

Digital Educational Accessibility during Pandemic

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ABSTRACT

From the last few years, the Internet has grown from being nearly non-existent into the largest, most accessible database of information ever created. Growing internet facilities helped us a lot in changing the traditional teaching methods in classroom making and education more accessible. COVID 19 worldwide is leading to a tremendous transition in the education system. The current pandemic brought a prodigious paradigm shift from the traditional method of teaching to modern or technological teaching. Teachers are now taking a complete virtual class where they try to input more creative use of audiovisual aids to make the class more interesting and trying to provide better conceptual learning using videos. The interaction would be a greater task in a specified time for teachers in online classes. Teachers were also not into so much technology or tech-savvy in today's era as they were feeling good to go with either only traditional methods or a combination of the traditional and smart classroom but COVID 19 made them learn technology better. Teacher's tech friendliness is of utmost importance to create successful online teaching. I, over here, assessed some basic asked from 50 teachers regarding the usage of the online platform for teaching, their tech friendliness, and whether they think this online class is productive or not. This questionnaire was prepared when online education had just started during this pandemic and every teacher was on the initial stage of flight into digital teaching and learning. The results show mixed responses of the teachers regarding the usage of the digital environment.

Keywords: COVID-19, Lockdown, Online education, Educational platforms, teaching aids, Productivity

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INTRODUCTION

Education

Education is defined as the process of imparting knowledge, skills, values, norms and culture from one generation to another in a society. Education is a continuous process (eternal) to a higher setting for humans to have evolved physically and mentally, which is free and conscious and manifested in nature around intellectual, emotional, humanity and man.

According to National Education System, education is a conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners are actively developing the potential for him to have the spiritual strength of religious, self-control, personality, intelligence, character and skills required himself, community, nation and states.

Online education

Online education is a form of education where students use their own electronic devices like computers, mobile phones, tablets through the internet. Students who want to pursue education along with doing a full time or part time job opt to go with online education or distance learning making to make money and completing required course programmes both at same time. These online course programmes are conducted using digital technologies provided by distance education institutes such as Computer-based training, Web-based training, online training, electronic learning, mobile learning, computer-aided, distance education and online education. Online program gives flexibility to the learners. At the same time, it allows everyone to study and take tests at a time and place that works best for them, learn at their own pace, and transition through their courses faster.

Coronavirus

Coronavirus disease specifically known to us as COVID-19 is an infectious disease caused by a newly discovered coronavirus initiated from place Wuhan in China. Most people infected with this virus will experience mild to moderate respiratory illness and recover without requiring special treatment starting with some common symptoms like that in the common flue. People having medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more prone to develop serious illness. For preventing and slow down transmission we need to be well informed about the COVID-19 virus, the disease it causes, and

how it spreads. To prevent infection we should wash our hands or use an alcohol-based rub frequently and not touching our face. It's a communicable disease that spreads through saliva droplets or nose discharge from an infected person coughs or sneezes to a healthy person, so it's important that you also practice coughing or sneezing into a flexed elbow.

Pandemic and education

There is budge around of online education in teacher and student community. Why are we so concerned about online education all of sudden? With the ongoing spread of the coronavirus, technology and online platform have become increasingly essential. When adapting to this new scenario, educational institutes quickly evolved their digital tool and platform to ensure uninterrupted education delivery to their isolated students. As this crisis is burgeoning, there seems no other alternative for online learning. There will be some return to traditional teaching, but this forced experiment will have a lasting effect. In India, universities, colleges, and schools have started delivery of learning programs through various online channels. Now as per the situation, question arises: are these channels effective, re teachers having suitable devices to take online classes, do students understand the content effectively, how to cope up with problem regarding network, will teachers be able to adapt to technology so fast (especially aged teachers), will teachers be able to resist the higher screening time, and if every student have the feasibility to attend these courses or not. There are various other issues regarding using online platform of education. There is no doubt that we are left with this option only, but we also have to consider various issues related to online education as this has become the necessity of current situation.

