

Education in times of Covid-19 and the future of online education in India

¹Debalina Chatterjee, ²Madhubrata Mohanty

¹Ph.D Research Scholar, Siksha 'O' Anusandhan Deemed to be University, SOA National Institute of Law, Kalinganagar, Bhubaneswar, Odisha -751003, debalina340@gmail.com

²Associate Professor of Law, Siksha 'O' Anusandhan Deemed to be University, Siksha 'O' Anusandhan University Office Khandagiri Marg, Dharam Vihar, Jagamara, Bhubaneswar, Odisha 751030, madhubratamohanty@soa.ac.in

Abstract

Objectives: To find out the effect of online education in times of Covid-19 on teachers and students in India. To determine measures to be taken to make online classes more smooth and effective in India.

Method: The researchers have employed journal articles and website news. The researchers have collected primary data by questionnaire method which is send to the respondents by email. The sampling method is convenient sampling. Two separate questionnaire was set one for teachers and another for students. The sample size is 32 for teachers and 32 for students. 5-point Likert scale and dichotomous scale have been used to record the responses of the respondents. The results are showed in the form of pie-charts.

Findings: Teachers are moderately satisfied with online classes. Effect of online teaching on physical and mental health is high. Most of the teachers have suggested that training sessions for proper use of technology is required. As the data charges are high Government must look into this matter. Near about 65.7% of the respondents reported that their colleagues are helpful while working from home. Collaborative approach of teachers and students together can make online-learning more effective. According to the students although online classes are need of the hour they still prefer offline class as face to face interaction is necessary for them. Online examinations are troublesome to most of the students. Although e-learning is helpful still in this process students are unable to grasp various concept due to communication gap with teachers. Students want interactive sessions, group discussions, projects, classes with more content in order to get motivated for online classes.

Novelty: This study is comprehensive wherein the issues of all the stakeholders of education sector have been dealt with. Many important recommendations have been given from teachers and students perspective which is beneficial for future of e-learning in India. Such elaborate suggestive measures are absent in previous literatures.

Keywords: Education, Mental health, Covid-19, E-learning, Online class.

INTRODUCTION

Mankind have been compelled to maintain social distancing since the starting of 2020 by the spread of a virus named as Covid-19 by WHO. Crores of students were affected by this pandemic. India has the second largest number

of students in the world. According to UNESCO, “approximately 0.32 billion students in India have been affected by school closures due to the Covid-19 pandemic. The Government of India in order to adhere to the guidelines issued by the WHO and to protect its citizens issued circular on 16th March, 2020, to shut

down all educational institutions of the country till 31st March, 2020. Teachers and professors were directed to work from home till 31st March, 2020. Educational institutions suspended all the scheduled examinations. This time period of shut down of educational institutions got extended in different phases. Education sector remained closed for around one year. All other sectors were opened in different phases but educational institutions were opened in the last phase of lockdown. However, educational sector has not opened in full fledge, for instance, in colleges only final year students were permitted to attend classes physically and in schools, secondary classes have opened but primary classes have not commenced yet by any of the state governments of India.

It has been rightly said that, "It is difficult to stick to the traditional road when the road itself has crumbled". In this exceptional circumstances India had to enter the era of digital learning model in order to continue with classes. This is definitely a praiseworthy action that all institutions throughout the country took various initiatives to provide online education to their students even though not having required expertise to conduct online classes. Covid-19 has created new opportunities and hopes for digital learning. Although many issues are present in the contemporary structure of online learning in India, still there is a ray of hope of a better hassle free system. Continuation of classes has been possible because of the presence of so many free and institutionally supported technologies like Zoom, Google Meet, Cisco Webex, Moodle and other social media platform like whatsapp. The Ministry of Human Resource Development (MHRD) has made necessary arrangements for easing the learning process for students. MHRD has provided the students with online portals, delivery of lectures through radios and other educational channels. The MHRD has created online portals for secondary education and higher education, for instance, diksha is an online portal where contents are created for teachers and students of CBSE schools and e-books are provided for all classes. E-pathshala and National Repository of Open Educational Resources (NROER) are e-learning apps for secondary education. Swayam is an e-learning platform which hosts multiple courses for higher secondary, undergraduate and post graduate

students. Subjects that are covered by Swayam are engineering, law and social sciences, humanities and management courses. The Government sponsors Swayam Prabha channel meant for streaming educational subject matters on 24 x 7 basis. e-PG, the e-learning platform provides e-books and online- courses for post graduate students. The online mode of learning has negatively impacted students of many countries. Even some low pay students in USA could not access online learning arrangement. For a developing country like India, it is a matter of pride that our country has shifted from traditional mode of learning to e-learning within such a short span of time. Nevertheless, the importance and efficacy of face to face interaction between teachers and students cannot be wiped out totally but the online education system needs to be integrated with the traditional system (Jena.,2020).

