# Expansion of education system: Changing teaching in keyboard and screen

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*Abstract-* Impact of covid19 found on the economy of countries, its effect on the social and education world is also clearly visible. Since pandemic changed the basic structure of higher education system, society is now forced to convert itself into a virtual social space, so the education system is also forced to run with the help of keyboards and screens. Although there are many problems like money, digital equipment, digital devices, internet speed and availability, but in the coming times, India has to stand in a strong position parallel to the higher educational institutions of the world. This study, attempted to know how much students are liking this method, usefulness of the meth as well as how much teachers consider the education being done by keyboard and screen method.

*Index Terms-* Corona transition, education world, digital education, keyboard, screen, educational dialogue

## I. INTRODUCTION

### COVID 19 Pandemic and education

Corona infection, which was first observed in Wuhan city of China on December 31, 2019 (Kavanagh, 2020; Wu, Leung and Leung, 2020; Zhu et al., 2020). Thereafter, global spread of COVID-19 infection threatened the human life worldwide (Tahir and Batool, 2020). Engulfed almost the whole world, has changed not only economic but also social and educational values. While India's economic system has suffered heavy losses due to the corona infection, there are also some changes in the society, which are being seen as an extension of traditional methods.
Schools-colleges and universities have been closed for a long time due to corona infection and education was feared to be badly affected, in a country like India where even today basic facilities are not available, in the country it is a dream (Gülcan, 2015; Bhavya Bhasin, Gautam Gupta and Sumedha Malhotra, 2021; Nimavat et al., 2021; Zhao and Watterston, 2021). It seemed like but government departments together with private institutions have changed the meaning of education. Everyone is communicating knowledge through keyboards and screens. However, neither the students nor the teachers are fully prepared for this challenge. In such a situation, British Prime Minister Winston Churchill's statement that 'crisis should never be let go in vain' means that challenges should also be used as opportunities. The challenge of the corona pandemic can also be turned into an opportunity.

### Challenges for education due to pandemic

Recognizing these challenges, higher educational institutions are striving to create a conversational environment with less resources. Digital education seems to be taking the place of classroom teaching. Digital education platforms like 'Swayam' and 'Swayamprabha' had already been developed by the University Grants Commission and the Ministry of Human Resources, but they were being used very little [3, 5]. But today due to corona virus infection, the attention of students, researchers and teachers is now trying to see them as opportunities in challenges (Madeshia and Verma, 2020; Khan et al., 2021; Maatuk et al., 2021).

### Need and importance of education for a life

According to Gandhiji, 'Education means all round development of the best physical, mental and spiritual powers inherent in the child' i.e. complete development of the child is not only meant to make a student read or write, but it is necessary that he acquires the right

knowledge (Dehury and Bai, 2006; Rao, 2020). Tagore says that 'highest education establishes a harmonious relationship with all beings in our life', similarly efforts are being made to harmonize with digital education in the crisis of Corona (Connell, 2010; Lal, 2018). Digital learning can be understood as a web based education, which effectively uses information technology to impart knowledge to the students (Gülcan, 2015). In this, instead of paper and pen, keyboard and screen are used. Through this you can share any audio-video or your thoughts digitally (Daniel, 2020; Gupta and Golplani, 2020).

In urban areas, students have more technical means, so they have already been using it. It was also being used by the teachers as the main means of education, so there is a positivity to be seen in this area as through this you can easily get the solution of your problem sitting at home. The Prime Minister's Rural Digital Literacy Campaign was also launched by the Modi government, which is considered to be the world's largest literacy campaign. Under this campaign, there was talk of making 60 million households digitally literate in rural India, but this program could not be completely successful.

## II. PROBLEM STATEMENT

The requisites of digital education are not only merely the resources like internet, mobile or laptop, tablet or desktop, software and medium of digital classes but also the challenges are training of teachers, students, parents, who are the users. Most of the software demands registering through an email id, which is not a cup of tea to many students and parents of remote areas. The problem of internet connectivity and speed is also a major one in remote and rural areas. This research seeks the answers of many problems like (1) whether students are able to adjust with digital education, (2) how prepared are the students and teachers for keyboard and screen and (3) Is there a need for expansion of keyboard and screen education post corona pandemic times.

