

## IMPACT OF COVID-19 ON EDUCATION SYSTEM IN INDIA: CHALLENGES, OPPORTUNITIES AND TASK AHEAD

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### ABSTRACT

Country's education system has not been escaped anywise from the incidence of COVID-19 crisis. Problems such as region and gender specific digital divide came to our notice when all educational institutions were ordered to close and there was a terrible reliance on digital education. On the other hand, the increasing emphasis on online education system gives rise to second best alternative way out to combat the stagnancy of entire education system of India. In spite of continuous efforts by both the central and state governments in expanding the system, 100 percent of the student population could not be covered under e-learning. In the absence of classroom learning, learning gap has been developed because of economic hardship, patriarchal societal structure, inequality in having digital device and carrying its usage costs, incognizance about the e-learning concept, digital illiteracy among smart phone users etc. Needless to say, the appropriate integration of classroom teaching in collaboration with e-learning will serve a new dimension to the entire education system through the expansion of inclusive education system in the near future.

**Keywords:** COVID-19, learning gap, digital divide, e-learning, blended learning, India

### INTRODUCTION

A Novel Corona virus (ncov) which was first identified in the Wuhan city of China has plunged the entire world into a deep crisis. It is an unknown danger to the whole world in the sense of its nature, gruesomeness and remedies. In terms of its severity of human to human transmission rate it is far more deadly than previous virus outbreaks. The outbreak was declared as a pandemic by World Health Organization (WHO) on 11<sup>th</sup> March, 2020 when cases continued to rise outside China. In mid-March, 2020 more than a million people in 114 countries were reported to have been affected and several countries had to choose the path of lockdown ignoring the financial losses as there was no definite remedy. In those sectors where the far-reaching evil effects of the pandemic have been densely realized, the field of education is one of them. Education sector has been severely affected as all the educational institutions are physically closed which affects almost 157 crore students across 191 countries (UNESCO). The impact has been felt a little more in those countries where there is low resilience to shocks, the learning outcome is already low and the dropout rate is also high.

Since this pandemic has created an unbridgeable distance among people worldwide, therefore it has inevitably disrupted the exploration and connections of international education. Nearly 1.8 billion students around the world had to face an unimaginable uncertainty and fear about their syllabus completion, exam schedule, internship and qualitative face to face interviews, paid student jobs, conference participation, finalization of thesis and much more due to closure of schools and higher education institutions. International students who could not return home, had to spend days being isolated and stranded in their student home. Even they have had to face financial problems to pay their bills.

Institutions which are highly dependent upon international students on the financial front have been affected severely because of the restrictions imposed on cross border movement. In 2018-19 US, Canada and Australia have collected \$8.13 billion dollars revenue for Indian students alone (Suvarna 2020). In 2019, about 588728 students left India and went abroad for studies and in this case US, Canada, Australia and China are quite famous destinations. India is the second largest international student body after China.

It has been reported in a longitudinal survey that over the past months students' appetites show a decreasing trend especially during the period of lockdown (Schulmann 2020).

A survey that has been conducted considering 583 students across six continents (Africa, Asia, Oceania, Europe, North America, and South America) has shown the fact that although most international students feel that this pandemic has done extreme breakdown to their academic work, on the other hand despite the fear and loneliness

created by the crisis, 83.8% students want to return to their current educational institutions in order to pursue their studies (Amoah and Mok 2020).

Moreover it seems to be a struggle period for all students and teachers around the world to get accustomed readily towards the new ways of exchanging education beyond the boundaries of traditional education system. Although the technology based education plans were started long before the corona crisis in many countries but after the virus outbreak it has become an emergency. For instance in America, in 2018 compared to 2011, the use of smart phones and tablets among eight years old children has increased close to 60%. Countries around the world, both developed and developing have taken the initiatives to implement virtual schooling effectively based on their resource base.

