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IMPACT OF LOCKDOWN ON EDUCATION IN INDIA

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ABSTRACT

The Covid-19 pandemic has caused an unprecedented damage to the education and learning process globally. Schools, colleges and offices were all forced to shut down indefinitely as per the government norms to ensure social distancing to curb the transmission of the deadly virus. The unanticipated shift of the learning process from traditional classroom to a digital platform has not only created a digital divide but also caused enormous amounts of learning loss. Many learners had no option but to drop out of schools which was marked by a significant spike in the unemployment rate and child labour. We conducted a survey of the undergraduate students from various universities across the city of Bangalore. Responses were collected from 105 students regarding their opinion on different aspects of online education during the ongoing pandemic. 41.3% of the students from the city reported that they faces hindrances due to Internet connectivity, more than 50% of the students have expressed that the online mode of education is strenuous and is affecting them both on a physical and mental level. The paper also highlights the reformed standards of the new education policy and also the measures undertaken by the Government of India to render seamless education in the country.

Keywords: *COVID-19, Pandemic, Online-Education, Impact, Govt. of India*.

Introduction

The novel human Coronavirus disease also known as COVID-19 was first reported in Wuhan, China in December 2019, and subsequently spread throughout the world within a few months. The Covid-19 disease was officially named as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) by the International Committee on Taxonomy of Viruses and was later named as COVID-19 by the WHO. Now COVID-19 has become the fifth documented pandemic after the 1918 flu pandemic and was declared a pandemic by the World Health Organization on 11th March 2020.

The Covid-19 pandemic severely affected the educational systems worldwide. In an attempt to reduce the spread of Covid-19 as it transmits from person to person, most of the governments decided to temporarily close all the educational institutions in the spring of 2020. These lockdowns have interrupted conventional schooling with nationwide school closures. India witnessed an unprecedented nation-wide lockdown in the months of March and April 2020 limiting movement of the entire 1.38 billion population of India as a preventive measure. Till date, there have been four lockdowns (25 March 2020–31 May 2020), and two unlock periods (1 June–31 July 2020) in India.

The coronavirus pandemic has caused a turmoil in the education sector at the fundamental level round the globe. As of 12 January 2021, approximately 825 million learners have been currently affected due to school closures in response to the pandemic. In India, a figure as huge as 32 crores turns out to be the count of the number of learners who have been affected due to the lockdown. The education graph has undergone a complete unprecedented change. The change is totally regardless of the age. Starting from toddlers to working professionals everyone had no choice but to accept the new stipulated mode. Schools, colleges and universities started online classes using platforms such as Microsoft Teams, Google Meet, Zoom and many more. Offices opted for the remote mode of working. Private institutes in no time designed their own learning management systems. It was the government institution that majorly paid the cost of the restrictions inflicted. A recent study suggested that more than 23 crores

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of Indians earn less than Rs 375 per day. Therefore the educational institutions run by Indian Government form the bulk of the students in our country and these institutes were disrupted completely due to the lockdown. The closure of the schools and the shift of the education paradigm from traditional classes to online platforms is not only creating a disparity and digital divide but also the number of students who were forced to drop out of school have increased exponentially.

Purpose

According to a report published by Deloitte Internet Penetration in rural India is merely 29% against the national average of 51% with roughly 687 million subscribers. Though India's Broadband subscribers have increased since the last two years, the fixed broadband penetration is unfathomably low. The mass adoption of Broadband Access is impeded in India majorly because of digital divide and illiteracy, cost of infrastructure deployment and the onerous access to such affordable devices. Unhindered high speed and reliable broadband access is a must for the mass adoption of the shift towards the digital paradigm. According to another study, the number of male internet users is significantly more than the number of female internet users in rural areas. The number of students who have dropped out of school has also shown a striking rise. In the wee morning hours, learners in rural areas are occupied with farming and other household chores. Surveys conducted have revealed that these learners residing in rural India have no choice but to run these errands as many families are devoid of a constant source of income due to the lockdown. According to a report by UNESCO, approximately 23.8 million learners have a potential risk of not returning to schools. As per reports there is 105 percent increase in child labour during the pandemic. The unemployment rate had shot up to 7.11% during the initial months of lockdown according to an analysis by the Centre for Economic Data and Analysis (CEDA). Rampant unemployment, economic crisis has jeopardized the ability of households to pay for schools and afford the education of their wards.

