

# **A Study Of Various Online Platforms And Education Based On These Online Platforms In Rural Area Of Maharashtra State During Covid-19 Pandemic**

**Running Title:** A Study Of Various Online Platforms

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## **1. Abstract:**

The COVID-19 has drastically and suddenly changed the view of education across the world. During the month of March of 2020 all the schools and colleges in fact all types of institutions were all most shut down to save faculties and students from infection to break the chain. Initially it was around two months of lock down; but because of high speed of its spread, lockdown was increased and fight with covid-19 was just increased and still on going. Since school colleges are the places where social distancing is little tough due to the presence of huge number of students, those cannot be opened by the government until the pandemic comes under control. In this situation, education was shifted to the method of technology based online platform based education. Although this is too early to pass the judgment on how corona pandemic will affect the education in long term, there are indications suggesting that it will have great impact on teaching learning methods. Information technology is playing a great role to support the education during COVID-19 lockdown. Due to use of online platforms at large scale in various countries, this is the best time of study about new ideas/thoughts regarding these digital platforms for delivering the education. This study presents the study of various online platforms used by educational institutions and overall its impact in rural parts of Maharashtra State in India to continue quality education in pandemic. These online platforms may continue even after the pandemic get over. For these online platforms there is no geographical boundary, so it becomes possible for experts/specialists to reach every corner of the world and even to rural/remote area also.

## **2. Introduction:**

Many medical experts from all over world, expressed and we have experienced that the lockdown is one of the main solution to avoid the spread of corona virus amongst the human being. In India, as we all know that, nationwide strict lockdown was implemented on 25 March 2020 for long duration during first wave of pandemic and it goes on continue during second wave of pandemic.

The Covid-19 pandemic and as usual the social distancing have affected human society, especially to education field. To keep online teaching, learning, evaluation, examination and research running, educational institutions have had to quickly adapt to the current and suddenly arrived situation. This situation has resulted in an unprecedented push to online education with the use of technology. As we all experienced that because of the COVID-19 lockdown all schools shut all across the world. Many reports said that; globally, over 1.2 billion children are out of the classroom.

The COVID-19 pandemic initiated sudden and dramatic technological transformation in the society. The pandemic forced us to take an extraordinary digital leap in our everyday life and practices, including teaching, learning, evaluation, examination and research. Education was transformed from a traditional classroom environment to a remote, technology based online platform. Suddenly, an entire generation of students started managing and mastering with online platforms to participate in their compulsory basic education.

Technology is kind of delivery system, which is used to communicate knowledge or ideas to a large number of students who are located at far rural areas. However there are many issues of network as well as technological requirements. Technological platforms are used to connect professors with the students, allow professors to share the study material (.PPT, .PDF, notes, links, and videos) and allow students to ask queries too. These online platforms are interactive. So in overall the performance of these online platforms is studied in this research.

### **2.1. Rational of the study:**

The decision to focus on this point is taken due to some facts. Such as due to covid-19 lockdown demand of various online platforms increased and they were rapidly adopted too. It has been an academic need of this time. To present performance online platforms used by higher education institutions to continue teaching, learning, evaluation, examination and research while lockdown. These online platforms would definitely go to continue even after the pandemic get over. The outcome of this research study will show a structure to strategize and reconstruct new online platforms and improvements in related technology.

### **2.2. Clarification of problem:**

Because of the lockdown imposed due to Covid-19, all the educational institutions were closed because of virus threat. And yes it is all because, educational institution is place where huge mob gathers. So it is very dangerous to open educational institutions in such a fearful environment. Education institutions shutdown not just only affected students, their professors, and their families, but also has extensive economic and societal losses.

But it is also important to make sure that the process of teaching, learning, evaluation, examination and research needs to be continued. To avoid the educational loss caused by covid-19 lockdown, online platform is one of the best solutions. These online platforms can be accessed through laptop, Mobiles, Tablets, Smart TVs and many other electronic gadgets. Governments of various countries are encouraging educational institutes to use online platforms, so that they can recover from the losses caused by COVID-19.

This study focuses especially to study of various online platforms used for higher education with special reference to teaching-learning approaches adopted by higher education institutions during Corona pandemic lockdown period. This is a detail study of online platforms from professor as well as student point of view, which are used by Educational Institutions during Covid-19 pandemic lockdown period.

Teaching and learning trends has been changed; now and onwards digital platform will play very important role in all the teaching institutions. The purpose of this work is to find out the drivers as well as limitations faced by professors and students while using various online platforms. Because of this unplanned situation and we faced kind of confinement. A convenience sampling used to rapidly characterize those drivers and limitations. However, to be able to generate more representativeness, we targeted participants from rural area of different higher educational institutions in Maharashtra.

This study will not just do study about the online platforms but also it will examine what are the requirements/expectations of the professors and students about these online platforms. This study will check that, whether these online platforms fulfilled the expectations? After all Technology is a kind of delivery system, which is used to communicate knowledge or ideas to a large number of students who are located at urban or in far rural or remote areas. That is what is to be studied in this research.