Literature Review

A three-judge Bench of Justices D.Y. Chandrachud, Vikram Nath and B.V. Nagarathna of the Supreme Court warned about the consequences of growing digital divide in India. The apex court noted that the right to education of children now hinges on whose parents can afford gadgets required for online classes and whose parents cannot afford it. The Court also pointed out that little children whose parents could not afford laptops, mobile phones and internet packages during the pandemic have been dropped out of school. There is also high risk of hike in child labour and child trafficking in the country. As the schools shifted to online platform during the pandemic the school dropout rates of children belonging to Economically Weaker Sections and children living in rural and tribal areas are higher. The Supreme Court pointed out that the needs of children who are the future of the country cannot be ignored so it is of utmost importance that Centre and State Governments devise proper plan of action to disseminate adequate facilities of online learning across all level of social strata otherwise the purpose of Article 21A and Right to Education Act will be defeated.

(Tejedor et al.,2020) in the research paper, "Education in times of pandemic: reflections of students and teachers on virtual university education in Spain, Italy, and Ecuador", have

done comparative study with three countries. The study is descriptive and exploratory in nature. The findings suggest that students are dissatisfied with the virtual mode of studying. The results point out that teachers should not only have knowledge about the subject but must also have knowledge about Information and Communication Technology.

In the article titled, “Learning in times of lockdown: how Covid-19 is affecting education and food security in India” (Alvi et al.,2020), the authors have discussed the impact of lockdown on education and nutritional needs of the children. This article has also discussed the growing digital divide between children who can afford online classes and those who do not have access to such resources. The authors have discussed how closure of schools deprived many children from mid-day meal for which no alternative have been devised. This article shows that the impact of lockdown on children is multi-pronged. This article has not discussed the impact of lockdown on teachers and parents. So, there is further scope of study on this area.

(Muthuprasad et al.,2021) in the research paper “Students’ perception and preference for online education in India during COVID -19 pandemic” have done empirical study to ascertain student’s perception for online classes. The researchers have attempted to understand the viewpoint of students for online classes in Indian context. In this study the researchers have found that there is as such no difference between online classes and physical classes to the contrary if online teaching is appropriately designed then online mode of teaching can be more effective. The researchers have laid down the factors affecting online classes. This research paper is first of its kind leaving behind ample scope of further research on various other parameters.

This paper titled, “Education in times of COVID-19 pandemic: Academic stress and its psychosocial impact on children and adolescents in India” by (Mahapatra et.al.,2020) is a research paper wherein the authors have discussed the psychological effect of academic stress on students during lockdown. The main input of this research paper is that it has highlighted the issues of children with disabilities which most of the papers have failed to mention. This paper is not supported by empirical evidence and the study is not conclusive. Although the authors

have hinted towards a much wider spectrum of study.

Methodology

This research paper is descriptive and exploratory in nature. In this research paper the authors have employed both primary and secondary data. Primary data is collected by questionnaire method and the sampling is convenient sampling. Primary data is collected from two groups of respondents i.e. teachers and students Secondary data is collected from online articles, journals to find what are the prevalent issues of online education in India. Descriptive- analytic method of study has been used to find solutions for smoothly conducting e-learning in this digital era. The positive and negative impacts of online education are discussed and analysed in details and results of the analysis is given as suggestions.

Results and Discussion

Positive impact of online education in India

Though outbreak of Covid-19 impacted negatively the education sector of India, still it cannot be ruled out that this crisis has also some positive implications for the education sector of India. Some of the positive impacts of online education are as follows :-

□ Blended learning has become feasible- Online learning has become a saviour in this crisis situation. Teachers and students have become more techno-savvy. Covid-19 has enhanced the pace of development of digital technologies in the field of education. Many more ed-tech apps have been developed. Large group of learners can avail the benefits of online education. New techniques of evaluation and delivery of lectures have opened opportunities for radical change in the curriculum of schools and colleges. This will facilitate more advanced learning wherein face to face traditional classroom settings will be combined with tech aided mode of learning which will make learning more interesting for students. Use of ICT in higher education will make India knowledge superpower.

□ Use of soft copy of study materials- During the lockdown period students mostly

used soft copy materials for studying as collecting hard copies was not feasible. More and more use of soft copy for studying and submission of assignments online is an environment friendly practice as this will reduce cutting down of trees for making papers in the long run.

□ Upsurge in online meetings- There has been an increase in video-conferencing, e-conferencing, telephone conferencing and webinars during the pandemic. This is advantageous for employees and employers as they can participate in the meeting from anywhere in case they fail to be present in the office physically. Further conduct of webinars on various subjects has proved be quite beneficial for the students, research scholars and the faculties as they can partake in various national and international conferences, webinars and workshops sitting at their home also. This not only enhanced their knowledge and skills but also provided them with right platforms to present research papers. So it can be rightly said that academicians has successfully utilised the lockdown period to enrich their career and future prospects. Previously it was not possible for everyone to attend so many seminars as participants ought to travel to the venue but the successful arrangements of so many webinars have proved that online platforms can be used for conducting webinars with speakers from various parts of the world. Webinars are also less costly. Organisation of webinars on various measures taken by Reserve Bank of India and other financial institutions to cope up with the pandemic situation has kept people informed about the latest developments. Webinars on mental health suggested measures on how to take care of mental health which has helped at least some students in coping up with their depression. Educators and learners have got huge exposure as they can interact with other educators and learners from other corners of the world. Collaborative programmes of faculties across the world will be beneficial.