The shift in learning paradigm has created a huge chasm both in the quality and quantity of education delivered. Another major stumbling block in the course of acceptance of online education systems is the lack of effective two way communication. There is a reported lack of representation of the online broadcasted lectures in local languages resulting in a learning divide. The scheduled exams could not be conducted due to unavailability of classrooms as the government had strict guidelines to follow norms of social distancing. The switch towards the digital mode of education is not available to Tier 2 and Tier 3 of society which once again created a huge disjoin. Scholarships and special aids are the need of the hour to support the rural learners majorly from dropping out. The paramount question that pops up is "Is India really ready to accept online education from all aspects?".

Methodology

In order to address the shift in learning paradigm in India, we conducted a survey in which we asked the undergraduate students from various universities in the city of Bangalore about their opinion on different aspects of online education during the ongoing pandemic. The survey restricts to only the urban student population of Bangalore. The survey was conducted via Google Forms and the link to the form was circulated via social media to obtain a diversified response.

Data Collection

Responses from 105 students were received and analysed. The overall UG response can be summarised in Figure 1, demonstrating that more than 50% of the responses were from students affiliated with the Science background, followed by 22% from commerce, 9% from BCA, 5%, 6%, 7%, 2%, 2% from Law, Arts, BBA and Pharmacy respectively. A questionnaire with 9 statements related to online education during the COVID-19 pandemic (Table 1) was prepared. The students had to respond to each statement on a 4-point Likert scale where a score of "1" represents "Not affected" and a score of "4" represented "Severely affected."

Questionnaire Statements (Table 1)

Statements

- Where the students had invested?
- Branch wise procurement of loans
- How did the Internet Connectivity impact Education
- How did the overall health (mental and physical) get affected?
- Was the performance affected due to online classes?

- Were the lab classes conducted efficiently?
- Was online education adequate for online exams?
- Did your future plans get affected?
- Can online education be the future?

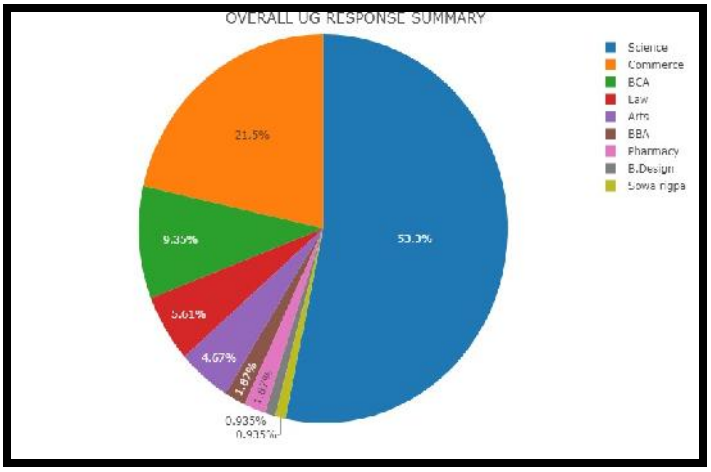

Figure 1

Analysis

The data collected was analysed using pie charts and bar plots for each statement present in the questionnaire. After thorough analysis, the following report was prepared demonstrating the current state of online education in India and its impact on the students.

Results

- **Infrastructure Deployment**

1) Where have the students invested?