According to report print by The Indian Express (June 13, 2020): “With regular classes unlikely to restart anytime soon, schools across the country have resorted to online lessons. But the parents of preschoolers and kindergarteners are a harried lot. From making sure at least one parent is free for duration of the classes to risking damage to computers they need for office work to finishing assignments on time, many parents feel they are being put to too much trouble for relatively nothing.”

OBJECTIVE OF THE STUDY

To study the

- a) Type of virtual platform used by teacher for education

- b) Compatibility of teachers with online devices
- c) Views regarding online education system during pandemic

DELIMITATION OF THE STUDY

- a) The study is limited to the teachers teaching in urban schools area.
- b) The study is limited to teaching taking online classes during the lockdown.

METHODOLOGY

For a better understanding of prevailing situation, researcher conducted a survey to study the shift of education from traditional method to virtual mode. The questionnaire has been designed to assess the views of teachers regarding online classes and contains 15 questions. I, over here, assessed questionnaire from 49 teachers. Descriptive method was used to conduct this research.

Sample: Data was collected from school teachers taking online classes in an urban area. The sample comprises of 49 participants residing in different regions of India. Out of the 44 respondents: 17, 10, 6, and 8 were from Panchkula, Chandigarh, Delhi, and Punjab respectively and one each from Himachal Pradesh, Madhya Pradesh and Hyderabad, while 5 respondents haven't disclosed their locations.

Tools and Procedure: Self-prepared questionnaire consisting of 15 questions was used to collect the data that were distributed to the teachers teaching in different regions through google form by creating a link for the questionnaire and later was shared through e-mail and WhatsApp to teachers teaching in different schools.

ANALYSIS AND INTERPRETATION OF THE RESULTS

The responses from the participant 49 teachers have been visualized in pie-chart form. The responses collected were analysed and interpreted as under:

- 1) Responses from the teachers regarding platform for online classes was gathered and found that 61.2% of teachers use Zoom app, 16.3% use Microsoft team whereas rest of the teachers use apps like YouTube, Google meet, Google classes, Lark, Akshit, Edmodo, Skype, and WhatsApp. Some of the teachers are using self-made videos and circulating in their class WhatsApp group also. Zoom and other video-tools are for places where parents are tech

savvy and internet connections are reliable. In smaller towns, the teaching and learning are happening on WhatsApp.

- 2) From the responses as shown in figure 1, it was found that 65.3% of teachers prefer taking classes from mobile, 26.5% take from their laptop or computer and only 8.2% of teachers use tablet. Though mobile and tablet are considered handy and comfortable, but don't provide much functions as compared to laptops.



- 3) From the responses shown in figure 2, it was found that 69.4% teachers used mobile data for online classes, 24.5% use Wi-Fi and rest use broadband. According to the availability, teachers use mobile data's internet connection rather than broadband and Wi-Fi for conducting their online sessions. Though the charges for Broadband and Wi-Fi are more as compared to mobile data, but mobile data fails to provide the good network quality for conduction of classes smoothly.
- 4) From the responses as shown in figure 3, it is found that equal percentage i.e., 46.9% of teachers work on daily basis and alternative days. Whereas only 6.2% teachers work on weekly basis. Online classes are the only way to provide education to the students in the current situation. But there must be appropriate gaps and relaxation as teachers need to take care of their families and the screening time also needs to be maintained for both children and teachers.

