



E-Learning Challenges in Remote Areas in India: An Empirical Study from Teacher's Perspective

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Abstract

Although the introduction of Covid-19 and the ensuing nationwide lockdown triggered the process, Information and communication technology was destined to change learning pedagogy. COVID -19 led to a transformation in how people worked, lived, and put ideas into practice, much like everybody had been doing during the past few years. India's educational system needs reform as well, particularly in rural areas. The COVID-19 epidemic prompted a lengthy shutdown of every region of the world economy. However, despite this, this was the most severe downturn of the decade and slowed total growth. As with other businesses, the Indian educational system was severely impacted. The number of rural students who attended classes soon decreased, even though urban universities could still offer online courses. Since every child has a right to ongoing education that should not be restricted, providing online learning in rural India was the most significant issue. The purpose of this study is to collect information regarding the difficulties that students in rural areas experience. Samples of 197 respondents were considered to find the result of the study.

Keywords- E-Learning, Rural Areas, Covid -19, Education System, Growth, Challenges, Colleges, Students, Classes.

Introduction:

Changes in the education sector will inevitably occur, given the rapid advancement of technology.

Numerous studies are being conducted to determine the advantages and disadvantages of online learning compared to traditional classroom instruction. There are numerous chances and difficulties for online education in India. In this research, we have highlighted critical characteristics that will enhance online education in India using a thorough literature review. A virus that threatened everyone around the world heralded in the year 2020.

A significant number of people have died as a result of the disease, which is currently circulating.

Both rich and emerging countries searched for a cure even though the condition was at its most severe stages and cases were multiplying exponentially. India launched a lockdown in March to safeguard the people, halting factories and organizations that provide significant sectoral revenues.

The installation of security precautions for sizable meetings, especially those involving kids, such as schools and universities, was another problem. The peak time for all session starts and final examinations was in peril since there were no other possibilities (Prabakaran & Saravanakumar, 2020). The problems were pervasive and grew in an unsettling way. Hunger and unemployment grew in importance as the large assembly dispersed. Instead of illnesses, daily wage and minimum wage employees were passing away from starvation. One solution cannot be adequate to stop the spillover, given the nation's size and the number of recipients. Leakages were growing as people moved back to their hometowns from the metropolis. Rural India was the safest location to live despite having little access to food, transport, or education as the illness moved quickly across urban areas (Radha, 2019). Since rural regions in India still need to catch up to metropolitan areas in many sectors, including the availability of necessities, there is a considerable imbalance between rural

and urban growth in India. The COVID era witnessed the creation of this comprehensive approach, which encompasses all elements required for a country's progress. Indian education tends to do well in terms of the gap between rural and urban regions, as seen by high levels of literacy, low household bills, simple access to technology, etc. Many bright kids' prospects have been wrecked (Saravanakumar & Padmini, 2020). Resuming academic work after a break caused by personal concerns is challenging, not just in Indian societies. How much they can afford to spend for their school while still trying to make ends meet depends on the number of children in the household. This was a reality for many street sellers who left their families in the countryside to work and give money. The difference between urban and rural India is the issue here Saravanakumar et al.,2019). The educational system has also experienced a significant transformation toward online courses and some alternatives that can eliminate the primary obstacles both temporarily and permanently.

Literature Of Review:

In the western world, e-learning has transformed the teaching and learning process from teacher to student-centric. Numerous studies conducted in the west have repeatedly concluded that information and communication technology improves the efficacy and usability of teaching and learning for pupils. Although India joined the internet revolution later than other countries, COVID-19 has made adopting technology necessary in India. As seen in the west, the value and benefits of student-centered learning over teacher-centered learning approaches have been recognized by both the central and state governments. Technology is a fantastic facilitator for promoting this process within our country's teaching and learning community.

Nandal, N. (2020). A new conception of teaching and learning were introduced by the tools and approaches that information and communication technology brought into the field of education.

The learning management system is one of the most important instruments used in educational institutions to support e-learning. Urban and rural communities have a striking digital divide. In order to support and facilitate contemporary education, we provide a concept for delivering e-learning

services to remote and rural locations in this study. E-learning centers are made possible through the Internet by a specialized resource center that hosts the learning management system.

This model's overarching objective is to create a technologically advanced, cost-effective learning environment that allows students to learn about new information and communication technologies online.

Marti & Bolliger (2018). E-learning has been declared compulsory for all academic institutions because of the COVID-19 pandemic concern. E-learning is an emerging trend. Its scope has been expanding. Online learning is the best method for everyone. Many people choose to study when it is most convenient, depending on their comfort and availability. Now, the learner has unlimited access to fresh material. Due to the many benefits, it provides for children. The study's findings show how effective online learning is, how interested students are in using these tools, and how well they succeed. In conclusion, our study demonstrated that E-learning has grown in popularity among students worldwide, especially during the COVID-19 pandemic lockdown period.