## III. METHODOLOGY

Questionnaires were prepared for the purpose and observation method was also used and finally it was used for data collection. After collecting data from 30 students and 20 professors related to various government, non-government and private colleges and universities of Meerut, it has been analysed. The corona pandemic has completely changed the traditional way of Indian education system. Students living in rural and urban areas have different experiences regarding the education affected due to Corona infection. The study started with drafting of a questionnaire which consists the possible problems due to changing teaching in keyboard and screen. The collected data analysed and critical factors identified and the remedies also suggested.

## IV. DATA COLLECTION AND ANALYSIS

As per finalized objectives, a suitable questionnaire has been prepared keeping it easy and relevant for students and teachers. All the data has been collected in a comfortable environment making it very clear and point to point. All collected data then has been observed and analyzed to find out results after deep interpretation and conclusions have been drawn.

The experience of teaching and learning in digital mode is quite different with traditional talk and chalk method of classroom teachings hence it's very important to find out whether the students and teachers are satisfied with digital and online method of studies. There is a vast difference in the experiences of students and teachers regarding the ongoing online education through various apps. While 46 percent students are satisfied with online education, 14 percent students say that all their problems are not being solved by online studies. If we talk about professors, 16 percent teachers say that they are satisfied with online learning, but 24 percent teachers are not happy with it, because with the ease with which the subject can be understood and explained in a face-to-face classroom, it cannot be explained in online class. Some points can be explained, but not all points can be fully explained.

The second question is what kind of problems are coming during online studies? There is variety of problems faced by students as well as teachers during online studies as interruption in internet connectivity during studies, frequent mobile calls or messages during studies in case of mobile device usage during studies, unavailability of proper gadgets suitable enough for efficient studies. After talking on this topic, we found that 4 percent of the students do not have a mobile phone. At the same time, 4 percent of the students do not have a laptop. However, the biggest problem is with connectivity. Internet connectivity is the biggest problem in rural areas. The other problem emerges is that students get a limited internet access, which ends up in online video classes. There is no

problem with teachers regarding mobile, but 6 percent teachers have problem with laptop. If we talk about connectivity, like students, teachers too are facing this problem. 14 percent of teachers say they have a problem with the internet. But it can be said that the problem of internet connectivity in the lockdown period has reduced as compared to earlier.

The third question of survey is are you digitally literate? Teachers were not very friendly using these devices and methods of teaching. Many of them have not been digitally trained or ready to use all these methods. There is a difference between students studying in private and government colleges and universities regarding digital education. There are many such students who do not even have the knowledge to make PPT. A 42 % students consider themselves to be digitally literate, while 18 percent students say that they are not digitally literate. If we talk about teachers, then 34 percent of the teachers are digitally literate, but teachers who are older and have been teaching in a very traditional way, problems like making PPT, creating audio-video content are coming in front of them. But they are working to empower themselves digitally with the help of other people and are taking their knowledge and skills to the students.

The fourth question of survey is have you used online education in any form before the corona infection ? Before the breakdown of corona pandemic, a few students and teachers had been using the digital platforms of teaching and learning purposes. Most of them belonged to private schools and colleges using smart classes and digital boards. Those who were previously acquainted with digital mode of teaching and learning, felt ease in conducting sessions using online medium but to those who were not well acquainted with new methods of teaching learning, it was a hard nut to crack. A 34 percent of the students have been taking education in some form or the other online, but 26 percent of the students say that they did not take any online education, they have taken the knowledge in the traditional way. While 34 percent of professors say that they have acquired online knowledge in various ways, but there are 6 percent teachers who still believe and give preference to the traditional method. There has been a drastic increment in numbers of users for online education before and after corona pandemic effect.

The last question of questionnaire was, does keyboard and screen education need to be expanded after the corona infection is over? When the people have embraced these new methods of teaching and learning, question arises whether these methods will stay after corona pandemic and if yes then in what extent user agree to expand the horizon of online teaching and learning methods. What changes are to be accommodated to make it more efficient, user friendly and productive and will it be aligned along with the traditional methods of teaching and learning?