In India nationwide lockdown was announced by Prime Minister on 25<sup>th</sup> March, 2020 which leads to close all levels of educational institutions. Usually every year at this time entrance tests of various universities and colleges, competitive examinations, board exams and of course school admissions are done. More than 32 crore students in Indian schools and colleges have been the victims of the situation in an anxious and unimaginable way (UNESCO). If only the focus is on school level estimates, there are total 1467680 recognized schools with a break up of 1072836 Government schools and 349412 private schools in the country (DISE 2016-17). Students from classes 9 to 12 who are going to sit for the board exam have been severely affected and their number is more than 13 crore (Kumar, 2020). If we talk about the number of institutions in higher education, India had 900 universities and 40000 colleges (Economic Times, 2019). The total enrolment at the higher education level has been estimated to be 3.74 crore (Mint 2019). Due to nationwide lockdown and various restrictions all academic activities of higher education institutions are suspended, which affects a large chunk of students. A survey during 7-30<sup>th</sup> June 2020, across 15 states with 7235 households conducted by an NGO revealed the fact that children from 62% households are being affected by this crisis. The closure of schools, colleges and universities appear to be a huge loss in student fundamentals, human capital formation as well as economic opportunities in the long run.

Under this backdrop, this paper attempts to examine the impact of COVID 19 on the education system in India and the Government policy initiatives to cope up with the new normal situation in Imparting education. The overnight transformation of traditional classroom education into online learning without any prior plan threw away the Indian education sector in the face of some questions. This new mode of learning has some opportunities as well as some risks. For convenience this paper is divided into five sections. Section I examine the impact of COVID 19 on School Education, Section II highlights the impact of COVID 19 on Higher Education. Section III explores the Government policy initiatives in combating COVID threat in education including the role of media. Section IV sheds lights on the Emerging challenges of e-learning and how to mitigate these challenges. The conclusion appears in Section V.

## SECTION - I

After the announcement of the lockdown on 25<sup>th</sup> March, 2020, when all types of educational institutions were closed indefinitely, there was no other option but to start online classes immediately.

There are 1467680 schools in India, of which there are 1072836 government schools and 349412 private schools. About 2.01 million children are in government schools from class I to VIII and 3.8 million children are in classes IX to X. 29% of India's population are children and there are 19.29% children belongs to the age group of 6-14 years (DISE 2016-17).

All schools in the country have been closed since March 2020. Many examinations have had to be cancelled across the country. Even secondary and higher secondary examinations have been cancelled keeping in mind the enormity of this danger. Starting from pre primary children to 12<sup>th</sup> graders all have been suffered due to this.

If started with very young children who have barely set foot in school or about to do so are the most vulnerable ones. Early childhood education is as useful as critical to a child's overall development. According to global research 85% of brain development in children occurs at young age. This is the age when an association is formed between a child, their parents and teachers. At this crucial age children learn their own habits, emotional skills and social interactions. It turns out that this level of learning can contribute around 1.3 to 3.5 percent of their total income in their adulthood. So it can be called a kind of emergency to keep up early childhood education in an uninterrupted manner even during lockdown (Pant 2020). There is also evidence of an increase in child abuse cases during the lockdown.

A telephonic survey has been conducted on May, 2020 by Centre for Budget and Policy Studies over 733 odd students (253 boys, 480 girls) in classes VII and VIII selected from ten Government schools in Patna and Muzaffarpur districts in Bihar in order to understand how children are facing this tough time and how much they are benefitting from online education. The survey found that 28% children (202) have no phone, 21% children (154) could not be reached as their phone numbers were not active, 38% children (277) have smart phones and 16% children (114) have other phones. A notable feature pointed out by the survey is that, boys (36%) are more likely to use smart phones than girls (28%) and the family with no phones had a greater representation of girls. 95% of 277 cases, who have a smart phone, is mostly owned by a male member. Half of those who have a smart phone do not have the means to buy an internet package. 13 students (10 girls and 3 boys) could not be found because the adult parent who picked up the call refused to hand over the phone to the child. In some cases it has also happened that the male members of the household wanted to participate in the survey themselves instead of their daughter. In case of girls it has been observed that when they are not going to school or the school is closed, they ended up doing plentiful household chores. The role of girls in watching educational programs on TV is also limited in some cases. The Bihar government telecasts an hour-long daily educational program through a free channel between 9 am to 10 am, and at that time most of the girls and in some cases boys are busy with household chores. Even in UP there is evidence of increasing marital pressure on girl child from their parents. The survey found that about 28 % of fathers and 40% of mothers had no educational qualifications and no parents were found to have crossed college boundaries. About a quarter of 733 students live in a small kutchra or semi pucca one-room houses with no toilets and no space for keeping books or other stuffs. At least one member from one third of families has seen to migrate outside for work. Some parents have said that they have to use the money transferred to the children's account for books, scholarships and other schooling purposes to survive in this tough time (Jha and Ghatak, 2020).