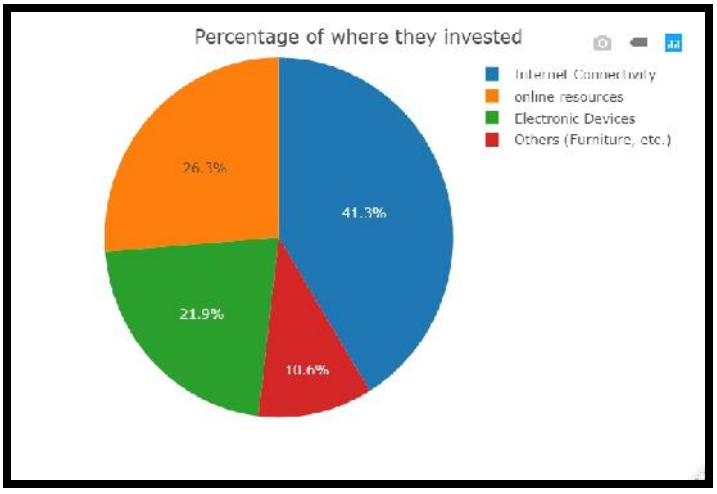

Figure 4a

Table 2

Investment Made	Number of Students
Internet Connectivity	43
Online Resources	28
Electronic Devices	23
Others (Furniture, etc.)	11

41.3% of students had to invest in setting up a basic Internet connection. 26.3% of students invested in accumulating online resources. 21.9% had to invest to buy electronic devices. 10.6% of students invested in buying furniture (study table and more).

2) The number of students who had to procure loans

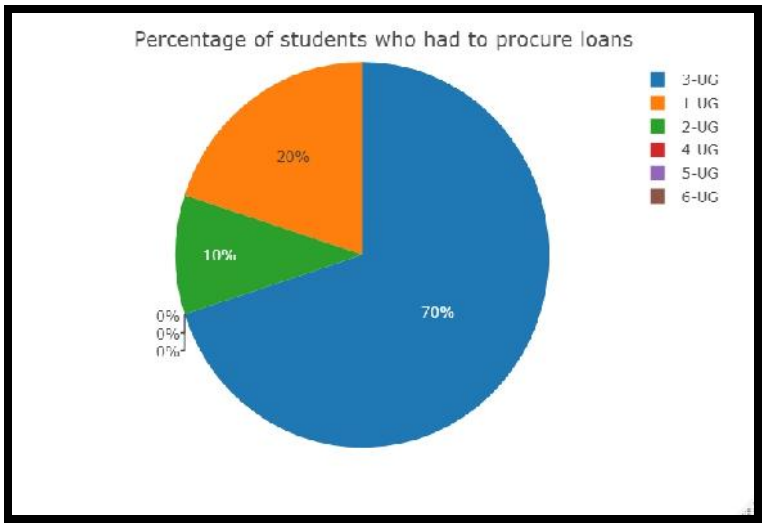

Figure 4b

Branch-wise Procurement of Loans	Number of Students
3-UG (Science)	75
1-UG (Commerce)	**20**
2-UG (BCA)	10
4-UG (Law)	0
5-UG (Arts)	0
6-UG (BBA)	0

Majority of the students, around 70% from the Science discipline, have reported that they had to procure loans. Around 20% from Commerce and 10% from BCA reported the same. Students from Law, Arts and BBA haven't reported any need for procurement of loans.