Jadhav et al. (2020). The school-level education sector in a country like India is divided into three main categories: primary, secondary, and upper secondary education, followed by higher education, which includes graduation and above. The government has partnered with numerous private technologies infrastructure companies in several states to launch an eLearning effort in various rural areas of India. Both the corporate and governmental sectors in Rural India are implementing eLearning projects. In addition to meeting their basic educational demands, the model the author, developed also addresses their desire for future professional advancement. It is necessary to connect rural Indian education and job options rather than keep them apart.

Cohen et al. (2020). Traces the development of e-learning to the day when the information will be widely available, incredibly abundant, and available in various media. Distance learning is acknowledged and accepted as a means of LIS education. It is explored the idea of open and distance learning. The abilities that LIS workers need to have are also identified in the context of the changing social environment. The article also addresses how the Internet has changed the

teacher's job and what abilities and methods educators will require to be successful and productive in online learning environments. The study gives readers a glimpse into the cutting-edge multi-channel distribution methods used by several universities and how well they work for LIS-distant learners.

Kaplan et al. (2016). The development of internet technology has been seen throughout the last few decades and has been instrumental in education. In particular, in distant places where the situation is worse, e-learning can increase India's literacy rate. According to the report, e-learning has become more prevalent in rural areas due to the less expensive and easy access to the Internet, laptops, PCs, and smart phones. Additionally, with practically every industry being digitalized, it is essential for today's young to be familiar with a variety of digital technologies in order to survive.

Rural youth should be encouraged to use e-learning more frequently so that everyone in the nation, even those living in the most remote locations, may access education.

Jena (2020). We can learn or acquire knowledge, skills, and habits through education. E-learning has expanded the possibilities for the education sector. It offers pupils a new method of learning that will help them advance their knowledge and abilities. We'll also talk about the barriers to e-growth learning's and the variables driving them. The effectiveness of e-learning as a method of education has been examined in this essay. This essay's goals are to comprehend the idea of e-learning and examine the effects of the COVID19 epidemic on the educational system. Rural residents struggle in Covid 19 because they lack the necessary equipment to participate in online sessions, and many locations are plagued by poor internet connections and low capacity.

Jindal & Chahal, (2018) The Indian educational system has been working to adapt to the crises with a new approach and digitize the challenges to remove the threat of the pandemic. This particular essay will analyze the state of internet education in rural India at the moment. This study focuses in particular on the significance and impact of COVID-19 in rural India. According to the pupils' responses, lockdown and COVID-19 appear to have had an impact on rural schooling in India. Due to the lack of competent technology handling instruction for students who reside in rural regions, the

majority of pupils believe that offline education is the best method of learning. I believe that the Government of India should implement certain significant measures for successful education, particularly in rural area.

Alvi & Gupta (2020) . After carefully examining all of the study's findings, it can be said that even if e-learning came to India a little later than it should have, users there undoubtedly accept it.

Similar educational levels to those found in more densely populated places are frequently difficult to reach in rural locations. Though the usage of e-learning is quite low, new technologies are nevertheless making their way to rural areas. All government actions done to ensure that education is available in every part of the nation and to brighten the overall image must be well planned and carried out. It is not just the responsibility of government institutions; a number of commercial sectors also need to change the way they think, foresee problems, and start working to encourage e-learning.

Cohen & Dull (2020). Today, we're discussing India's whole illiteracy rate. Despite a legislation protecting the right to education being established by the government, there is a severe shortage of trained instructors in the nation. If combined with traditional classroom instruction, the E-learning environment can not only augment but also assist the Indian educational system. The Using information and communication technology, interaction between students and teachers can be established in situations when it is impossible to do so (ICT). One-to-one and one-to-many interactions are not obstacles (Stalin et al., 2016). The ever-expanding telecommunications network and the Next Generation Network (NGN) promise to relieve a lot of the pressure on educators and help India become a self-sufficient and educated nation that competes on a global scale.

Objectives:

1. To identify how e-learning impact education system in rural areas.
2. To ascertain problems faced by students in Indian rural regions.

Methodology:

Nature of study is empirical. 197 teachers of various courses belonging to different levels of education were included in study. Structured questionnaire was used to

collect data. To identify outcome of the Mean and t-test were applied. Sampling method was convenience sampling.

Result of demographic:

Table 1 displays gender of participants, male are 55.84%, and female are 44.16%. Age of participants is, below 30 years are 36.04%, 30 - 45 years are 28.93%, and more than 45

years are 35.03%. Regarding the courses or programme levels they teach, Below Intermediate is 24.87%, Intermediate / Graduation is 14.21%, Post-Graduation is 34.01%, and others is 26.91%. Looking at educational institutions the teachers are serving, Schools is 30.96%, Colleges is 31.98%, and Universities is 37.06%.