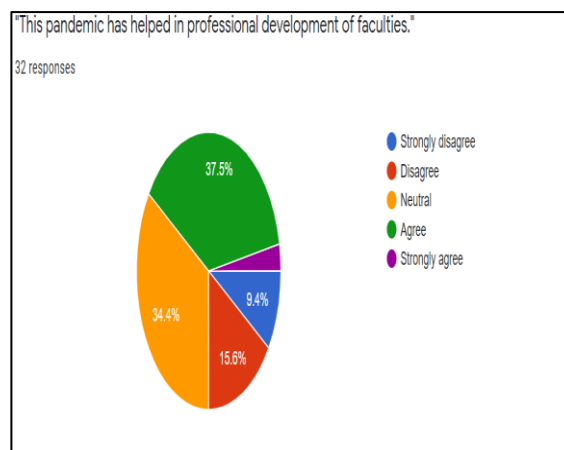


Figure 1. *Showing that majority of the faculties got time for professional development.*

□ Growth in the use of electronic media and better time management- There has been a hike in the use of social media like whatsapp, facebook and telegram, e-mails and SMS for clearing doubts. Time management has become easier for teachers as well as students.

Greater demand for distance learning- As the pandemic situation has increased digital literacy in India the demand for open and distance learning have also increased. Previously only few universities provided distance learning but now many more universities have started online distance learning courses. These courses are beneficial for those who for some reason or the other are unable to attend regular classes. As a result of all these, the demand for learning management systems in educational institutions has also increased(Jena.,2020).

□ Opportunity of work from home for new mothers- During the lockdown almost all companies, institutes have developed mechanism by which their employees can perform their respective jobs from home. So, Under the Maternity Benefit Act female employees can in coming days claim work from home facility and this will require appropriate amendment in the Act.

□ Learning of new skills- Both teachers and students simultaneously learned new ways of utilising technology for the purposes of learning and online examinations.

Negative effects of online education in India

The negative impacts of online education amidst Covid-19 pandemic out weights the benefits that online education provides. Some of the major issues are enumerated below:-

Effects on teachers:

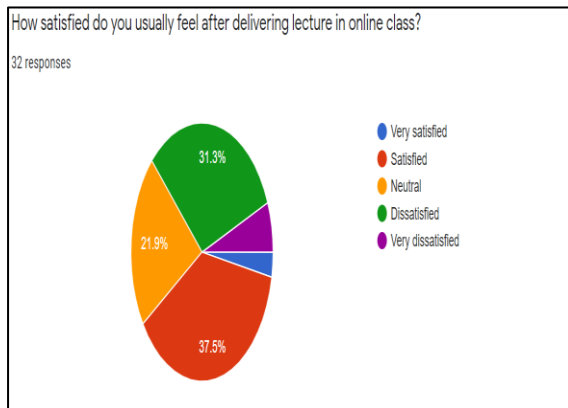


Figure 2. This pie-chart shows that about 37.5% of the respondents are satisfied with online classes and 31.3% of the respondents are dissatisfied with online classes.

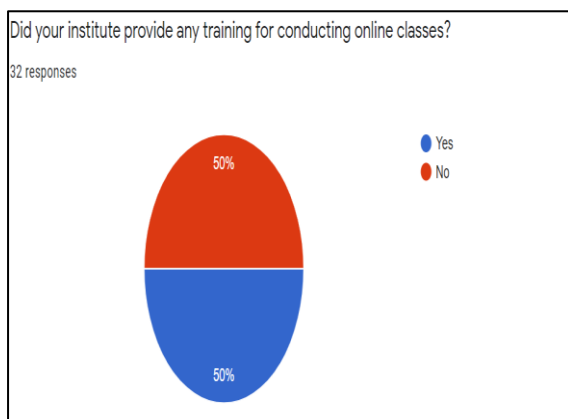


Figure 3

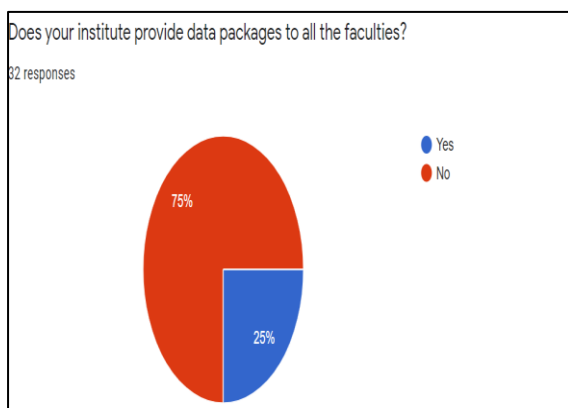


Figure 4. Majority of the institutes do not provide data packages to the faculties.