### **2.3 Review of literature:**

There are so many international, national and regional research studies; research articles, surveys and research reports were published from last two year, regarding continuity of education in this pandemic situation. Many intellectuals, researchers, experts focused on this situation and discussed and expressed the need of more research to be done on the use of technology based online platforms for educational purpose.

As almost all of the studies were undertaken during the period of the pandemic outbreak, it appears that all studies focused on the need and quality of online learning for the education and as well as for future purpose. Many studies are done with the main goal that is to continue the education in any possible way. They conclude that online education would be useful in the future.

In over all the process of education that is the way of learning and teaching was affected drastically by moving their assignment to the new technological way. To get more effectiveness in online learning, many researchers, authors show that the success of these changes depends strongly on the development of information and communication technology. The knowledge needed for the adoption of digital technology during the pandemic period is also studied. The work is focusing on the gateway for digital learning in education during the COVID-19 period. Researchers and authors have shown that the adoption of digital learning would stimulate the growth of digital learning in the process of learning and teaching and could be a positive response to such a situation.

### **3. Methodology:**

This research study explores names, performances, issues, merits, influencing factors, impact, expectations and many aspects about online platforms used by higher education institutions in Maharashtra. This study will be helpful to higher education institution, professors and students to select better online platform. It will be useful for the improvement of

online platforms. This research work will present compatibility of online platforms. In this study, we focus our research on some important research questions.

Considering the demand and the nature of the study ‘**survey Study**’ method is used. Random Sampling technique is used for the study. Online platforms are collaborative tools where two parties are involved; we addressed the question from two different points of view: professors and students. The sample of present study comprises **students** and **professors** of higher education institutions from rural parts of Maharashtra. The main survey instruments are two **well-constructed questionnaire** for students and professors. For the data collection through a structured questionnaire is an effective way. These two anonymous questionnaires were created using Google forms, they have been tested, validated and reliability also tested and then through many communication channels these questionnaires sent to these two categories of participants. A small text explaining the purpose of the questionnaires was included into the message for the better understanding of participants. I also asked professors to relay the link regarding student’s questionnaire to their students. I targeted participants from different rural regions of Maharashtra, different universities, different disciplines, and different levels in higher education.

### 3.1. Participants and participation:

During this survey, large numbers of professors and students of higher education institutions from rural parts of Maharashtra participated in this research study. Large number of students and professors from different higher education cycles participated in this study using the online survey technique. Participation was good but due to many issues such as connectivity, technical, communication and delays there were disturbances in participations. I first asked the students about their experience with online platforms, many answer shown a limited previous experience among the students and professors too. But later they trained and continued. Table 1 displays the disciplines of participants.

Specialties	Percentage of participants (%)
Arts	14
Commerce	12
Science	17
Information Technology	26
Agriculture	8
Medical	6
engineering	6
Others	10

### 3.2. Platforms used and study materials used during this pandemic:

In the period of pandemic many institutions used many different kinds of online platforms. This research explores the study of online platforms used by higher education institutions in rural parts of the state of Maharashtra in India. Most of the institutions use popular online platforms which are helpful for the sharing of study materials and as well as for communication purpose. Below table shows the list of online platforms used by these higher educational institutions from rural parts of Maharashtra state of India.

Zoom	Google meet
Google classroom	YouTube
Jio meet	Hangout meet
WebEx	WhatsApp
Google apps	Facebook live
YouTube live	Swayam
ShodhGanga(digital repository platform)	Skype
Microsoft teams	Telegram, etc

And many other online platforms also used by students and professors. Therefore the question is asked to students as well as professors that are they satisfied with the use of these different online platforms for educational purpose? And the answer shows that more than half (52.43%) of participants are partially satisfied, and many are satisfied also. Participants also mentioned issues, merits, demerits, expectations about these online platforms.

Professors and students gave the reason behind the use of specially these online platforms because they are simple and easy, comfortable for respective use in the current situation. Many multimedia files accessed/shared through online platform for the purpose of education such as PDF, PPTS, e-books, notes, links, DOC, live demo videos, web tutorials, etc. Submitting resources (courses, practical work, tutorials, corrections, etc.), providing video conference courses, evaluating students (quizzes, homework, etc.), practical work tutorials, etc.), Quizzes, Group projects, Remote

presentations, Oral tests, etc. was efficiently exercised by professors as well as by students. Still everyone expressed limitations to conduct practical.

### **3.3. Devices used and connectivity issues of rural areas:**

Most of the professors and students from higher education institutions used smartphones, tablets and laptops. Few users used desktop computers and smart TV also. It is also observed that as per device use data pack and performance of online platforms were affected.