- **Connectivity Issues during Online Classes**

Effect of Internet Connectivity

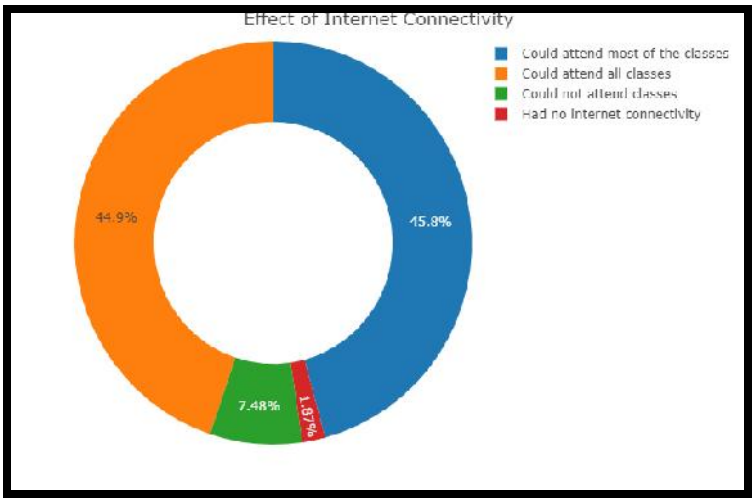

Figure 4c

Effect of Internet Connectivity	Number of students
Could not attend most of the classes	48
Could attend all classes	47
Could not attend classes	8
Had no Internet Connectivity	2

Majority of the students reported that they could not attend most of the classes (45.8%), followed by 44.9% of the students who attended all the classes. Out of the total number of students, 2 of them reported that they had no internet connectivity and hence could not attend the classes.

- **Overall Impact**

1) Effect on Health

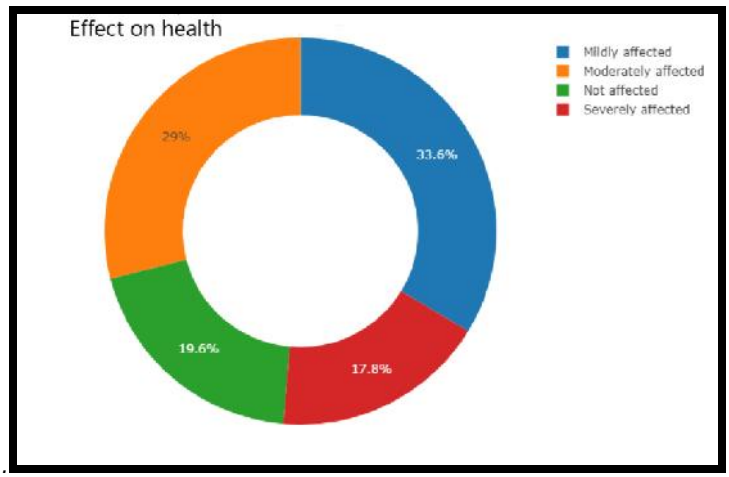

Figure 4d

33.6% of students have reported that they were mildly affected . Around 29% were moderately affected. 17.8% of students have reported that they were severely affected. Only 19.8% of students remarked that they were not affected.

2) Effect on Performance

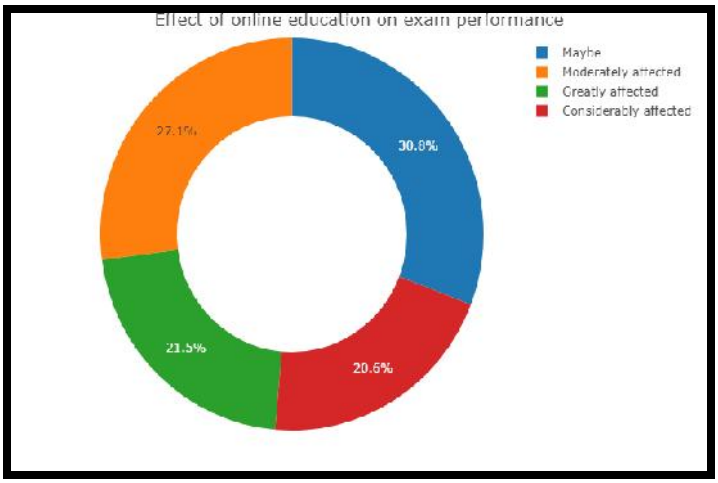

Figure 4e

30.8% of the students reported that their exam performance was maybe affected by the online mode of education, followed by 27.1% of students who reported that their exam performance was moderately affected. 21.5% and 20.6% of the students reported that their exam performance was greatly and severely affected due to the online classes.