Annual State of Education Report (ASER) survey which was conducted in the month of September 2020, pointed out that during school closures children in different states of India have been suffered from non availability of textbooks. In Andhra Pradesh the percentage of text book availability is the lowest (< 35%), in Rajasthan it is 60% and in West Bengal, Nagaland and Assam it is above 98%. Variation also exists among children belonging to different states in terms of gaining study materials or activity tasks given by schools. In Bihar it is less than 8%, in West Bengal, Rajasthan and Uttar Pradesh it is 20% and in Himachal Pradesh, Punjab, Kerala, Gujarat it is above 80%. However, only 11% of those who studied at least a little had access to live online classes, while 21% of them had access to recorded class videos. Only 60% children studied through text books and only 20% children studied through television. In terms of learning during school closure Kerala remain in the top position and Andhra Pradesh remains at bottom. The weeklong survey has revealed the fact that the reason is not always about technology because despite having smart phone some children still did not receive any study material. This nationwide survey was carried out via phone calls this year over 52227 rural households having school age children across 30 states and union territories. Compared to 2018, non enrollment percentages (5.3%) of 6-10 year olds and enrolment percentages of 15-16 year olds are on the rise this year and also government schools are more preferred than private ones in this regard. In comparison to 2018, Smartphone access is also increased this year and during lockdown 11% families have availed this access. WhatsApp is used by majority of students for getting learning materials. The survey also identified the relationship between parental education level and learning activity during school closures. It has been observed that the propensity to receive study material was growing from 20% to 46% respectively for parents with educational level less than five years to parents with education level beyond class IX. The number of children who did not receive any kind of learning materials and have not been able to study at all is much higher in low education households (40%) than higher education households (17%) (The Hindu 2020).

A discriminatory effect has been seen about online learning between public and private schools resulting from schooling infrastructure and parent's economic inequalities. Most government schools in different states do not have safe drinking water, toilets, hand washing facility, cramped classrooms, electricity services and most schools are more than 1 km far away, which are all basic prerequisites for reopening schools. On the other hand again about 9.12 crore Indian public school students have been deprived of cooked mid day meal for a long time. It turned out that malnutrition may be one of the reasons for dropping out of school for many children in the coming days. The matter of virtual learning is just an easy task for English medium students and teachers due to ready availability of tools and content but it's really a difficult task for students studying in vernacular language schools. On the other hand private schools are facing losses as they are not getting school fees from parents due to school closure.

In some Indian states the pandemic has led to economic hardship for lower income families who are dropping their children out of private schools. In Ernakulam, around one third children (10355) out of total enrolment (31137) in the new academic year in public schools from classes 2 to 10 have been migrated from unaided

schools. Data collected from 15 block resource centers under Samagra Shiksha Kerala, reveals the fact that the maximum migration has happened in class 5 (Krishnakumar 2020).

According to Punjab Education Department, 1.65 lakhs new admissions have been made in total 19175 government schools this year, which is a record. As a result student strength has increased from 23,52,112 to 25,17,866. Pre primary section has been seen to have the most new admissions. There are also discrimination exists in schooling cost between public and private schools so apparently this could lead to migration. Annual charges per student in classes 11 and 12 in government schools lie within 900 to 1500, whereas in private schools it is lie between 20000 to more than 1 lakh (Jagga 2020).

The significant reasons that have been highlighted are parent's satisfaction with government's move and fee free training of their children amidst the financial crisis, teaching learning process, teacher's communication abilities and teacher's selection process. The parents are also pleased with the ease of admission of their kiddies to public schools migrated from unaided ones.

## SECTION - II

Like school, college and university students are also facing uncertainty about final semester or final year exams and admission for the upcoming academic years. All academic activities in the college universities have been suspended. Students in the department of science, medicine and technology have been in extreme crisis due to closure of workshops and laboratory practice (Chakraborty 2020). Many important entrance exams including JEE, KCET, GUJCET, MHTCET etc. have been postponed. While higher education institutions in developed countries have taken advantage of online media to advance their learning, research and teaching; the stagnation has been exacerbated by the fact that educational institutions in developing countries are increasingly dependent only on classroom based teaching systems. Starting from the authorities of higher education institutions to scholars, the battle of syllabus versus time is now under great pressure on both sides.

