

Pandemic and Use of Modern Technologies in Education: Do We Otherwise Need Them?

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Abstract: The research article sheds light on the education system of India during the COVID-19 pandemic. Therefore, the usage of modern technologies for education during the pandemic situation is another description of this research article.

Modern technologies are very helpful for the progress of the education system of India and the importance of those modern technologies in the education system is also described in this research article. The secondary data collection method has adopted by the researcher in this research article. Furthermore, secondary data collection method was helpful for gathering more knowledge about the topic. In conclusion, it can be said that modern technology is effective and impactful on education system of India. Furthermore, it is identified that modern technologies are very needful not only in the pandemic situation but also in other times. The limitations of this research article are expenses and time. If there were more time and more budget then the researcher can find out more data about the topic.

Keyword: Pandemic situation, modern technologies, online learning process, education system

Introduction

Modern technology has changed and improved the education system of India. Thereafter, COVID-19 pandemic has significantly impacted the education system of India. Thus, during the pandemic situation the growth of internet users and modern technology users in India is remarkable. Therefore, the usage of modern technology along with the internet has increased at a large level during the COVID-19 pandemic. There is an annual growth of internet users in India and that is nearly **24%** and the total number of internet users in India in 2020 is nearly **574 million**. Apart from that, modern technology has impacted the rural areas of India during COVID19 pandemic and about **304 million** people in rural areas are registered as internet users in 2020. Thus, in 2019 the growth of internet users in rural areas is greater than

the users of urban areas in India (livemint, 2020). Hence, it can be said that modern technology has played an important role in the progress of the rural areas of India.

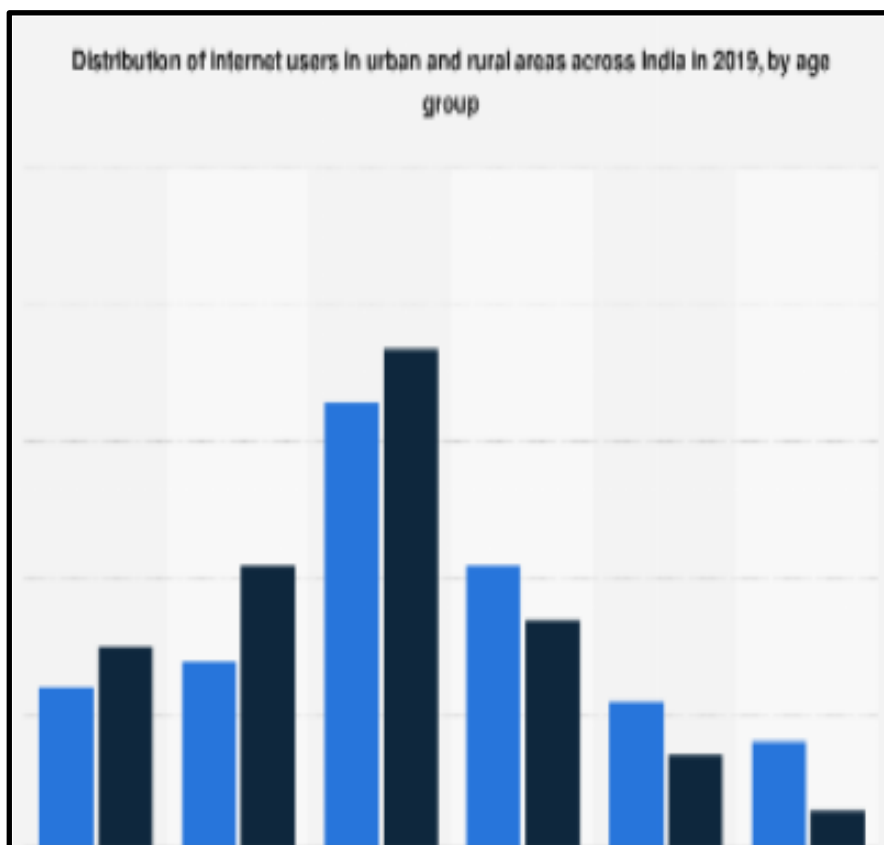


Figure 1: Internet users in urban and rural areas in India

(Source: livemint, 2020)