(i) Effect on Lab Conduct

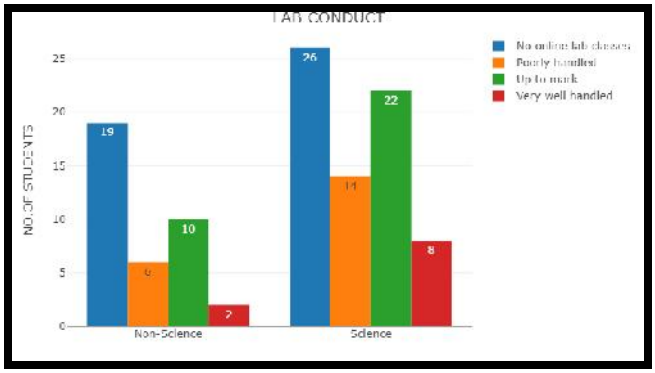

Figure 4f

The science students were significantly affected due to the online conduct of the lab classes.

(ii) Adequacy for Competitive Exams

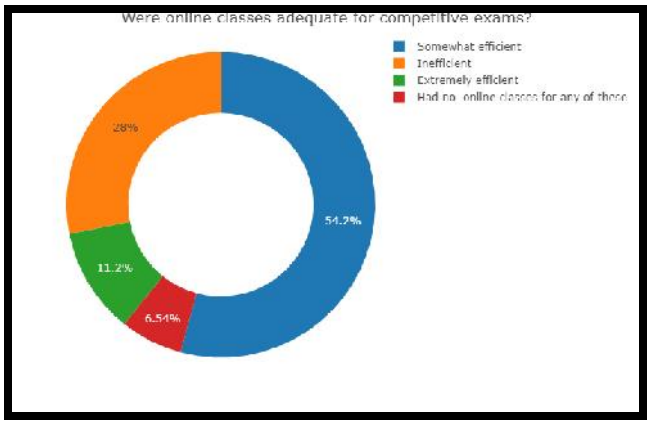

Figure 4g

Majority of the 54.2% students reported that the adequacy was somewhat efficient. 28% of the students marked it as inefficient. Only 11.2% of students reported that it was extremely efficient.

(iii) Effect on Future Plans

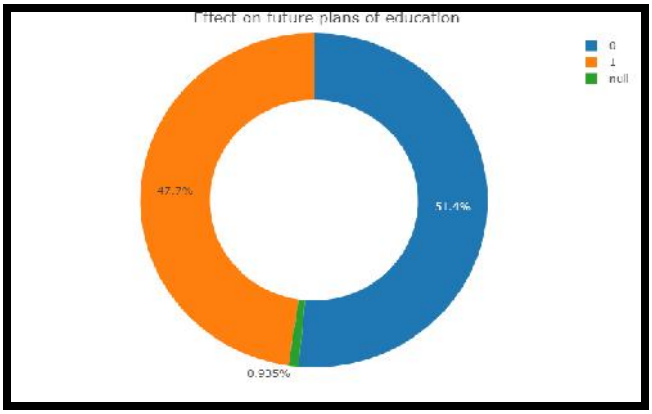

Figure 4h

Majority of the students (51.4%) reported that the online medium of education did not have an effect on their future plans, followed by 47.7% of the students who reported that the online classes affected their future plans of education.

- **Acceptance**

Preference for Online Education

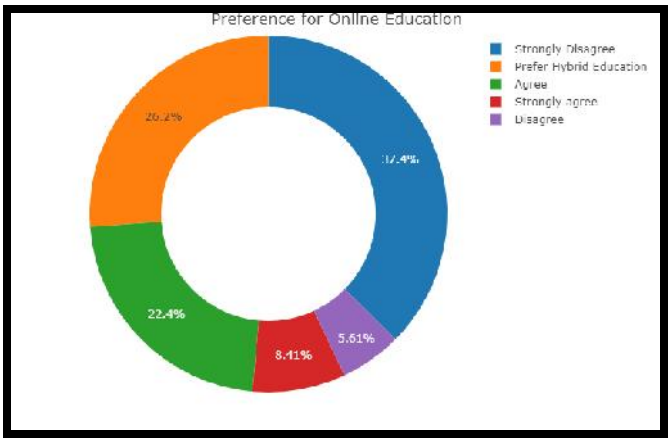

Figure 4i

It was reported that 37.4% of the students strongly disagree with the online mode of education, followed by 5.61% of the students who disagree with the online mode of education. 26.2% of the students preferred hybrid education. 22.4% and 8.41% of the students agree and strongly agree with the online mode of education respectively.