Online classes take place on
41 responses

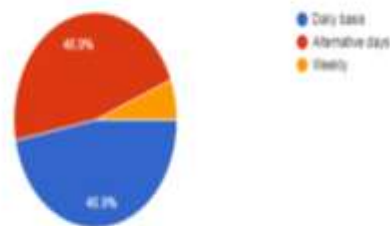


Figure 3

I think that online platform chosen by school authority is secure
41 responses

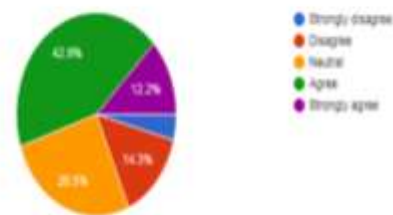


Figure 4

- 5) From the responses as shown in figure 4, 55.5% teachers reported that the online platforms chosen by authority are secure whereas 18.4% teachers reported as unsafe platform.
- 6) From the survey responses as recorded in figure 5, we can observe that approx. 30% teachers agree that they have strong internet connectivity to take hassle free classes whereas 30.6% teachers have bad connectivity. For conducting smooth online classes, strong and uninterrupted connectivity is a key element which is obtained from broadband or Wi-Fi most probably. As already discussed above, many of the teachers use mobile internet which doesn't give a good and strong network connection.

I get strong and uninterrupted network connectivity throughout online session
49 responses

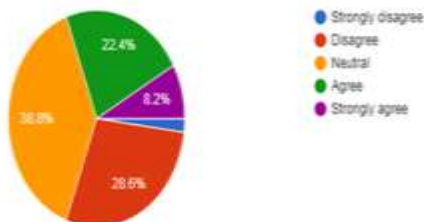


Figure 5

I am handy with the online platform being used and able to perform all the required functions for taking online class
49 responses

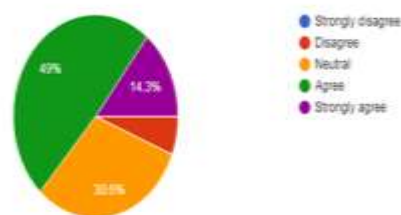
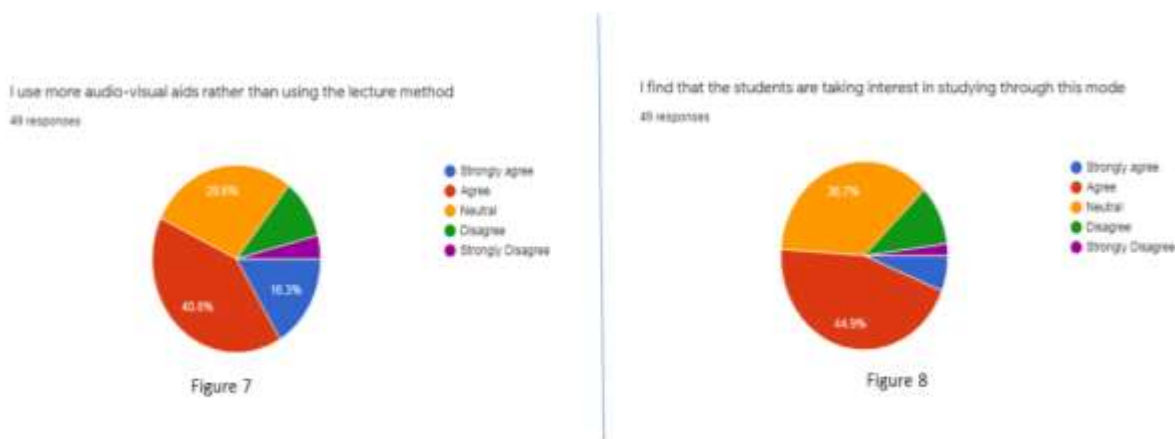


Figure 6

- 7) From the responses as shown in figure 6 regarding the ease of handling of devices for online teaching, teachers reported that more than 60% of teachers are handy with devices and are

able to perform all the functions easily whereas 30.6% of teachers are handling good with these all.

- 8) From the responses as shown in figure 7, we found that more than 50% of teachers are using audio-visual aids rather than using the lecture method. In this digital learning situation, using lecture method is not going to bring success in inculcating knowledge in students. Teachers need to be more creative using audio-visual aids to attract the student's attention and making learning fun and interesting.



