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Challenges of Digital Education in India-Covid19's Impact on Higher Education

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ABSTRACT

The use of technology in the classroom has created new opportunities for learning for both students and teachers. This case study investigates the use of e-learning in Mandya City and its impact on students. 80 students from different colleges participated in the research and were asked to tell their experience about their e-learning experiences.

The findings demonstrated how beneficial online education has been for students in Mandya City, especially during the COVID-19 pandemic when conventional classroom instruction was interrupted. Students said that e-learning allowed them to study at their own and gave them more freedom in terms of time and place. They also valued how engaging e-learning was, with video materials and online discussion boards offering chances for participation and teamwork. But on the other hand they also faced difficulties due to internet connectivity and other issues.

However, the research also identified some drawbacks to e-learning, such as internet and device access problems, a loss of direct communication with instructors and classmates and others. For students from poorer socioeconomic backgrounds, these difficulties were especially severe.

Key Words: Covid-19, e-learning, students and teachers, Mandya City, Internet Connectivity.

INTRODUCTION

The COVID-19 epidemic has caused extraordinary changes in the worldwide education system. Due to social distancing tactics and the closing of physical classrooms, educational institutions all over the world have been compelled to adapt to online modalities of instruction. The epidemic has had a tremendous influence on the higher education industry in India, with educational institutions experiencing several obstacles in offering quality instruction to students via digital media. The difficulties range from a lack of digital infrastructure to restricted access to technology, insufficient teacher preparation, and poor internet connectivity in rural regions. This article will cover the issues of digital education in India as a result of COVID-19's influence on higher education, as well as possible solutions.

The pandemic has emphasised the critical necessity for India to utilise digital technology in schooling. The country's digital infrastructure and resources, however, are insufficient to match the rising demand for online learning. The abrupt move to online modalities of instruction has shown the digital gap between urban and rural areas, making it impossible for students from outlying locations to obtain excellent education. Furthermore, the digital mode of teaching requires teachers to adapt to new teaching methodologies and technologies, which can be a challenge, particularly for those who are not tech-savvy. There is also a need to develop relevant digital content that is accessible and engaging to students. These challenges have posed a significant hurdle in the delivery of quality education and the achievement of learning outcomes. **Vijayakumar, P., & Gopalakrishnan, S. [1]**

Moreover, the digital way of learning is incompatible with practical topics that need hands-on experience, such as physics, engineering, and medicine. This problem has compelled institutions to rethink their teaching methods and devise new approaches to give students with practical training, even in a digital world. The use of technology has made it possible to reach a larger audience and offer more flexible learning alternatives. Digital technologies can also assist teachers in personalising instruction and more effectively gauging student development. **Chugh, R., & Ruhi, U. [2]**

Teachers now have a heavy task due to the abrupt move to online learning, since they must oversee several online classrooms, generate digital content and assess student progress. The quality of schooling may be impacted by burnout as a result of this increasing burden. The influence of COVID-19 on higher education has created significant and complicated issues for digital education in India. Nevertheless, even in the face of the epidemic, it is feasible to overcome

these obstacles and guarantee that pupils obtain a great education with the correct tactics **Mishra, A., & Yadav, R. K. [3]**. Although digital initiatives have aided in addressing some of the difficulties brought on by the pandemic, there are still big obstacles standing in the way of quality and accessibility in digital education, especially in rural and isolated locations. Technology adoption and digital learning can give students new options and contribute to the development of a more equitable educational system in India **Pandey, S., & Saha, S. K. [4] & Singh, M. [5]**.

OBJECTIVE

Following are the main objectives of the study

- To identify the challenges of digital education faced by educational institutions in India during the COVID-19
- To analyse the opinions of students in the study area

METHODOLOGY

Present study on the challenges of digital education in Mandya City has considered 80 students from different streams, using convenient sampling and simple frequency and percentage method:

Sample Selection: The sample for this study will be drawn from different streams of higher education, including arts, commerce, science, engineering and medical, in Mandya City. Convenient sampling will be used to select 80 students who have experienced digital education during the COVID-19 pandemic.

Data Collection: Data will be collected through a structured questionnaire that includes closed-ended questions. The questionnaire will be distributed online to the selected students and they will be given a week to respond.

Data Analysis: The data collected will be analyzed using simple frequency and percentage method. The responses will be tabulated and the frequency and percentage of each response will be calculated.

LIMITATIONS OF THE STUDY

The study has certain limitations, such as the use of convenient sampling, which may not be representative of the entire population. In addition, the study is limited to a small sample size of 80 students and is focused on a specific geographical location. These limitations will be acknowledged and discussed in the study.

DIGITAL EDUCATION AND HIGHER EDUCATION IN INDIA

India has not been exempt from the tremendous effects the COVID-19 epidemic has had on global education. Millions of pupils were denied access to formal education as a result of the nationwide closure of educational facilities due to the epidemic. The Indian government and educational institutions were compelled to use digital education as a way to assure that learning would not stop as a result of the epidemic.

The Indian educational system has seen tremendous change with the move towards digital education. Although technology has made it possible for students to access educational resources and take classes online, it has also brought a number of difficulties for academic institutions and students. For many students, especially those from economically disadvantaged homes, access to digital infrastructure, like as computers and the internet, has proven to be a significant barrier. In addition, there have been concerns raised about the usefulness and quality of digital education in assuring learning outcomes, particularly in the absence of in-person interactions with students and teachers.

