital devices and internet connectivity. Pre-COVID, only a quarter of households (24%) in India had access to the Internet, and there is a significant rural-urban and tribal physiographic divide alongside the gender divide. Online learning helps keep students up and
running with an opportunity for self-study, but it remains challenging to give practical lessons. Teachers, parents, and caregivers strive to support children in catching up on the learning that remains missed during the crisis, especially for those unable to access digital or remote learning opportunities. Further, children's mental health and well-being are a crucial concern and need psycho-social support. Challenges associated with distance learning strategies include access to digital devices with internet connectivity, the need for safe learning spaces, the possibilities and capabilities for teachers and students, the necessity for a rise in entrepreneurs to accommodate E-Library sources, and EBooks that benefit students under Swayam courses. Apart from regular virtual class engagement, institutions provided various student engagement initiatives. Educationalists and policymakers took this as innovation and creation and started implementing a similar approach to other educational sectors (Shenoy, Mahendra &Vijay, 2020). A multi-prolonged strategy and entrepreneurship in the education sector remains necessary to build a resilient education system in India, enhancing skills for productivity, employability, and psychological well-being in the next few years. E-learning is a boon to academic teachers and society as a whole.

Recommendations/highlights:

The recommendations show that close monitoring of students, establishing guidelines for online behavior, providing counseling, and taking disciplinary action are effective ways to maintain decorum. Teachers and students suggested continuous faculty development. For this reason, they provide less cognitive load and increased interactivity during online teaching. Teachers need training and student orientation when using online learning tools. Buying premium software packages will also help overcome many limitations and remain recommended. Rising demands of innovative technology improve entrepreneurship at large for the benefit of society and to gain widened knowledge, further benefiting personal and societal development.

Highlights

The possible consequences of the COVID-19 pandemic on the life of students are investigated. Actually, students of different age groups and time spent on daily life activities are scrutinized. Furthermore, all intricacies, such as students' social, economic, and mental status, are analyzed.

This study also suggests that public authorities should take all the necessary measures to encourage enhance the learning experience by justifying the negative impacts caused due to the COVID-19 outbreak.

latterly, Influence of technology and entrepreneurial quantity on the learning innovation and digitization progression in the Indian education system, particularly in rural and tribal areas a wide gap is seen between government policy and the actual situation.

Opinions/outlook:

Since the COVID-19 pandemic ended, the concerned authorities should continue to invest in online education to enhance the learning experience. They should carefully analyze the issues experienced during the sudden online learning transition and prepare for future situations—training sessions for educators on digital skills and improved student-teacher interaction. Fundamentally disadvantaged students must ensure the availability and accessibility of digital infrastructure with a proper network connection to the students to avoid any disruption to their studies.

Limitations Of Online Education:

Impact on digital learning and skill development, Impact on assessment, remote learning without
connectivity, lack of social relationships, and peer-to-peer interaction have led to a high drop-out rate from schools specially remote rural and tribal areas due to their physiographic location.

Loss of interest among students while spending a long time in online learning, as the students not only lose their motivation to participate but are also stressed and suffer from sleeping order issues;

Lack of online information about specific practical based subjects leads to ineffective communication and fear of the issue among students.

Though hard to teach the practical lessons of subjects in the online mode, most of the institutions opted for blended learning, increasing scope for innovative entrepreneurship.

On the one side, internet availability to students who belong to provincial and rural areas is laced to speed problems. In contrast, on another side, the cost of the internet hinders the proper delivery of study materials by both students and teachers.

The availability of learning devices to the marginally poor at an affordable price, which includes devices like such as laptops, tablets, and smartphones devices

Accessing the internet, viewing the online materials, and solving the online tests create a panic situation among students.

Due to COVID restrictions, students are less interactive as there is no direct contact between students and teachers, which desperately leads to a sense of loneliness.

**Reflections:**

Consequently, further monitoring justified the nature and extent of the impact of the disruption on student learning progress overall. Institutions made additional efforts by raising the scope of entrepreneurship to support teachers, students, and their families., increasing priority on addressing the well-being of members of their (Institutions) communities, and remaining recognized and appreciated by students and staff, who felt supported by their schools. Additionally, students expressed positive attitudes towards their return to regular schooling. They were confident in their ability to apply many of the independent learning capabilities required during phases of remote learning. Most also felt well prepared to engage in distance learning should it be necessary again. Subsequently, these findings were moderated slightly by aspects of societal drawbacks.

Further research and consideration are justified in understanding the factors that led to successful outcomes for some institutions, teachers, and students. Through resilience and extreme effort, the education sector in Visakhapatnam managed additional workload and stress for institutions, teachers, and students during the disruption. Whether such could be possible for more extended periods and what impact they would have on students, student learning progress, teachers, and other members of (institution) communities are questions that remain unanswered.

**Conclusion:**

The epidemic added a new subcaste of complexity to the current extremity for millions of children in India; the lockdown affected the population's socioeconomic and cerebral aspects and oppressively affected most students' academic performance.

Online Education provides an opportunity to keep students engaged and prioritize self-study; the primary challenge remains giving practical assignments through online classes that allow
students to settle back and accelerating literacy programs transitioning from informal to formal education.

Post-epidemic fastening on temporary literacy spaces and support strategies to strengthen students foundational skills in rural India by supporting children from dislocated families, community prioritize cash transfers and learning kits for children with disabilities and migratory population to promote their reintegration into academy with a motive for a progressive education system, Indian institutions conclude to improve it by making education more interactive, showing procedures in real situations, giving brief information, and furnishing 3D virtual tools to mimic the factual situation., therefore promoting augmented learning issues where a class is designed to aid in the progress of verbal capacities, mathematical and psychosocial skills., creation of a skills-structure programme and its delivery to adolescents where they gained precious life chops and specialized skills measuring the impact of different variables on knowledge, numeracy and socio-emotional literacy issues grounded on students position of vulnerability. As the COVID-19 extremity may stretch longer, there's a critical need to maximize the application of online platforms and develop creative strategies to ensure that all children have sustainable access to literacy during the epidemic.

For effective education delivery, the Indian programs must include individuals from different backgrounds, remote areas, and marginalized and minority groups.

Education during extremities and prolonged crises supports quality education for the internally displaced so that no child is left before. The preceptors trained in psychosocial support gain knowledge and skills to identify students who may necessitate intervention and make referrals where necessary. As online practice benefits the students immensely, stakeholders should conclude the amalgamated module for a progressive and structured academic time. However, It's time to mend our ways and understand the openings and challenges of the extremity. We need a new perspective, as the epidemic taught us that the abnormal is the new normal.

Reference