Besides this, starting from foreign universities to native ones all are facing financial pressure due to low fees collection, uncertainty over exam cycle, internships and placement slowdown and also for restrictions imposed upon cross border movement of students.

On the flipside since India is the second largest international student source in the world, lakhs of Indian students are flocking abroad for pursuing higher education and as travel was restricted therefore it means the amount of resources and money of our country that could have been spent on foreign education could possibly be retained within the country. Therefore it is one of the opportunities for India to strengthen its way towards effective quality education (The Blog 2020).

Further, as universities and colleges have been facing decreasing number of students they tried to re-organize admission procedures.

Paucity in recruitment has shrunken the employment opportunities and has a quality and excellence issues. According to Centre for Monitoring Indian Economy (CMIE), unemployment has risen in India abnormally from 8.4% in March 2020 to 23% in April, 2020.

A survey conducted by All India Institute of Hygiene and Public Health during 15<sup>th</sup> to 31<sup>st</sup> May, 2020 through online mode over 2088 students across five colleges namely Moulana Azad College, St.Pauls College, Womens Christan College, Banipur Mohila Mahavidyalaya of North 24 Parganas, Bijoykrishna Girls college of Howrah has revealed the fact that the biggest problem in case of online learning is the lack of high speed internet connection even in Kolkata and its adjoining Howrah, Hooghly and North 24 Parganas. Major findings of the study are -

78% of students do not have fast internet connection, 14% students do not have money to buy internet data cards, 9% of students do not feel the urge to study online, 8% of students can't read properly on the internet, 6% of students do not have digital literacy, Smart phones are the only reliance of 94% of students for online learning, 52% of students are not happy to study online, 74% of students are very worried about whether the course or syllabus will end within stipulated time, 11% of students do not have much to worry about, 60% of students with bad family financial condition are worried about finishing the course. Those with good family financial condition are less worried. One third of the total urban and suburban students surveyed, live on regular salaries, 45% families have businesses, 12% families are laborers; among them 64.4% have problems with their earnings, 87% proletariat is in trouble due to loss of income, 81% family whose earning is less than or equal to 7500 rupees are in trouble, 42% household that depend on business at this time have no income, 18% household earns a little bit, 10% of the regular paid families have lost their jobs, 90% among them are belonging to lower middle class families, 13% families are in their job but not getting their salaries, 17% families are in their jobs but

getting fewer salaries, 26% families are facing financial problems, 19% of such families are not getting three meals a day.

Some Indian universities are offering various courses based on Artificial Intelligence (AI) enabled learning for medical, engineering students and law enthusiasts in the form of interactive sessions, online moot sessions, mentors playing videos etc. Further in this difficult scenario, virtual internships have been emerged as a significant opportunity for students to gather practical knowledge about their curriculum. Students have been encouraged to self directed activity towards digitalizing their fields after observing and realizing the current situation. At this difficult time students have been supported with emotional help from the university lecturers and online support groups to cope up with their anxiety, fear and stress (Kumar 2020).

### SECTION - III

Among international initiatives, zero rated educational websites in Jamaica, Argentina, South Africa; distribution of learning kits to those who do not have access to internet; renunciation of internet charges to students in Rwanda and Kenya; provision of additional data to students in Bhutan and Kyrgyz Republic; provision of internet bandwidth to rural and remote communities and for improvement of network coverage by introducing Google's Loon Balloons in Kenya, creation of free Wi-Fi hotspots in Dominican Republic, sharing learning materials through audio format in Ecuador, providing personal gadgets to students along with seamless internet hotspots are important (Kaur and Jain 2020).

In India in order to solve the problem of digital divide, the governments of different states are conducting studies through television, radio as well as community radio since the penetration of these medium is higher than online mode.