Interpretation

The above results can be interpreted as:

- **Infrastructure Deployment**

With reference to *Figure 4a,* almost 41.3% of students had to invest in securing a reliable high speed Internet connection. The data for the survey had been collected from urban society where people reported to have a steady average source of income during the lockdown. The urban population also has round-the-clock access to electricity with assured back-ups. Rural India is exempted from such amenities. Majority of the learners couldn't afford the cost of securing an Internet Connection. Another huge obstacle that went unnoticed was still many corners of India do not have access to constant sources of electricity. Therefore the shift towards digital learning has impeded the course of education magnanimously. The figure also tells us the other different investments that had to be made to ensure an uninterrupted learning process. It is highly unlikely for the learner in rural India to be able to make such extended investments during a time frame when many families had lost a steady source of income. Children and young people from the poorest households, rural and lower income states are falling even further behind their peers and are left with very little opportunity to ever catch up. (Unicef)

- **Effect of Internet Connectivity**

With reference to Fig. 4c, the urban survey states that around 45.8% students could successfully attend most of the classes. They might have missed out on one or two lectures in a week due to bad weather or minor power cut problems. 44.9% students could successfully attend all the lectures. Cumulatively approximately 9% of the students faced problems in attending lectures, either they couldn't attend or they didn't have an internet connection. As per studies, the number of students who couldn't attend classes in rural surveys increases exponentially attributing to internet and electricity issues.

- **Effect on Health**

The pandemic has affected almost every aspect of human life, the most important being the impact on the overall health of the students, whether it's the mental health, physical health or a combination of both. As far as the physical health of the students is concerned, increasing eyesight problems with frequent headaches are attributed to prolonged screen time. In addition, increasing anxiety and depression due to home confinement along with sleep disorders are also on the rise. As far as their mental health is concerned, with online classes, students experience increased fatigue, headaches, lack of motivation, avoidance/procrastination, ineffective time management, feelings of isolation due to limited socialization in-person, minimized awareness and understanding of others created by in-person dialogues. (Narayan Health)

With reference to Figure 4d, 29% and 17.8% of the students reported that they were mildly and severely affected respectively, thus giving us an insight of how the online mode of education has affected the overall health of the students.

- **Effect on Performance**

The pandemic clearly took a toll on the overall health of the students. Health and performance are positively interrelated to each other. If a student is physically or mentally ill, then it directly affects the performance of the students. With reference to Figure 4e, 21.5% and 20.6% of the students reported that their performance was greatly and severely affected respectively due to the ongoing pandemic. With increasing anxiety, increased fatigue, lack of motivation and concentration, the performance and efficiency of the students was impacted to a great extent.

- **Preference for Online Education**

With reference to Fig 4i, cumulatively more than 50% of the students were against the online system of education and have shown preference towards hybrid education. Only 8% of students have shown their preference towards online education. The preference for an online system of education is significantly less even in an urban survey. Indian education system is not moulded for online delivery of content. Teachers and other faculties had to undergo training to understand how to connect better with the students using a digital platform for better delivery of content. Students have reported a significant learning loss due to the online pedagogy. Therefore the future of Indian Education cannot be dependent solely on a digital platform.

Initiatives Undertaken by the Government on Education during the Pandemic

The lockdown has accelerated adoption of digital technology. Online learning is the only viable solution to carry out the learning process during these covid times. The digital India vision of the government is emerging as a vital tool for solving the present crisis due to Covid-19. It is a fact that technology-based education is more transparent with all respect. Looking at this challenge of colleges and schools being shut, the government of India, as well as state governments and private players have undertaken proper initiatives. (Kumar Jena). The Human Resource Development Wing of India (MHRD) has arranged various online portals and educational channels which are telecasted directly to Tv and Radios for students to continue learning. The ICT Initiative of MHRD is a special platform which is a combination of all digital resources essential for online learning.