There has been great difficulty for educators to change their teaching pattern from online to offline. It is a challenging task for educational institutions to keep the students engaged in online classes. Firstly, many teachers are not trained in conducting online classes and in using online digital applications. Before lockdown and closure of institutes no training session has been organised by institutes on how to manage online classes. Many old professors and teachers face problems in conducting classes and during examinations. Few teachers are ridiculed by students because of this reason. Secondly, teachers face problems in taking classes in home settings. Teachers get distracted by outside noise and unwanted interferences by family members while taking classes. According to a report furnished by Press Trust of India (2020), “continuous external distractions because of clamour from the neighbourhood or interruption by family members during the lecture made an adverse effect on the continuity of teaching.” Sometimes students intentionally create disturbance in online classes by making entry in some other name, playing music and other nuisances. Another issue is that basic facilities like blackboard, marker and printer are not available at home. Reference books are also unavailable. In absence of these basic facilities it becomes difficult for teachers to explain various concepts. Though zoom provides for an inbuilt whiteboard but it is difficult to use that. Two-way interaction between teachers and students hardly take place and teachers are unable to read the mood and facial expression of students (Joshi et al., 2021).

Thirdly, the task of checking answer sheets online is very strenuous. The marks are directly put into the software so the chances of error cannot be completely ruled out. 84.4% of the respondents reported that spending more hours before the computer have affected their health. About 43.85% of the respondents reported that sometimes online classes become very stressful. According to 84.4% of the population think that students rate of learning is low in online classes. The task of online invigilation of online examinations is very time-consuming and tedious for faculties. Moreover, online examination lacks transparency on the part of students as they become open to ample opportunities to cheat and write their answers. Fourthly, teachers face connectivity issue in online classes, a lot of time is wasted in fixing

network issue. Sometimes classes are rescheduled when network issue continues. There are two types of software available, one that is institutionally supported technologies and another is open-sources. Few studies have highlighted that teachers using moodle and google meet faced less technical difficulty compared to those open source users. Teachers living in remote areas faced much more technical difficulty. Further, faculties using open sources are not comfortable with it because of security threat. Lastly, besides facing unstable network connectivity problem, faculties also faced personal challenges. Despite having knowledge of conducting classes on online classes, teachers yield to institutional pressure. This leads to dissatisfaction and stress among teachers. Teachers work have increased manifold as they have to prepare presentations and record live sessions and assist the students as far as possible even outside working hours. As immediate feedback from students is not possible teachers feel demotivated and demoralised. Some institutions introduced salary cut of faculties to cope up with the financial crisis this has further created resentment among faculties.

Challenges faced by parents:

Parents of school going children also face many issues. Parents are authorised to constantly monitor and follow up what the child is actually learning. Parents have to spare more time on the education of their children as they are only persons who are physically present with the children. During examinations students parents are asked to sit beside them to assist them in giving examinations smoothly in online mode. This is stressful for working parents who have to give time to their own work also. Mostly, the task of mothers have increased manifold. However educated guardians face fewer issues in helping their ward with studies. Think about the plight of children of parent who are not literate. In such cases those students are the worst sufferers. During the lockdown phase many parents lost their jobs and schools and colleges has exempted such students from payment of the fees. This has lead to financial loss to many private institutes.

Impact on students:

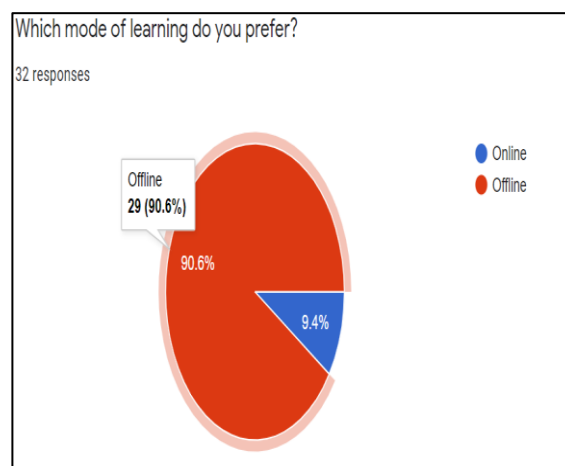


Figure 5. Most of the students are preferring offline classes because of array of reasons which if solved can encourage students for online classes.