In Kerala, where around 3 lakhs out of total 43 lakhs school students who don't have TV with cable connection, telephones, or computer system with internet, virtual classes have been launched through KTE victors channel under the First Bell scheme on 29<sup>th</sup> May, 2020. Along with this channel free provision of classes has been available simultaneously on website, mobile app and social media. Classes are also available for English medium as well as Tamil and Kannada medium students. Another scheme called 'Ayalpakka Padhanakendrangal' has been launched by Kerala Government for provision of laptops to students at subsidized rates. The significant role played by student organizations, private individuals, NGOs, local self government institutions for free distribution of smart phones, television sets and setting up of small digital classrooms for the sake underprivileged students is immeasurable (Anupama 2020).

Bharat Net has taken a positive step in this regard to connect the remote areas of every state with a high speed broadband network and Wi-Fi hotspots. Central Government scheme called 'PM E-Vidya' - one nation one platform for strengthening online education is also significant enough in this regard. According to them DIKSHA would be the digital platform for nationwide education. There will be one channel for each class (I to XII).

Another scheme called 'Monodarpan' has been started shortly for mentally disturbed students, teachers and parents. The present crisis has changed the boundaries of learning in such a way that the children minds have difficulty adapting to it. Almost 12 crore children in our country has been engulfed by loneliness and sadness. The students in the upper class have been suffering from constant house arrest. Starting from World Health Organization to the ICMR, NCRB it has been clear from all of their survey that children's mental health is deteriorating and even suicidal thoughts are on the rise. (Ananda Bazar Potrika 2020)

Other e-learning platforms like e-pathshala, Swayam, STEM based game etc have been launched by the government for the sake of online learning. The role of social media can be large in case of online learning. WhatsApp is always easily accessible than a website or a portal. Students can form their groups; learning can be done through pictures, audio and video clips.

Incorporating 5000 villages, NGO Pratham has been attempted to distribute tablets by creating a small neighbourhood group through the app called Anganshala to facilitate self learning among students during school closures. The organization also suggested for engaging community volunteers in this teacher excluded learning process.

West Bengal Education Department is now attempting to conduct training for teachers through video conference by creating district based resource person. The training module is designed to cover about 20,400 teachers a month. A toll free number will be provided to the students, which they use for asking questions about the



subject. There are different panel for different subjects. Empanelled teachers will give answers. Side by side, there is another plan to list the WhatsApp numbers of the subject teachers in the Bangla Siksha Portal.

The collaboration with telecom companies can raise the possibility of increasing bandwidth of the network, provision to electronic devices and reimbursement of internet packages to students and an early introduction of 5G networks as an impetus to online education. Notably, the Delhi Government took the idea of providing data packages to class X and XII students and restricted the use of internet to specific applications only.

To increase awareness against cyber crime, West Bengal Education Department has organised a training called 'Cyber Hygiene' for the teachers. Students will get cyber security lessons through them. The department of IT will provide this special training to teachers and professors in government schools, colleges and universities. It is known that the first phase of this four day training programme is eight hours long. The whole training session will telecast live on YouTube. If there is any question, the teachers can ask it in the chat box of YouTube live and experts will answer them. It is being done in association with Cyber security Centre of Excellence, C-DAC Hyderabad under information and technology department and Weibel.

Attempt has been taken by some states to provide dry rations or cash to families instead of mid day meal. In West Bengal, keeping in mind the problem of mid day meal in government schools, parents are being given dry rations on a monthly basis. Along with rice and potato, pulses, chickpeas and much more nutritious food are being given by the Government in order to boost their nutrition level. Even sanitizers (50 ml), soap and masks have been handed over to parents in order to maintain hygiene. Usually the monthly per capita expenditure of Government for the provision of cooked mid day meal behind primary and upper primary students is 114 rupees and 171 rupees respectively. By adding 250 gram pulses along with rice and potato, the per student expenditure stands at 67 rupees, so Government is still saving 47 rupees for primary classes and 104 rupees for upper primary classes due to this transformation from cooked meal to dry ration.

It has been observed that significant steps have been taken several times by various Indian state governments in the matter of private school fees collection. Karnataka Government has been advised to postpone the issue of fee collection until further orders or to make it voluntary. Also it has been ordered to strictly follow the digital transaction in this case and provide instalment facilities to parents. Moreover, Delhi, Tamil Nadu, Telangana, West Bengal and Maharashtra state governments have followed the same path and also instructed to discontinue the hike in fees and charge only tuition fees (Nagavalli et al 2020).