- 9) From the responses as shown in figure 8, we can observe almost half the percent teachers reported that students are enjoying and taking interest in online classes. In real classroom, education is majorly focused on providing practical situations for gaining conceptual clarity to students. Students are not much attentive in online classroom due to various problems like network issues, long screening hours, class timings etc. So teachers need to twist and turn their topic with lots of interest gaining activity and teaching aids so as to keep their interest alive. But sometime it may not be possible to the fullest extent to gain their interest.
- 10) From the responses as shown in figure 9, more than 70% of teachers agreed that number of classes being taken by them per day is appropriate. Classes on initial basis are lesser as people are in wait of unlock and situations to be calming down soon so that schools can open at earliest. But the continuous rapid increase in cases of life-threatening disease is making us all to sit inside home to be safe. So most probably 3-4 classes per day of an hour or less is provided and teachers feel bit satisfied. Continuous sitting and increase in screening time as compared to normal days is still disturbing them.

I think that the number of classes being taken per day is appropriate
49 responses

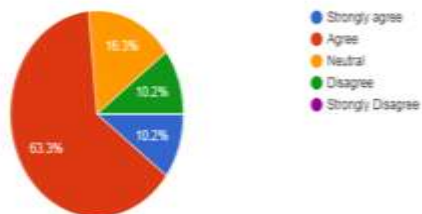


Figure 9

I think that the teacher-student interaction is through this mode is very high
49 responses

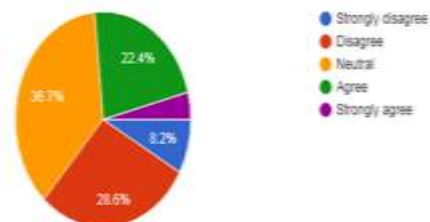


Figure 10

11) From the responses as shown in figure 10, we found that approx. 36% of teachers say that teacher-student interaction is not that strong when we compare to real classroom, whereas 36.7% of teachers feel there is good interaction through online mode also.

12) From the responses as shown in figure 11, we can conclude that above 50% of teachers are trying hard to incorporate creativity along with their subject content so as to gain students interaction. Teachers are spending more time on making their class attractive using PPT having lots of picture and using videos to show students and giving activities which they can accomplish with the things they are having currently in home. So incorporating creativity is the only way to make student attentive and give students better understanding and conceptual clarity.

I think creativity along with subject content is incorporated more so as to gain students attraction or interest
49 responses

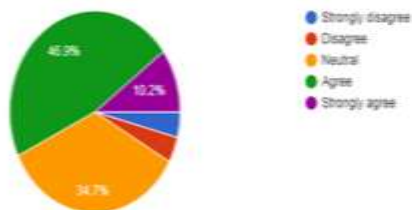


Figure 11

I accomplish my lesson plan in a scheduled time frame using this method
49 responses

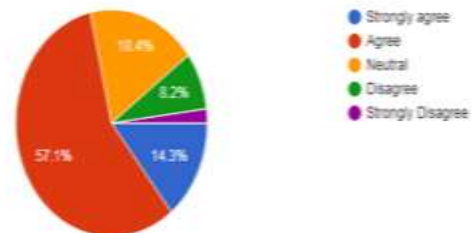
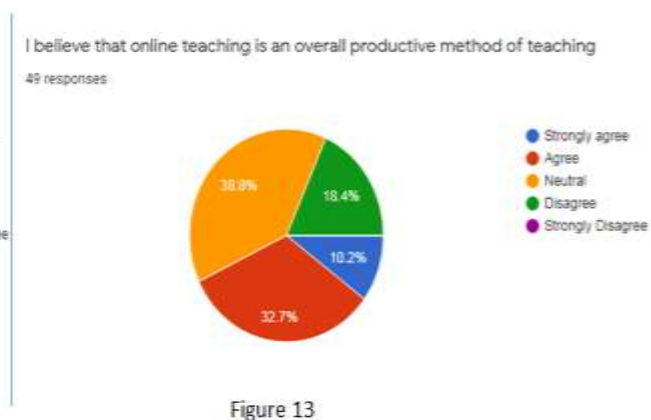
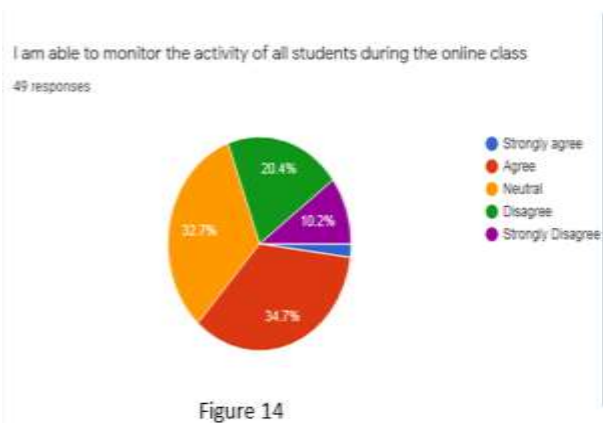