Teaching through keyboard and screen continues, going through various problems, but what will be its future, 44 percent of the students say that it is necessary to expand keyboard and screen education because it is the demand of the future. If we have not made ourselves digitally literate and do not understand this expansion of education, then we will be left behind. However, 16 percent of the students did not appear in favour of it. They say that education should be done in the traditional way. If we talk about teachers, then with some conditions, teachers talk about the expansion of keyboard and screen education. Just as the students say that we will be left behind, in the same way teachers have to prepare themselves to prepare the country builders and they welcome this new method of teaching whole heartedly. Because in the coming time digital education will be expanded further. The corona pandemic has proved that you have to prepare yourself. The best way to compete in teaching-learning field is to understand, analyse and calculate the futuristic model of education and to imbibe all the necessary skills set and proficiency in order to be future ready as well as to avoid the awful circumstances of Paradigm shift.

## V. RESULTS AND DISCUSSION

The online education is present and future of education industry. We have observed a boost in users of online education. Many suitable mediums and platforms are available free of cost as well as paid versions of online education are also available giving multiple options to make it more comprehensive. It has opened many doors of opportunities to various people associated with teaching and learning directly and indirectly. Yet it brings many challenges as well. Internet connectivity is one major issue to be resolved especially in remote and rural areas. It also challenges IT industries to make software which can work consuming less storage and efficient even in low internet speed. Next challenge in online education as per perceived feedbacks is availability of electronic gadgets like mobile, laptops, desktops and tablets in sufficient numbers in each family as per the requirement. Government needs to take initiative to either provide the gadgets to students of under privileged family or to provide subsidies in purchasing them because along with the purchasing cost, monthly bills of internet also adds on to the pocket of parent in this financial crisis along with corona pandemic. It will motivate more number of students to be benefitted through online education. The discussed data against the different selected factors is also represented graphically in Figure 1.  (a) effect of online studies (b) digital literacy (c) use of online education before COVID19 (d) utility of keyboard and screen education (e) kind of problems in pandemic