#### **SECTION - IV**

The biggest risk lies in the matter of nationwide digital divide, both as region specific and gender specific. All in all 23.8% of Indian households have internet connection among which only 14.9% of rural households and 42% of urban households have access to internet. On the other hand 16% of women compared to 36% of men have internet connection and 12.5% of students among Indian households have access to internet (National Sample Survey, 2017-18). More than 50% of those who have fixed broadband, internet connection are very weak (Quacquarelli Symonds 2020). A survey conducted by Calcutta University Teachers' Association (CUTA) cleared the fact that only 15% of students benefit from online classes. It is not possible to conduct practical classes in online mode. Poor internet connection significantly reduces attendance rates in most cases, evidence can be given of various government schools, colleges, universities in different states and even IITs. The worst situation is for those who live in remote areas and are characterized by underprivileged sections of the society.

Although in India, adaptation to e-learning has been gaining importance before the grip of the virus, at this point some existing Ed-tech platforms have seen a spike in enrolment in their offering courses.

Furthermore continuous use of electronic device can raise anxiety, stress and reduce attention level of students. Longer screen time can also raise the possibility of device hacking and can raise the possibility of child abduction according to teachers and researchers by manipulating information.

A team of researcher from The University of Texas, Dalas of America has created an application to protect online privacy of children. The survey (2020) conducted by the team under the leadership of Kanad Basu, revealed the fact that children's online safety was being severely compromised. Among 100 apps for kids, 72 are collecting and distributing personal data, stealthily of the user.

Another section who has been the victims of digital divide along with Government and rural students is EWS quota students. These students attempted to enroll themselves in a prestigious private school availing quota facility. Though they are availing the benefit regarding school fees and uniform from school, there are some

expenses that they have to bear which they are unable to do. In this hard time it is also impossible for their parents to provide all the technological aids to their children needed to study online (Jebaraj 2020).

Apart from the students, another class who has been the victims of this situation is the teachers. In classroom teaching, a teacher always builds a bond with every children by observing their body languages and interacting with them using their own teaching style over a period of time. Suddenly it has been really a challenging task for the teachers to replace board work and assess the students without eye contact. The new way of teaching is a little difficult for some teachers to adopt overnight, because on the one hand some teachers are not that much of technology savvy and on the other there was no proper plan beforehand. Moreover, the curriculum is not designed that way and there is also absence of affordable online platform specifically designed for online learning. A dire financial crisis also has been emerged among teachers and other staffs at various private educational institutions and in this case we know that the number of teachers employed in private unaided schools (28 lakh) is almost three times more than the number of teachers in government aided schools (8.3 lakh) (DISE 2016-17).

It has been realized that in a developing country like India, there are multiple problems associated with e-learning but there are also many good aspects entangled with it. Attempts have been taken here to highlight some of them. Firstly it helps to ensure equitable access to education by eliminating geographical barriers; it is quick, easily accessible, and convenient. The biggest advantage of e-learning lies in the fact that it is flexible. A student can adjust the timeframe as per their convenience depending on their own pace of learning. This flexible timescale is largely helpful in putting down the pressure on them. With this flexibility a student can learn from anywhere in the world by sitting at the corners of their rooms and have a chance to communicate with educators and other students belonging to the same course. One of the major problems attached with classroom teaching is lack of individual attention due to large class size. E-learning can solve this issue efficiently by providing customized or personalized learning experience to every student. As classroom has disappeared, with that the first bench is gone. Students who are able to attend classes are treated in a similar way. The teacher is now thinking about the performance of that particular student who had been neglected in the classroom to take lessons. An unprecedented closeness is being established between teachers and students.

Moreover, blended learning i.e., mainstream face to face learning along with an online model has become a new norm in most educational institutions with the hands of trained and technically efficient teachers. This pandemic has open up the opportunity of collaborative teaching and learning across the nation. Another advantage that attracts attention this time is self directed learning, which helps to develop self confidence and perseverance, prioritizing independence, critical thinking ability and productivity.

Although classroom learning can never be a substitute for online learning, but still activism is needed to strengthen e-learning in all types of educational institutions, keep in mind its good side and future uncertainties that may happen again. Now what is needed is to continue studies through radio, podcasts, supply of customized content for differently able and providing learning materials to the parents in offline mode.