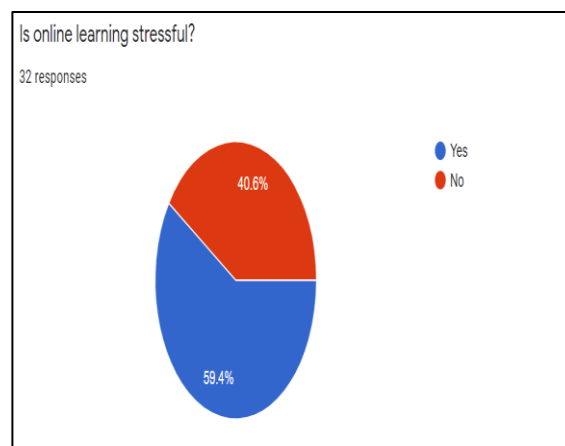


Figure 6

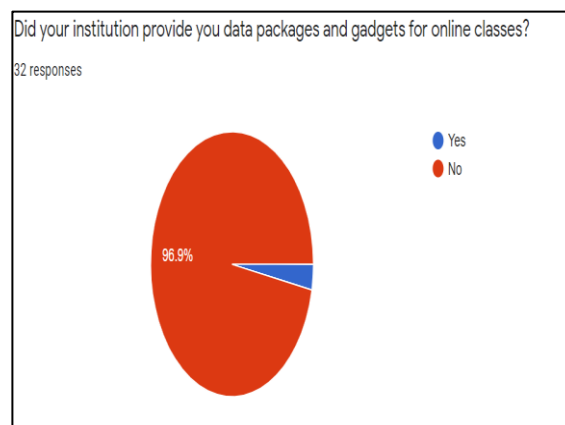


Figure 7

This pandemic has affected students in innumerable ways. As India is not technologically advantaged so the network bandwidth is low this causes connectivity issues. Many students face this issue. The problem become more complex during online examinations as many times it is seen due to network issues students could not attempt all questions or have failed in successfully submitting answer sheets. Students find online classes boring and unengaging so most of the time their attention shift from the class. From the study it is clear that about 56.3% of the students do not find online teaching interesting and flexible. Students belonging to not so well to do family do not have much digital access as they don't have smart phones and laptops to carry on their studies online. The students living in remote areas are having very poor/ no internet facilities. All these have created psychological stress and emotional trauma in the students as they are feeling that they deprived of education and this gap in their career cannot be fulfilled. Even few suicide cases of students have been reported in the past few months. This digital divide has played havoc with the mental health of children. Reduction in practical efficacy and shifting of most of the offline work to online have created much stress among students as all students' level of managing so many things at a time is not equal. Only 43.8% of the respondents stated that their respective schools/colleges held counselling sessions for them. About 87.5% of the students reported that online classes have affected their health. The mental health of children living in families where tension and violence between parents prevail have further deteriorated as they have to stay all the time in home only. Further students lack personal space at home that is required for focusing in class. 65.6% of the respondents get help from parents with regard to studies.

In order to promote emotional well being of students amidst the pandemic many schools and universities have given more marks in final examinations. Even in board exams of class 10 and 12 students have been given huge marks in subjects in which they have not appeared the examinations. Marks have been allotted by evaluating rest of the papers and the highest marks obtained in one paper are allotted to other papers in which the students have not appeared. What is the relevance of these examinations? In future these candidates will face issues in job

market. This type of allotment of marks has demotivated good students who prepared for examinations but could not appear in the examination. No distinction can be made on the basis of these marks between brilliant students and mediocre students.

According to Article 26(1) of the Universal Declaration of Human Rights provides that, "Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit." Under 21 A of the Constitution of India, Right to Education is a fundamental right. There has been violation of right to education for those who could not afford or have not got adequate assistance from their institutions to carry on classes online. Online learning has enhanced inequality and disparity between rural and urban students as electricity and network connection are not available to students living in rural areas. According to NSS (2017-2018), "23.8 percent of Indian households have access to the internet." This number reduces to 12.5 percent when we take into account students of Indian households who can access the internet. Households having fixed Broadband connection experience poor internet connectivity. All these hint that Indian infrastructure lacks the state of quality required for conducting online classes. Digital divide is also felt by poor students living in urban areas. Students going to private schools usually outperform those students going to government schools and now this disparity will increase because the poor students are lagging behind as they are unable to access classes.

According to UNESCO, "approximately 0.32 billion students in India have been affected by school closures due to the Covid-19 pandemic (UNESCO 2020)." Closure of schools for several months will increase school dropouts. During the lockdown because of financial crisis many students has left schools to support their families. Many minor girls have got married. Closure of educational institutes has affected girls more than boys as girls have to shoulder family responsibilities while staying in home. All these have increased rate of school dropouts, child labour and child marriages. The economic shock is likely to impact more the children

belonging to marginalized groups(Alvi et al.,2020).Children of migrant workers are at a greater risk of school dropouts as prolonged closure of schools will entail them to join the workforce. Natural disasters like flood, cyclone, drought also affect the continuation of schooling for long period. So a well planned mechanism is required to tackle all these situations so that students face minimal issues.

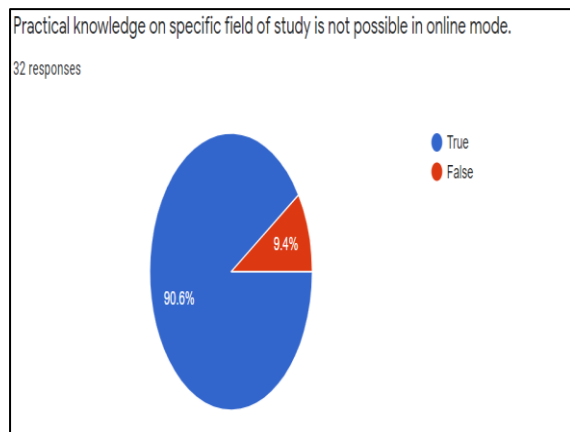


Figure 8

Science students, engineering students, agriculture students and students of hotel management are facing much more problem as they can not avail of required practical training in their respective subjects. Few subjects like mathematics are difficult to be made understandable to students in online mode. So, here gap in knowledge remains. Research scholars are facing problems in accessing library and going out for field work for research problems. As a consequence the time period for submission of thesis were delayed further. The plight of final year students is more troublesome as they are unable to complete their course in time and amidst this pandemic situation job opportunities are also meagre. This is a source of anxiety among final year students as the academic session has got delayed. Final examinations of school, colleges are postponed. This is a huge loss for students. Sitting for long hours in front of laptops and phones affect eyes and overall health of students.