**Figure 1** Responses against different selected factors (a) effect of online studies (b) digital literacy (c) use of online education before COVID19 (d) utility of keyboard and screen education (e) kind of problems in pandemic
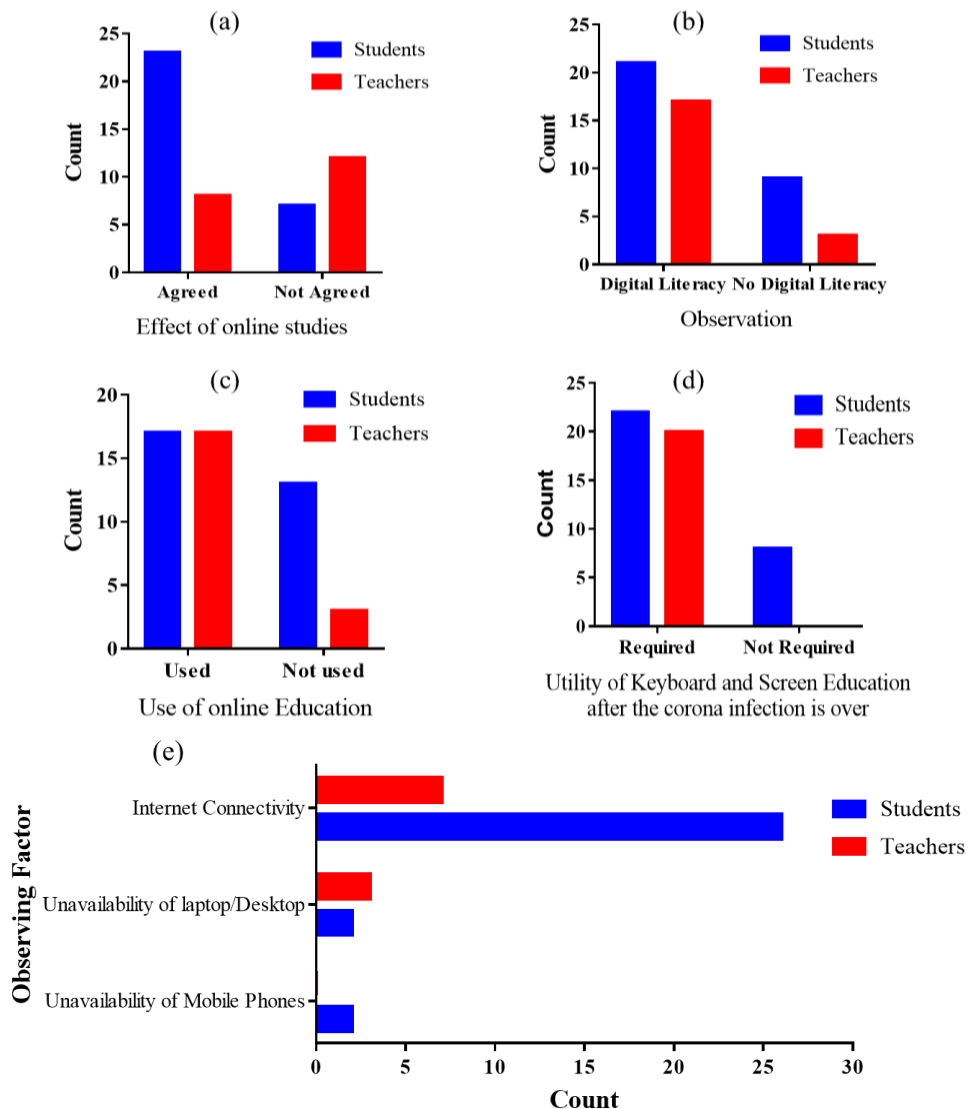
Next observed challenge is competency of teachers and learners using technology and digital education. Most of teachers aged above 45 years were not digitally literate or competent enough to make ppt, create audio-video content etc. 18 percent of students were also found to be digitally incompetent on imbibing education using online modes. Though government of India has been trying to accelerate the digital education by initiating many online programs like NPTEL, Swayamprabha etc. yet it has not been effective enough to make concern people get trained specially in government schools and colleges as per recorded data.

Students and teachers Combining these teacher student ratio about digital incompetency makes a good number hence a rigorous training program to make people tech-savvy is to be initiated by education stakeholders to make digital education program successful and productive. It has been observed by analyzing recorded data that more than 80 percent of student and teacher believes that online education horizon needs to be expended post corona pandemic which again invites education stakeholders to increase their attention and efforts for promoting digital education and to make its access quicker, more productive and cost savvy.

## VI.   CONCLUSION

Corona pandemic has completely changed our social and educational structure, we have to change ourselves with time to adapt. It is said in the Gita that change is the law of nature. That is why we have to change ourselves according to the need of the times. Everyone is favoring this changed form of teaching method in their own way. While the new generation is openly accepting this new method of teaching along with being digitally literate, teachers have also started preparing themselves to overcome this challenge. Although the Internet is like a bottomless ocean in front of the students, but the teachers have to do the job of filling the ocean in the ocean. What is necessary, what is right, understanding the psychological level of the students, the teachers have to reach them.

In this era of Corona transition, education of keyboard and screen has taught a lot. But there are many problems in front of us like digital literacy, digital divide, telecom infrastructure, capacity of online system, availability of laptops and desktops, software, educational equipment, online assessment, which the government will also have to take important steps to overcome.

One of the truths of technical education is that it does not make any distinction between a boy and a girl. It is also true that in the times to come, teaching and research in higher education will change from live faces to keyboards and screens. That is why teachers have to make a habit of establishing educational dialogue on digital platforms. Along with this, students also have to pay positive attention towards keyboard and screen education to establish themselves at par with the students of other countries.

There is a lot of confusion right now regarding the corona infection, in such a situation, sitting at home can keep yourself safe and at such times education from keyboard and screen can prove to be capable of educating you.

The Corona transition has certainly made an effort to accelerate the adoption of technology, but there is a need to strengthen the digital learning infrastructure. At the same time there is also a need to bring about drastic changes in the thought process in the minds of the students and academicians.

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