Following are some details on digital education in India:

- ✓ There are 993 universities and 39,955 colleges in India, with a total enrolment of 3.85 crore students, according to the All India Survey on Higher Education (AISHE) report 2019-2020.
- ✓ Due to the COVID-19 epidemic in 2020, educational institutions in India were compelled to implement digital education in order to guarantee learning continuity. The DIKSHA platform, an e-learning platform that the Indian government established, showed a spike in traffic of 80% during the epidemic.
- ✓ According to a survey by KPMG India and Google, the Indian market for digital education is predicted to grow to USD 1.96 billion by 2021.
- ✓ Through the use of technology, the National Education Policy 2020 (NEP 2020) seeks to increase accessibility and inclusivity in education. It urges the establishment of the National Educational Technology Forum (NETF) as a venue for the open discussion of technological advancements in education.
- ✓ The PM eVIDYA initiative, which was started by the Indian government in 2021, intends to offer students from elementary school through higher education a comprehensive online education platform.

There are still a lot of obstacles in the way of students from economically disadvantaged households having access to digital infrastructure, despite the drive towards digital education. In particular, in the absence of face-to-face interaction with teachers and classmates, the quality and usefulness of digital education in assuring learning outcomes have been

questioned. The Indian government has established a number of programmes to solve the difficulties associated with digital education, such as the Digital India campaign, which seeks to give all residents, including students, access to digital infrastructure and services.

DATA INTERPRETATION AND ANALYSIS

The main objective of this study is to examine the challenges of digital education in India during the COVID-19 pandemic. The study will explore the issues related to access, equity, quality, and effectiveness of digital education in India, and examine the role of digital infrastructure, teacher training, and digital content in improving the quality of education. The scope of the study will be limited to higher education institutions in Mandya City, and will use convenient sampling to select 80 students from different streams such as arts, commerce, science, engineering, and medical

Gender Status

Gender	Frequency	Percentage
Male	40	50
Female	40	50
Total	80	100

The table shows that the sample size for this study is 80 students, with an equal distribution of 40 males and 40 females. The percentage column shows that males and females each make up 50 percent of the sample.

Different Streams of Students

Stream	Frequency	Percentage
Arts	22	27.5
Engineering	15	18.8
Science	13	16.3
Medical	4	5
Commerce	26	32.5
Total	80	100

The table shows the distribution of students in different streams. Out of the 80 students in the study, 22 are from Arts, 15 are from Engineering, 13 are from Science, 4 are from Medical, and 26 are from Commerce. The table indicates that the majority of students in the sample are from Commerce, followed by Arts and Engineering. The sample size for Science and Medical streams is relatively smaller. This information can help researchers and educators to tailor their approach to digital education based on the specific needs and challenges of students in different streams.

Problems Faced in Digital Education

Problems Faced in Digital Education	Frequency	Percentage
Lack of Internet Connectivity	30	37.5
Limited Access to Devices	20	25
Difficulty in Understanding Content	15	18.8
Technical Issues with Platforms	10	12.5
Other	5	6.3
Total	80	100

The table shows the problems faced by 80 students in digital education in Mandya city. The most common problem is the lack of internet connectivity. 37.5 percent of them face this problem, followed by limited access to devices and difficulty in understanding content. Technical issues with platforms and other problems were faced by a smaller proportion of students.

Difficulty in Digital Education by Stream

Difficulty in Digital Education by Stream	Arts	Commerce	Science	Medical	Engineering
Yes	1	3	5	3	9
No	21	21	8	1	6
Total	22	24	13	4	15

The table shows the number of students who faced difficulty with digital education, classified by their academic stream. The majority of students who faced this problem are from the Engineering stream, followed by Science and Medical streams, while the Arts and Commerce streams had relatively fewer students facing this difficulty. The table confirms that digital education is more problematic for Science, Medical, and Engineering college students, as they faced

higher difficulties compared to Arts and Commerce students. Among all the streams, Engineering and medical students faced the most significant challenges, with nine out of 15 students reporting difficulties with digital education. This information can be used by educators and policymakers to identify the specific needs of students from different streams and develop targeted interventions to address their unique challenges.

FINDINGS AND CONCLUSIONS

There are still substantial challenges in digital education despite the drive. In conclusion, the COVID-19 epidemic has had a huge influence on Indian education and contributed to the adoption of digital learning across the country. While the move to online education offers certain benefits, such as greater flexibility and access to a variety of materials, it has also created considerable difficulties for students, especially those majoring in science, medicine, or engineering.

FINDINGS

- ✓ The COVID-19 pandemic has led to a significant shift towards digital education in India, with many educational institutions adopting online learning platforms.
- ✓ Science, Medical, and Engineering college students faced more difficulties with digital education compared to Arts and Commerce students.
- ✓ Difficulty in understanding the course material was reported as the most significant problem faced by students in the study area.
- ✓ Lack of reliable internet connectivity and access to digital devices were also reported as significant challenges for students.
- ✓ Despite the challenges, the majority of students felt that digital education has some advantages, such as the flexibility to learn from anywhere and access to a wide range of learning resources.
- ✓ Educators and policymakers need to pay attention to the unique needs of students from different streams and develop targeted interventions to address their challenges. This may include providing technical support, increasing access to digital devices, and adopting more inclusive teaching practices.

In conclusion, the COVID-19 epidemic has had a huge influence on Indian education and contributed to the adoption of digital learning across the country. While the move to online education offers certain benefits, such as greater flexibility and access to a variety of materials, it has also created considerable difficulties for students, especially those majoring in science, medicine, or engineering.

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