State have failed to fulfil its obligation under Article 47 of the Constitution which imposes duty upon State that, “The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary

duties”.Covid-19 has also impacted the food security and nutrition of students. The Mid Day Meal (MDM) programme of India is world’s largest school feeding programme which not only attract students to attend school but it is also a source of providing food and nutrition to children of poor families. This flagship programme provides cooked food to children of primary class in government schools. As schools are closed many children are suffering from hunger and malnutrition.

Children who are differently abled have faced much trouble as they need vocational activities and emotional care. Children and adolescents suffering from autism and other mental disabilities need routine speech, behavioural and vocational therapy. The Indian centers providing such therapies are mostly not equipped to provide online services and home assistance. The Department of Empowerment of Persons with Disability has released Comprehensive Disability Inclusive Guidelines for safety and protection of persons with disabilities during COVID 19 but nothing is mentioned about the educational provisions of Children with disabilities. The National Education Policy,2020 in para 6.2.5 recognizes, “the importance of creating enabling mechanisms for providing Children With Special Needs (CWSN) or Divyang, the same opportunities of obtaining quality education as any other child.” National Education Policy, 2020 has not clearly mentioned about online education. UGC is in the process of devising regulation on e-learning(Mahapatra et al.,2020).

Judicial response

Some of the noteworthy guidelines issued by Supreme Court and various other High Courts of India relating to regulation of online classes and allied matters in times of Covid-19 are as follows:-

1. The Calcutta High Court had slashed school fees in the state of West Bengal by 20 percent during covid-19 pandemic. This is indeed a great relief for guardians demanding waiver of school fees. The High Court stated that, “There will be no increase in fees during the financial year 2020-21. Beginning April 2020, till the month following the one in which the schools reopen in the physical mode, all 145 schools (party to the petition) will offer a minimum of 20% reduction of fees across the board.” Further, the Hon’ble

High Court added that schools can't charge fees for facilities which are not availed of during this period such as laboratory, craft, sports and extracurricular activities. The order also stated that, "Parents and Guardians of students are required not to avail of the reduction in school fees, if their financial situation does not merit the reduction. However, if any set of guardian or parents obtains the benefit, no question in such regards can be asked."

2. The Supreme Court's bench led by Justice L. Nageswara Rao in December, 2020 directed the states to provide required infrastructural facilities and books to child-care institutions. The apex court also directed the states to pay a sum of rupees 2,000 per month to children who are send back to their home because of Covid-19. The recommendations of district child protection units will be adhered to respect of the study facilities of children of child care institutions. Those institutions must have required number of faculties and the State Governments must ensure whether the kids of these institutions have adequate access to online classes.

3. On a petition of a NGO named Justice for All' a division bench of the Delhi High Court ordered the private as well as the Government schools like Kendrya Vidhyalaya in Delhi to provide gadgets like laptop, phones and internet data packages to children belonging to economically weaker sections of the society during Covid-19 lockdown. The cost of necessary gadgets and internet packages are not included in the tuition fee, according to the division bench of the high court, and the school must provide these to students free of charge, subject to the right of private unaided schools to be reimbursed under the provisions of the Right of Children to Free and Compulsory Education Act, 2009. The high court had said "that to separate such students from others in the same class due to non-availability of a gadget or a device would generate a feeling of inferiority that may affect their hearts and minds unlikely ever to be undone." The High Court of Delhi further stated that, "if a school decides to voluntarily provide synchronous face-to-face real time online education as a method of teaching, they will have to ensure that the students belonging to economically weaker section (EWS) or disadvantaged group (DG) category also have access and are able to avail the same". The Delhi

Government challenged the impugned order in the Supreme Court, Chief Justice S A Bobde has stayed the verdict of the High Court on 10th February 2021 on the ground of additional burden being put on the State Government.

4. Dr. Nand Kishore Garg filed a PIL in the apex court of India through his advocate wherein he sought directions from the Union of India to issue guidelines for virtual classes as there is a threat that children can become exposed to various obnoxious content. There shall be proper mechanism wherein children will be unable to access other websites during online classes so that they can't access any illicit website and avoid all popping up options. The petitioner sought appropriate directions from respondents to develop robust cyber applications for online classes which will be encrypted end to end. The petition also added that, "There should be a broader mechanism be developed for ensuring the accessibility of the computer-driven devices or any alternate arrangement of online classes for all the excluded and marginalized children of our country to ensure that deprived children may be beneficiary of online video classes in order to cover the loss of learning during the lockdown period".