In this research article, the researcher has analysed the impact of COVID-19 pandemic on the education system of India. Moreover, the importance of modern technology in the progress of the rural areas of India and the progress of the education system of this country is analysed in this research article briefly. Furthermore, the importance of COVID19 pandemic in the growth of the modern technology users in India is described in this research article (Kumar *et al.* 2020). Therefore, the theory that the researcher has used for analysis of the concept of this topic, is also described in this research article. Thus, the research methods that are used by the researcher during this research article are another description of this research study. Furthermore, all the collected data is analysed in this research article significantly. The aim of this research article is to analyse the importance of the usage of modern technology in education during the pandemic situation.

Objectives

The objects of this research article are

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- To analyse the impact of COVID19 pandemic on the education system
- To understand the importance of modern technology in education
- To investigate the increment of using modern technology for education

Literature review

Impact of COVID19 on education

The COVID19 pandemic has impacted all the people of the world and the health of the people as well. Thus, the education system of India has also been impacted by the COVID19 pandemic in the 2019 and 2020 positively as well as negatively. Therefore, not only education but also the students in different states of India have been impacted by the pandemic situation. As all the industries, transports, businesses and companies were closed for a certain time during the lockdown due to the COVID19 pandemic and like that all the educational institutes of India were closed. In all over India, nearly *1.5 million* schools and educational institutes were closed and the whole education system of India was stopped (indiatoday, 2021). Along with these negative impacts there are some positive impacts too of COVID19 pandemic on the education system of India. The usage of modern technology such as the internet, mobile phones, laptops and others for education was not so popular in India. Thus, the pandemic situation has impacted the growth of modern technology users in India. The number of internet users has increased in the year 2020 during the pandemic in India.

Usage of modern technology in education during the pandemic

The pandemic of COVID19 has impacted not only the health and economy of the people but also the education system in all the world. Thus, all the education institutes and schools were closed during the pandemic situation in India and then it became necessary to use modern technologies for the progress of the education system of the country. Hence, India was not a developed country as the internet user remains only *24%* in 2019 before the pandemic in India (indiatoday, 2021). Moreover, in the rural areas of the country only *4%* people can afford the budget digital education. Therefore, after the pandemic situation and lockdown the number of technology users has increased not only in the urban areas but also in the rural areas of India. There are *624 million* internet users in the year 2021 and that is a huge increase of *47 million* from the previous year (datareportal, 2021). Thus, modern technology users in India are increasing day by day.