According to Union human resource development minister, National Council for Educational Research and Training (NCERT) would cover measures like spaced out sitting arrangements, classes in shifts with a fewer number of students (not more than 30% in one day) and online weekend classes etc in order to maintain learning in the new normal, when classes will resume.

If the social distancing norms are to be followed well then it needs to put more resources into the system. But there are a lot of deficiencies in the Indian education system. In India, there are 53,533 single classroom schools, student classroom ratio in 19% schools is 35 and above, in 8.3% schools it is more than 50 and there is also multi grade teaching in many schools. Also there are 108017 single teacher schools; pupil teacher ratio in 17% schools is more than 40. Many schools also have single staff room for all teaching and non teaching faculty. There are 8.1 lakh non teaching staff members in the school education system (DISE 2016-17).

Also when classes are divided into different shifts then additional teaching time is required, which also need extra teaching staff or overtime by the existing ones. The vacancy for government teachers is 17.6% and 15.7% in elementary and secondary level respectively (AWP & B and PAB Minutes 2017-18).

After reopening of schools students' hygiene measures have to be strictly followed like providing them safe drinking water, sanitizing their hands and shoes when they are entering into school premises, keep an eye on their movement, eating and outdoor activities outside the classroom etc. But in India, 45% schools do not have any hand washing facility (DISE 2016-17). After successful implementation of Swachh Vidyalaya Abhiyan, now

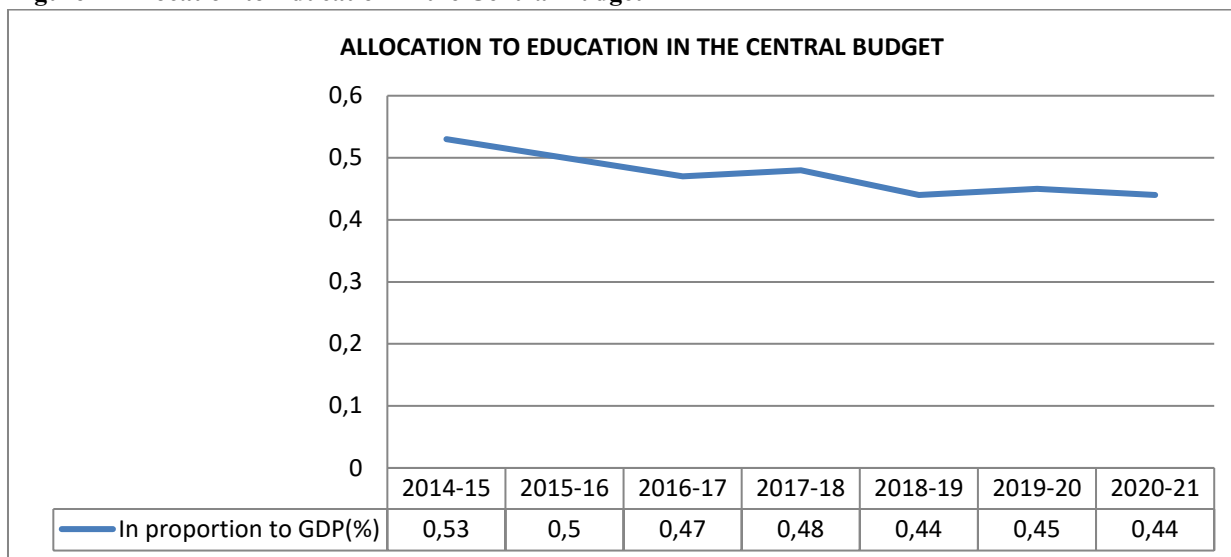
93% schools have separate toilet facilities for boys and girls and 87% schools have functioning drinking water facilities in India. Only 52% schools in India have all three facilities altogether.

WaterAid has been undertaken a survey of 453 schools in 2020 (37.8% primary, 39.5% middle and 22.7% higher secondary) in 34 districts across nine states (Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Odisha, Telangana and Uttar Pradesh) which states that 84.1% of schools have always safe drinking water facility in school and hand pump is the main source of water including drinking water in most of the schools. 28% schools in states like Telangana, Odisha, Karnataka have own separate toilet facility for teachers. The survey revealed the fact that there are 43.5% of schools where teachers have their training on hygiene and sanitation (Kundu 2020).

So it has been realized that appropriate infrastructure, recruitment of teaching and non teaching staff, arrangements of teachers training is very much needed at this moment.