5. On 18th November, 2021, the apex court heard the petition of students regarding the mode of conduct of board exams for CBSE and CISCE and refused to conduct board examinations in online mode or hybrid mode. Students argued that physical mode of examination will create risk of Covid-19 for students and it will also violate their right to health. The Supreme Court averred the physical examination will not pose threat to health as the number of examination centres have been increased and the respective authorities must take adequate precaution and safety measures within the examination centres.

Suggestions

The suggestions highlight the recommendations of the respondents of my study:

1. Training should be given to faculties to build up professional competency to carry on classes on online platforms efficiently. Training is also required for students and parents. Students must understand that they have to be more attentive in classes for their own interest.

2. In this century quality access to information and communication technology is very essential. So, required infrastructure must reach every nook and corner of the country so that poor students can continue learning during natural disasters. Students should be given financial aids like internet packages. Deployment of public fund is necessary to fix the internet gap to ensure digital learning. Government and private organisations should put forward suggestive measures to address issue concerning digital education.

3. After opening of schools and colleges once regular classes commences institutions should conduct workshop for students and faculties to make them more acquainted with latest technologies so that they become tech-savvy and participate in online classes more smoothly than before.

4. The rate of school drop outs can be lessened by keeping note whether all students are turning up in schools after reopening of schools. School authorities can try contacting with the family of the students who will not rejoin school post normal classes resume.

5. In order to bring about more transparency online examination needs to be more systematized. This can be done by using artificial intelligence. Remote proctor maintains integrity of tests and flags examination in case of detection of suspicious activity. Remote proctor can commence live chat with examinees during tests. Remote proctor can detect whether the candidate is getting any help from surroundings and ends the test in case the face of the candidate is not visible. Thus the use of AI clubbed with proper assistance from IT department during examinations can make the examinations more translucent and flawless.

6. There are multiple online learning platforms which provides for different types of programmes for every subjects. These platforms provide different assessment parameters with different levels of certifications. So it is now necessary to establish quality assurance mechanism and ranking system of these online platforms by Higher Education Institutions.

7. India must develop creative strategies to assure continuation of education of children living in remote areas in adverse situations like pandemic and natural disasters. Government can take the help of NGOs if the workers of NGOs

show eager to shoulder some responsibility in the times of crisis. Members of NGOs can visit these children twice a week to help them with their studies.

8. It is also necessary that students of all ages need constant support and motivation from family, friends and teachers during crisis situations otherwise they will succumb to depression. Organising counselling situations and cultural programmes and online competition for students can help a lot. Besides this the poor and backward students need some sort of reassurance that their career is not at stake and they will shine again.

9. The teachers need to become more broad minded to break free the shackles they have i.e. the psychological procrastination they have self-imposed. They seem to be reluctant in adopting new technology. Although during the lockdown teachers have attended several workshops still they prefer to stay away from an innovative temperament. They should keep in mind that it is not about how many resources they have but how they can fruitfully use the resources in hand and how efficiently they can make their students use those resources. However the onus is on the students to develop temperament for self-directed learning with the availability of various opportunities on internet.

10. Educational institutions should also take care of the well-being of their staffs. Their job should be secured.

11. India requires more digital campuses with campus area network so that students can acquire laptops at a cheaper price and can get access to online resources easily. Government should set up local area network and public television with cable connection at remote places so that poor students face fewer issues in attending classes.

12. Anganwadi workers play a pivotal role in rural regions of India for early childhood development. In order to ensure proper nutrition intake to women children the frontline workers are providing ration by door-to-door service in this pandemic situation without having enough resources. The anganwadi workers have spread necessary information to the community about the corona virus. The frontline workers are providing online teaching assistance and study materials to parents. The anganwadi workers even have tried to curb domestic violence

against women during pandemic. Thus, more support, training and resources from Government is required to the anganwadi workers to fight against any adverse situation confronting the nation.

13. Teachers need to understand that just because students are at home does not mean they are free of responsibilities. Therefore when the time comes to give assignments then need to take in account the overall situation of the students at home. They also need to understand that not all students come from a well off family and that it effects the education of the student as they are unable to attend classes due to plethora of reasons .

14. Teachers should deter from admitting too many students in one meeting as in this scenario students will not get enough attention from teachers as doubts of so many students can not be clarified at a time.

Conclusion

According to the World Economic Forum, “the Covid-19 pandemic also has changed the way how several people receive and impart education.”In order to find new solutions for new problems, it is necessary to bring in some fundamental changes and innovations. Teachers are reluctant in accepting any change as they have become accustomed to traditional modes of teaching. However, amidst this crisis, accepting the change is the only option and the education sector must chalk out innovative practices. On the other hand we cannot forget the students who are less affluent and do not have access to technology, therefore, they may miss classes occurring online. This pandemic has shown us that life is so unpredictable and that mankind must be ready to face all sorts of challenges. Planning is the key, no plan can be executed without proper planning, there must be plan A and plan B in case one plan fails the other can be adapted. Planning can be done effectively with reasonable foresight about the possible upcoming challenging situations. The systems of educational institutions must be resilient enough to ensure presence of critical thinking and survival in crisis situation skills in their students. “The key lesson for others may be to embrace e-learning technology before disaster strikes!” . If online learning had already been mastered beforehand then the teachers and

students would have faced little problem.(Dhawan ,2020). The time spent on learning different online applications could have been utilised in a more productive way.