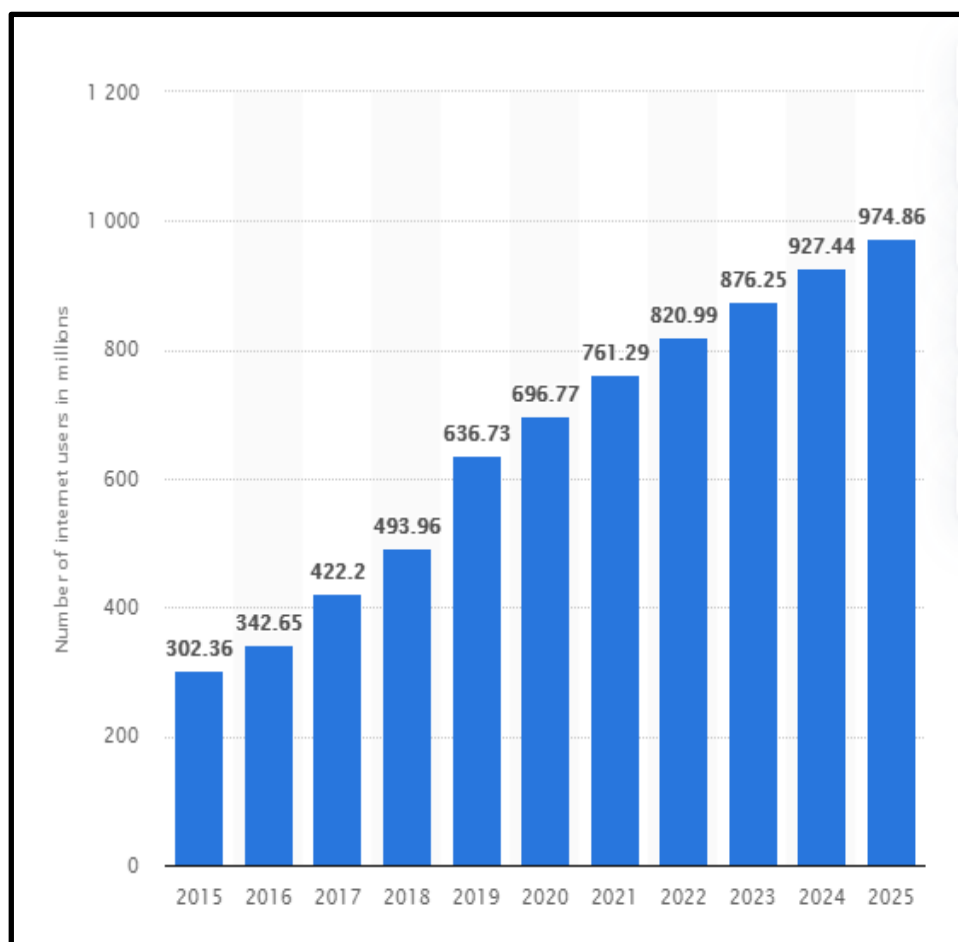


Figure 2: Increasing internet users in India

(Source: datareportal, 2021)

On the other hand, as online learning became necessary then modern technologies have played an important role in the progress of education in India. Therefore, in the COVID19 pandemic maintaining distance is very important and by the usage of modern technologies it was possible to resume the education with distance maintenance. Apart from that, the students can learn according to their interest by the usage of modern technologies as personalized learning is possible in the online learning process. Furthermore, modern technology helps to improve communication between students and teachers (Ravi, 2020). Therefore, there is a facility of resourcing in modern technology as it helps the students for self-learning. In addition to that, there are several types of methods for learning that are available in the online learning process and that is not only helpful for the students but also that is helpful for the teachers. Hence, these are the impacts or importance of modern technology on the education system of India during COVID19 pandemic.

Theoretical underpinnings

There are a lot of learning theories that can help the researcher to analyse proper data for this research article. Thus, the researcher has adopted the *cognitive learning theory* for this research article as the theory can be helpful for understanding the education system of India. Furthermore, the cognitive learning theory was helpful for the researcher to understand the concept of online learning (Pyunet *al.* 2020). Moreover, the theory helps to enhance the skills of problem solving and makes the brain sharper. Thus, it can be said that the cognitive learning theory was very helpful for the researcher to analyse the concept of online learning in this research article.