Some of the digital initiatives taken by the MHRD for secondary as well as higher education during covid-19 have been listed below:

- **Diksha is a** portal that contains e-Learning content for students, teachers, and parents aligned to the curriculum, including video lessons, worksheets, textbooks and assessments. It is a unique app that requires students and teachers to SCAN the QR code available in the book in order to access the prescribed learning material. With more than 80000 e-Books solely created to train and enhance the learning of Class 12^{th} students, the aim of CBSE, NCERT and States or Union Territories is to ensure that the students do not miss out on learning in case they miss out on physical classroom learning. (Kumar Jena)
- **e-Pathshala** is an e-Learning app by NCERT which can be assessed in multiple languages for classes 1 to 12. The app houses books, videos, audio, etc. aimed at students, educators and parents in multiple languages including Hindi, Urdu, and English. In this web portal NCERT has deployed 1886 audios, 2000 videos, 696 e-Books and 504 Flip Books for classes 1 to 12 in different languages. (Kumar Jena)
- **Swayam** is the national online education platform hosting 1900 courses, for class 9^{th} to 12^{th} and also for the aspirants seeking undergraduate and postgraduate level degree providing study material at one destination. Provides materials for all subjects including engineering, humanities and social sciences, law and management courses and it is integrated with the conventional education.
- **Swayam Prabha** has 32 DTH TV channels transmitting educational contents which run 24x7 for the students. Everyday new content of at least 4 hours duration is floated on the website which runs 5 times in a day. Top education bodies of the nation such as NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS provide content to INFLIBNET Centre which runs these channels. Students from class 1^{st} to 12^{th} and UG and PG level aspirants can get access to interactive learning through this medium. (Kumar Jena)

Discussions

The Education Ministry has been renamed by MHRD (Ministry of human resource development). The Education Ministry has set up a new education policy with a new aim to reform the existing education system of India. The New Education Policy (NEP) has few salient standards to be incorporated which have been discussed ahead. Teachers should be given ample amounts of training so that they can handle the online platforms easily and efficiently all by themselves. The primary aim is to improve the interaction and engagement between students and teachers through various resources.

Television, radios and community radios should be used to telecast pre-recorded classes in various local languages so that the study materials can be easily accessed by the students. The online content should also be made available to the students and teachers in their medium of instruction. An online framework designed by government bodies like School Boards, NTA, or PARAKH will be used to assess the performance of the students as per the updated standards of digital education. The main aim of the new education policy is that the traditional ways and modes of learning should not be compromised while promoting the growth of digital learning and education. Only the most appropriate mode of blended learning will replace the traditional mode of learning. As supported by the results with reference to Figure 4i 26.2% of the students preferred hybrid education, which is a combination of both offline and online medium of education. A Dedicated Unit for Digital Education will be established in the MHRD which will look after the digital learning needs of both schools and colleges. It will comprise experts from the field of education, educational technology, administration, e-governance, digital pedagogy, and IT. These experts will work on delivering high-quality education to the students and resolving their queries. (Shail Srivastava)

Moreover the standard of the content and technology for digital education will be set by the NETF and other appropriate bodies which will enable the government to set guidelines for classrooms, E-learning, and methods for digital learning in India. Even if the COVID-19 crisis stretches longer, there is an urgent need to take efforts on maximum utilisation of online platforms so that students not only complete their degree in this academic year but also to get ready for the future digital oriented environment. India should develop creative strategies to ensure that all children must have sustainable access to learning during pandemic COVID-19. The Indian policies must include various individuals from diverse backgrounds including remote regions, marginalised and minority groups for effective delivery of education (Kumar Jena).

Acknowledgement

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