Figure 12

13) From figure 12 we can say that 70% of them are succeeding in accomplishing the task. Accomplishing planned lesson plan in specified time where there are many interruptions like

network problem, disturbance from students' end etc. becomes a difficult task altogether. But still teachers are putting their best to move with a decided lesson plan.

14) From the responses as shown in figure 13, we found that 30.6% of teachers are finding it difficult to monitor students whereas 32.7% of teachers are managing well. Monitoring students is the key feature to make students concentrate on the topic. Interaction where one to one class takes place, monitoring becomes easy. Online platforms like Zoom, Teams etc. don't show all students on a single screen, which make teachers difficult to monitor every student. And while providing lectures with continuous change of slide in their PPT and playing videos, teachers are unable to monitor them at the same time.



15) Regarding productivity of teaching through online mode and keeping all of the above factors into consideration, 42.9% of the teachers believe that online classes are productive as shown in figure 14. But few teachers site this as not productive in comparison to the real life classroom where practical presence of students and teachers helps in easy transfer of knowledge and giving them in-depth understanding and conceptual clarity.

CONCLUSION

The pandemic evolved with in-depth problems in education and unpredictable challenges for educators. The thought of skipping college and studying from home has always sounded exciting—until one considers the logistics. E-learning is not a new concept but the outbreak of shifted the whole education system into online mode. According to UNESCO, since the outbreak of COVID-19 began, some 1.37 billion students in 138 countries worldwide have been affected

by school and higher educational institutions. All school teachers and university lecturers are no longer in the classroom. Since the whole country is under lockdown, e-education is the only and best way left out for all of us to at least avoid a complete breakdown of work and education. Educational institutions introduced online educational platforms such as Teams, Zoom, Skype, and Google Classroom, etc. to engage with students. Around the world, digital educational platforms are helping a lot in creating schools and learning spaces. This COVID-19 brought new challenges and opportunities that have turned up for administration, teachers, parents, and students, but we have also entered areas of many uncertainties. But as billions across the world switch to work from home due to the COVID-19 pandemic, we may be putting our private life and personal data at risk. Platforms like Zoom were charged with robbing a host of other personal information such as each caller's location, operating system, IP address, and the kind of device we are using, whether it's an Apple, Android or Windows device. So the classes which are going to be conducted throughout this current session, authorities must supervise the platform's security as the teachers' and students' data needs to be secured

The current pandemic brought a great paradigm shift from the traditional methods of teaching to modern or technological teaching. Though many private and some government schools started the smart classrooms, it was just for the topics that need to be visualized for better understanding and concept clarity. Now in wake of the current situation, teachers and students have to adapt to online teaching-learning, and the major responsibility of making such interactions effective lies with the teachers, and the administration has to play a supportive role. But there are various constraints to this channel. Due attention and measures have to be taken to include the students belonging to the deprived section of society so that they can also take benefit of this platform and get access to online learning amid this pandemic.

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