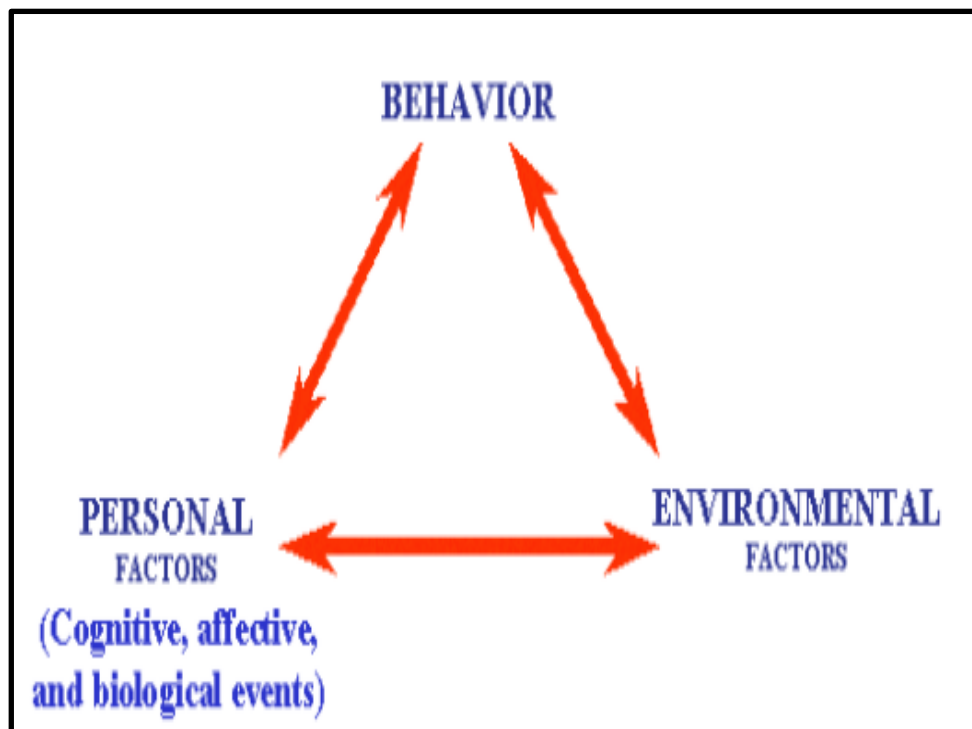


Figure 3: Cognitive learning theory

(source: Pyunet *al.* 2020)

Literature gap

The impact of COVID19 on the education system of India is described in this research article briefly but this is not described in previous articles significantly. Apart from that, the importance of modern technology in the progress of the education system of India during the COVID19 pandemic is also briefly analysed in this research article and that is not briefly described in the previous articles.

Proposed method

Data collection is a method of collecting proper and accurate data about the researcher's interest and need. There are two types of data collection methods such as primary data collection method and secondary data collection methods. Therefore, the researcher has adopted the *secondary data collection method* for this research article. Abundance of sources in the secondary data collection method made the data collection process easier. This is the reason for choosing the secondary data collection method by the researcher. The sources are books, journals, newspapers, magazines, government records and other published data (Olabode, 2019). Thus, the sources were helpful for the researcher to gain more knowledge about the impact of COVID19 pandemic on the education system of India. The inclusion criteria for conduction of secondary methods of data collection is 2015 to 2021. Along with that, the secondary data collection method was helpful for the researcher to collect proper data about online learning and its impact on the students in India.

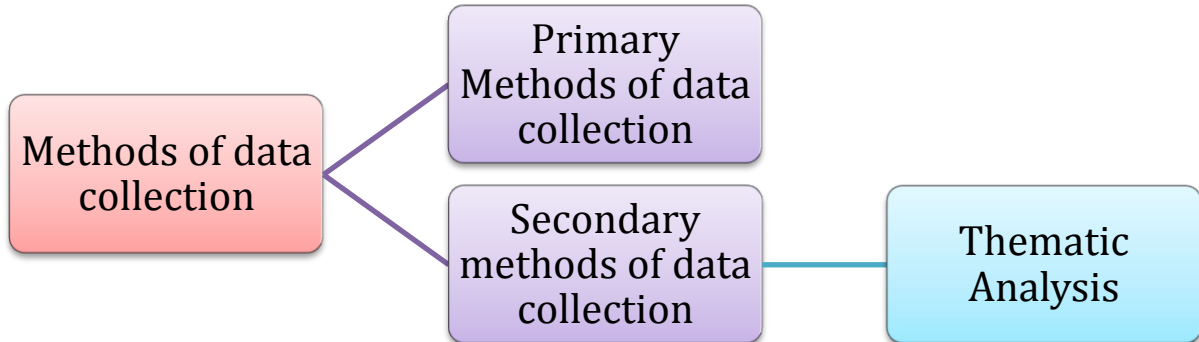


Figure 4: Data Collection Methods

(Source: influenced by Olabode, 2019).