A high level of preparedness is required to quickly adapt and adjust to the changes in our surroundings. Institutions must devise contingency plans to deal with challenges like pandemics and natural disasters. Teaching strategies such as “lectures, case-study, debates, discussions, experiential learning, brainstorming sessions, games, drills,” can be used to ensure efficient teaching-learning practices. Teaching processes should be made more interesting to help students cope up with this crisis. Students must be encouraged to engage in interactive sessions with teachers. It has been found in the study that most of the students do not like long lectures so small breaks between online classes is necessary. This will lessen the psychological trauma, anxiety and pressure. Quality management programs are crux mechanism for success of online learning. Disasters and pandemic usually create a lot of tensions and hardships therefore, technology should be deeply studied to provide for smooth running of educational sectors.

It is to be noted that not only do structural improvements in the school system need to be made; steps should also be implemented to reduce the economic impact on poor families in order to reduce child labour and exploitation. Students are facing a lot of stress as a result of reduced mobility during lockdown this issue need to be addressed more effectively. All that is necessary is a joint effort between the public sector, the corporate sector, and civil society to maintain India's hard-won advances in the areas of nutrition, health, education, and economy during the previous few decades(Alvi et al.,2020).

Reference

- [1] Asian News International.(2020, September 28).PIL in SC seeks guidelines regarding online virtual classes.HindustanTimes.https://www.hindustantimes.com/education/pil-in-sc-seeks-guidelines-regarding-online-virtual-classes/story-pkRS2fqbwFccCC6Acj63dK_amp.html

- [2] Alvi,M., & Gupta,M.(2020).Learning in times of lockdown: how Covid-19 is affecting education and food security in India.Food Security,12,793–796.<https://doi.org/10.1007/s12571-020-01065-4>
- [3] Dhawan,S.(2020).Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*,49(1),5–22.DOI : 10.1177/0047239520934018.
- [4] Thakur,J.(2020,October 14).Covid-19: Calcutta HC rules in favour of guardians, tells 145 schools to slash fees by 20%.*HindustanTimes*.<https://www.hindustantimes.com/education/covid-19-relief-for-guardians-as-calcutta-high-court-slashes-school-fees-by-20/story-XaWBjA5jCAgIxO2d40Z3J.html>
- [5] INDIAN NATIONAL COMMISSION FOR COOPERATION WITH UNESCO RESPONSE TO COVID 19. https://www.education.gov.in/sites/upload_files/mhrd/files/inccu_0.pdf
- [6] Jena, P.K.(2020).Impact of pandemic COVID-19 on education in India. *International Journal of Current Research*,12(7),12582-12586.DOI:<https://doi.org/10.24941/ijcr.39209.07.2020>
- [7] Joshi,A.,Vinay,M., & Bhaskar,P.(2021)Impact of coronavirus pandemic on the Indian education sector: perspectives of teachers on online teaching and assessments.*Interactive Technology and Smart Education*,18(2),205-226.DOI 10.1108/ITSE-06-2020-0087
- [8] Mahapatra,A.,& Sharma,P.(2020).Education in times of COVID-19 pandemic: Academic stress and its psychosocial impact on children and adolescents in India.*International Journal of Social Psychiatry*,67(4),397-399.DOI: 10.1177/0020764020961801
- [9] Muthuprasad,T. Aiswarya, S.Aditya, K.S.Jha,G.K.(2021).Students' perception and preference for online education in India during COVID -19 pandemic.*Social Sciences & Humanities Open*,3(1).<https://www.sciencedirect.com/science/article/pii/S2590291120300905>
- [10] Rautray,S.(2020, December 16).Provide facilities for online classes to children in care homes, Supreme Court directs states.*TheEconomicTimes*.<https://economictimes.indiatimes.com/news/politics-and-nation/provide-facilities-for-online-classes-to-children-in-care-homes-supreme-court-directs-states/articleshow/79750275.cms?from=mdr>
- [11] Press Trust of India.(2021, February 11).Gadgets,internet to poor students: Supreme Court stays HC verdict.ZEEBUSINESS.<https://www.zeebiz.com/india/news-gadgets-internet-to-poor-students-supreme-court-stays-hc-verdict-149185>
- [12] Tejedor, S., Cervi, L., Tusa, F., & Parola, A. (2020). Education in times of pandemic: Reflections of students and teachers on virtual university teaching in Spain, Italy and Ecuador. *Latin Journal of Social Communication*, 2020(78), 1-21. <https://doi.org/10.4185/RLCS-2020-1466>