Table1. Demographic Details of participants

Variable	No. of participants	%
Gender		
Males	110	55.84%
Females	87	44.16%
Total	197	100 %
Age		
Below 30 years	71	36.04%
30- 45 years	57	28.93%
More than 45 years	69	35.03%
Total	197	100 %
Courses / Programmes you are teaching		
Below Intermediate	49	24.87%
Intermediate / Graduation	28	14.21%
Post-Graduation	67	34.01%
Others	53	26.91%
Total	197	100 %
Educational Institution you belong to		
Schools	61	30.96%
Colleges	63	31.98%
Universities	73	37.06%
Total	197	100 %

Table2. Impact and difficulties of e-learning on Indian rural regions

SN	Survey Statement	Mean Value	T- Value	Sig.
1.	Lack of digital infrastructure and skilled faculty	4.33	18.996	0.000
2.	During pandemic students in rural areas faced problems due to closer of schools	4.12	16.098	0.000
3.	Lack of knowledge among teachers in rural regions about e-learning system	4.21	17.668	0.000
4.	Less availability of computers and internet	4.00	14.307	0.000
5.	High cost of internet in rural regions	4.19	17.305	0.000
6.	Introduction of e-learning had made it essential to have proper and complete infrastructure needed	4.10	15.727	0.000
7.	Government and other agencies must provide all the required facilities to support e-learning	3.15	2.165	0.016
8.	Educated and skilled teachers must be appointed to provide e-learning in rural areas	3.12	1.740	0.042
9.	Blended learning must be adopted in rural regions	4.97	28.214	0.000
10.	e-learning is helpful for students to access study material at any time, and at any place	4.31	19.090	0.000

Table 2 shows, mean values of the “Impact and difficulties of e-learning on Indian rural regions” the first statements of T-test is about “Lack of digital infrastructure and skilled faculty” scored the mean value of 4.33, next statement is about issues during pandemic “During pandemic students in rural areas faced problems due to closer of schools” it has scored the mean value of 4.12, third statement is about lack of knowledge “Lack of knowledge among teachers in rural regions about e-learning system” with the mean value of 4.21, next statement tells about unavailability of computers “Less availability of computers and internet” mean value is 4.00. Fifth statement is about high costs “High cost of internet in rural regions” mean score is 4.19, next statement is “Introduction of e-learning had made it essential to have proper and complete infrastructure needed” scored the mean value of 4.10. Seventh statement is “Government and other agencies must provide all the required facilities to support e-learning” mean value is 3.15, next statement is about appointment of skilled teachers “Educated and skilled teachers must be appointed to provide e-learning in rural areas” mean value is 3.12, ninth statement is about blended teaching approach “Blended learning must be adopted in rural regions” with the mean value of 4.97.

Last statement is “e-learning is helpful for students to access study material at any time, and at anyplace” with the mean score of 4.31. T-value of each statement of the survey in the context of Impact and difficulties of e-learning on Indian rural region are significant because t-value of statements are positively significant as the value is less than 0.05.

Conclusion:

Since every advantage of online learning has a disadvantage as well, it is difficult to completely eliminate all of its flaws. However, the future of education is digital. India needs to keep up with developed nations' technological advancements. Indian pupils want improved supplies and ongoing educational updates. This is the ideal time to act and include rural students in the advancement process in order to close the gap between rural and urban areas. Rural India has great potential and aspirations; they just need much more than they currently have. Many things would have changed if the policy framework had been implemented effectively, but the pandemic has created a fresh test and opportunity to create a solid path for kids to travel on and reach success. To overcome the problems and incorporate both rural and urban counterparts in building a great country, the

government requires a comprehensive strategy. Every youngster needs equal distribution when they are granted the right to an education. The fundamental spirit of moving forward depends on overall socioeconomic progress. To find outcome of study mean and t test was applied.

Reference

1. Saravanakumar, AR., & Padmini Devi, KR. 2020. Indian Higher Education: Issues and Opportunities, *Journal of Critical Review*. 7(2): 542-545
2. Kawita Bhatt, RajshreeUadhyay and DhritiSolanki. 2019. Use of E-learning among Rural Youth of Udaipur District of Rajasthan. *Int.J.Curr.Microbiol.App.Sci*. 8(06): 507-510.
3. Nandal, N. (2020). Coronavirus and Its Impact On Stock Market *International Journal of Disaster Recovery and Business Continuity*, 11(1), 943-948.
4. Martin F, & Bolliger DU. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, 22(1), 205-222.
5. Jadhav VR, BagulTD, Aswale SR. COVID-19 era: students' role to look at problems in education system during lockdown issues in Maharashtra, India. *International Journal of Research and Review*. 2020; 7(5): 328-331.
6. Kaplan, Andreas M.; Haenlein, Michael (2016). "Higher education and the digital Revolution: About MOOCs, SPOCs, social media, and the Cookie Monster". *Business Horizons*. 59 (4): 441–50.
7. Jena, P. K., (2020). Impact of COVID-19 on higher education in India. *International Journal of Advanced Education & Research*, 5(3), 77-81.
8. Jindal, A., & Chahal, B. P. S. (2018). Challenges and opportunities for online education in India. *Pramana Research Journal*, 8(4), 99-105.
9. Alvi, M., & Gupta, M. (2020). Learning in times of lockdown: how Covid-19 is affecting education and food security in India. *Food Security*, 12(4), 793–796
10. Cohen, A. K., Hoyt, L. T., & Dull, B. (2020). A descriptive study of coronavirus disease 2019–related experiences and perspectives of a national sample of college students in spring 2020. *Journal of Adolescent Health*, 67(3), 369-375.