Result and discussion

Theme 1: Usage of modern technology in India

There were a few people in India that used the internet, mobile phones and other modern technologies. Thus, the rural areas of India were not so progressed and the usage of modern technologies was not populated in the rural areas. During the COVID19 pandemic the internet users in rural areas of India have increased a lot (Bokdeet *al.* 2020). Furthermore, a large number of students are completing their education by the usage of modern technology. There were already a lot of online applications for education but a few people have used those apps before COVID19. Hence, now the rating of those applications has increased and that means the usage of those education online applications has increased.

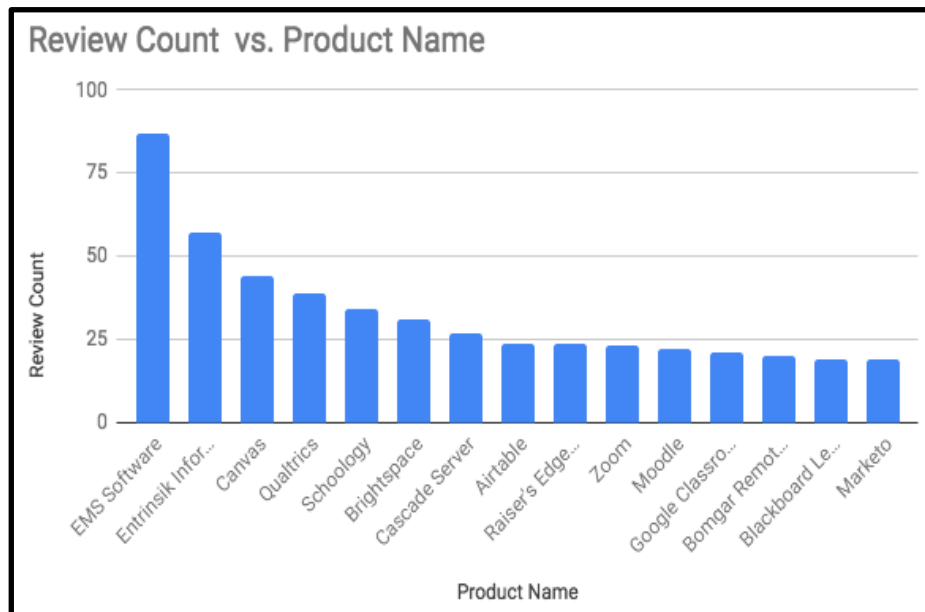


Figure 5: increasing education online apps users

(Source: Cheng *et al.* 2020)

On the other hand, there are so many facilities in the online learning process and the most important one is it helps the students to stay at home and complete their education during the COVID19 pandemic. Furthermore, there are so many new educational applications launched for the improvement of the education system of India during the pandemic situation. The names of those applications are canvas, airtable, zoom, qualtrics, moodle, google classroom, marketo, schoology, Wiseapp, EMS software and others (Cheng *et al.* 2020). Thus, it can be said that the usage of modern technology in education in India has increased at a great level. Furthermore, the increment of using modern technology in education helped in the progress of the education system of India.

Theme 2: Progress of education system in India

There is progress that can be noticed in the education system of India by using modern technology. As India was not so improved and the usage of modern technology for education was not developed. Thus, during the COVID19 pandemic when all the educational institutes and schools were closed for a certain time then it became important to use the online application for education. Therefore, a lot of online educational apps launched and the usage of those apps for education also increased. Nearly **82.6%** of the population that are rich have started using the online learning process during the pandemic situation. Apart from that, nearly **29.1%** of the poor population in India have started to use modern technologies for education (Mehendale, 2018). Along with that, a lot of people from the rural areas of India started to use internet and online apps for education and nearly **49.1%** people of rural areas used the online learning process in 2020. On the other hand, about **64.2%** people from urban areas of India started to use the online learning process to complete their education. Thus, this is the progress of the education system of India by the usage of different modern technologies in education. Hence, it can be said that modern technology has impacted the educational system of India significantly.