Experts have the opinion that expenditure on education should be increased without creating a situation where education is completely handed over to the private sector. India currently spends 2.8 percent of GDP on school education which is the lowest among BRICS nations. The allocation for education in the Union Budget, which was 0.53% in FY 2014-15 has declined to 0.44% in 2020-21 (Jha and Rao 2020). At present the target for all State and Central education allocations in India is about 6 percent of GDP. According to some experts, the economy of India and the world over the years has not only been labour intensive but has also become knowledge based. To keep pace with it, many developed and even developing countries have increased their allocations to education. Neighbouring country China has multiplied the allocation for research and development. According to statistics most of the allocations for education are spent on fixed costs like salaries and pensions. The allotment to build new classrooms, schools, colleges and other infrastructure is nominal. In 2019-20, the combined budget allocation of all the states and union territories for education was 35.15%, but among these the allocation was 1.32% for initiating new infrastructure.

**Figure 1: Allocation to Education in the Central Budget**



Source: Union Budget and Reserve Bank

Also children who return to school after a long period of time will need an emotional and psychological support to return to the familiar rhythm of learning as many of them have experienced many bitter experiences during this hard time.

Measures have to taken immediately to tackle the digital divide by improving the internet connectivity and e-learning ecosystem. Major initiatives that have to be emphasized at this point of time are strengthening of open source digital learning solutions, learning management software, DIKSHA platform across all states etc. Schools will have to put more resources into building online classrooms. They can use online platforms like Google classroom by uploading instructional videos and assignments with a deadline in spite of using any random applications. Flexible learning process like flipped classroom or deployment of MOOCs is the need of the hour (Arakal 2020). It is very much necessary to train the educators across the rural urban spectrum on the emerging technologies. It is important to include the subject of teachers training required for e-learning into teachers training curriculum. Above all unified and inclusive learning system has to be developed by reconsidering



current delivery and pedagogical methods in schools and higher education institutions through integration of classroom learning with e-learning models.

#### SECTION – V

The effects of pandemic are more or less reflected everywhere and in every sphere of the world. The far reaching impact of this universal crisis in India with a special reference to education sector has already been discussed here. Students are the worst sufferers due to the indefinite closure of all educational institutions. In addition, every entity associated with the field of education has had to suffer the consequences. Accepting the etiquette of technology based education in a short period of time turned out to be a challenging struggle for the entire education community. In this article some unfavourable truths have come up while looking at section specific impact of entire education system in India. Boys are getting more access to technology as well as more opportunity for online learning compared to girls. In fact girls have had to face considerable obstacles in watching educational programmes on television as they are heavily burdened with household responsibilities in these days. Sometimes, the lack of technology is not the only reason of concern because despite having smart phones many students haven't received any learning material or haven't got the opportunity to join live online classes and have even been deprived of watching recorded class videos. Therefore it has been observed that, lack of awareness, financial instability, occupational uncertainty, low educational qualification of parents etc have been identified as significant factors of digital divide. Also it has been witnessed incidents like extra parental satisfaction towards Government schools. In case of higher education some disappointing information has also come up like the lack of high speed internet connection has become an obstacle for online learning even in Kolkata and some adjoining districts. Furthermore, considerable reluctance towards online learning and panic of syllabus completion has seen especially among students from economically weaker families. Although keeping in mind the need to solve the problem of digital divide, various timely policies of the Government like encouraging learning through radio, television and social media, free provision of digital device, reimbursement of internet packages, launching e-learning platforms, arrangement of teacher training etc reflects a well thought out attitude of the Government. In this regard, the contribution of NGOs, student organizations, private individuals, local self govt institutions, telecom companies is undeniable. In the aggregate, deplorably the scope of e-learning has been limited to a small number of students. However as time has passed, several positive aspects of it like flexible timescale, experimental learning experience, collaborative learning, self directed learning etc have come to our notice. Moreover two teaching methods can be complemented by making appropriate adjustments on the basis of proper planning. Finally it has been suggested that more alacrity is needed in expanding e-learning in line with classroom teaching keeping in mind its considerable requirements in modern times. All that is needed now is to strengthen its foundation and attempting to make it inclusive and affordable so that the stagnation of education system can be prevented from any kind of sudden disaster in future times.

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