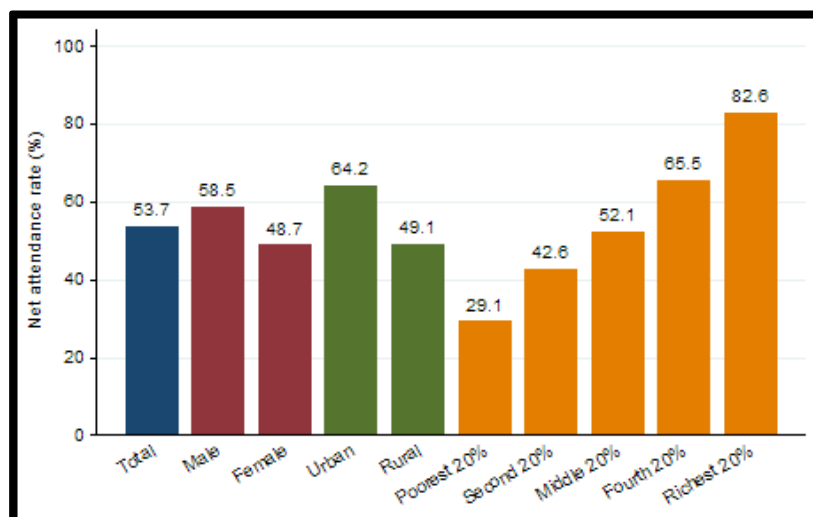


Figure 6: Several sectors of India's population using modern technology

(Source: Mehendale, 2018)

Discussion

It is identified that the usage of modern technologies is very helpful for the progress of the education system of India. Modern technologies help the students to complete their education by using the online applications in the pandemic situation. Thus, the COVID19 pandemic in the year 2019 has changed the overview of India as there are a large number of people using

modern technology in India. Therefore, not only the urban areas of India but also the rural areas of India have started using modern technologies or online learning processes for education. It is identified that along with the increasing internet users, the online educational apps users have also increased in the year 2020 in India (Chatterjee *et al.* 2020). Furthermore, there are a lot of facilities for using modern technologies in education such as it helps to gain knowledge according to the interest. Therefore, as the knowledge of the student increased the confidence and self-motivation also increased.

On the other hand, the online learning process provides a lot of learning methods and that helps the students to understand the concept and helps the teachers to describe the concept. Thereafter, the modern technologies help the students to improve their technical skills also. In addition to that, there is no particular time for learning from online applications. The student can learn any time so these technologies are helpful to manage the time (Öztürk, 2021). Furthermore, modern technologies help to enhance the thinking skills of the students and the communication skills too. As communication and collaboration skills are very important for the online learning process, modern technologies help to enhance those skills in the students (Mukhtar *et al.* 2020). Thus, it can be said that modern technologies are very helpful and impactful for the progress of the education system of India.

Future work

There are some recommendations or future works to do for improving the online learning system and the recommendations are described in this part of the research article. First of all establish the comfortableness in online learning that will help to make it normal for the students. Therefore, they should fix some goals that they will achieve by the usage of online learning. In addition to that, good communication between the students and teachers is very important during an online class because online learning is different from face to face interactions. Furthermore, communication among the students is also very important in the online learning process. Thus, these are the future works that will help to improve the online education system of India.

Conclusion

In conclusion, it can be said that modern technologies are very important for the progress of the education system of india. The modern technologies have helped the students a lot during the COVID19 pandemic when all the educational institutes were closed. Thus, at that time usage of modern technology became necessary to complete the education. In addition to that,

not only in the pandemic situation but also in other days the usage of modern technologies in education is really needed. As there are a lot of facilities along with this process helps the students to gain knowledge according to their interest. It will help in future progress of the education system of India. Thus, it can be said that the process of online learning is not only helpful for the students but also helpful for the progress of the education system of India.

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