The professors and students were then asked to rate the quality of the Internet connection while using these online platforms during the pandemic period. The response shows that the quality of the Internet connection was average, however many participants mentioned that connectivity was below average and sometimes poor. Surprisingly many students do not even have Internet access specially talking about rural area, however later educators and students arranged devices as well as connections also.

### **3.4. Performance of online platforms and influencing factors:**

Yes no doubt that these online platforms helped to continue the education very efficiently. One of the important influencing factors that student as well as professors were not fully user friendly with these online platforms. So then took some time to learn and training also provided for the same. With the proper connectivity and data speed, these online platforms worked efficiently. However in the survey the responses of participants said that performance of these commonly used popular online platforms gets fluctuates because of some issues such as weak network signals, huge traffic load, etc. Due to these issues there were delays, stability issues, and technical operability, and quality degradation, interruptions, joining and rejoining issues, multiple host management issues and many more issues experienced by users. Providing recorded videos was the temporary solution for network issues.

There are some influencing factors which affected the performance of online platforms. Many participants experienced that performance of online platform affected due to two issues i.e. fluctuations in the speed of internet and which device you are using, etc. When we discuss about rural area most of the students are from low-income families and disadvantaged groups, people of this background are the most likely to suffer, because they may not afford high-speed internet connection and required technical gadgets too.

### **3.5. Practical, creative activities, interviews, seminars, webinars, external viva and presentations:**

Except few fields such as I.T. it was really difficult to conduct practical using online platforms. There were limitations for conduction of creative activities. Although many participants said that use of online platforms was partially supportive to conduct interview, seminars, webinars, presentations, external viva. However still it cannot gain results as face to face way of interaction.

### **3.6. Exams and evaluations:**

In this survey we asked the question about exam conduction using online platform, to know the feedback of the participants. The answer clearly shows that 64.4% of professors say that it is not feasible to set exams through online platform mode at institutional level as far as current situation concerned.

### **3.7. Merits:**

Many participants expressed that use of online platform is not only time saving but also it encourages more productive use of time, because while learning online there are no disturbing factors or there is no scope for out of point discussion. It is time bound way, so it helps to maintain to the point discussion. Souse of online platform helped to complete the syllabus quickly within time. Participants also said that indirectly online learning helped to complete the degree more quickly. This use of online platform based teaching learning process eliminated many barriers such as shyness, environmental disturbances, distractive elements, etc. Use of online platforms reduced hard work.

We got time and place independence by using online platform for educational purpose. Better utilization and management of time is possible due to use of online platforms. Short, crisp and quality lectures not just only attracts but bounds all types of students with online platform based learning. These online platforms provided greater access to national/international experts/specialists which helped to reach to rural/remote area time independently. The use of online platforms is cost effective. Recording sessions is very helpful for future use and reference too. Main advantage expressed by many that these online platforms plays an important role in emergency services. These online platforms are useful to women and physically handicapped students and professors a lot. This online platform based learning helps to share the cost less study material.

### **3.8. Demerits:**

Not all professors and students have the necessary knowledge, skills and resources to use online platforms efficiently. There were problems while joining, leaving, host management and rejoining too. Except few fields such as I.T. it was

really difficult to conduct practical using online platforms. While online learning as they may not afford high-speed internet connection and required technical gadgets too that is also another demerit. While using online platforms there was poor quality due to poor network.

Many participants agreed that loneliness, isolation anxiety, laziness, stress of eye & brain, and many other disadvantages of using online platform for longer time continuously. Many participants said that it is not feasible to set exams for students from a distance through online mode at institutional level. Not everything is possible using online platform, there are some limitations from academic, technical and practical point of view. Real time monitoring is hard, because it is difficult to catch the attention during online class.

### **3.9. Expectations about online platform which helps to select suitable online platform:**

From this survey method participants expressed many expectations about the performance of online platform to reduce demerits, such as efficient traffic load handling, online platform should be optimized for low bandwidth i.e. should work in low speed or weak network, platform independent, device independent, user friendly features, should provide cloud storage, easy availability, efficient host management, easy hassle free join, rejoin and leave process, technical disturbances should be removed, voice video communication quality. There should be the facility of saving sessions but also cloud storage for free of cost. There is demand of regional language support by all commonly and popularly used online platforms.

### **4. Conclusions:**

Because of the lockdown imposed due to Covid-19, all the educational institutions were closed and not allowed to open because of virus threat. But it is also important to make sure that the process of teaching, learning, evaluation, examination and research needs to be continued. To avoid the educational loss caused by covid-19 lockdown, online platform is one of the best solutions. Online platform based learning means education that uses Internet technology. It has changed the concept of traditional education within the last few years. Use of online platform creates education flexibility without being limited by distance, space, and time. In online platform based learning, the latest technology needs to be used to enhance the learning process and interactions between professors, students, and technicians.

There are many important outcomes of our study. In our finding and from participant's point of view online platform based learning is not just only continued education and protected us from virus but also reduced cost without reducing the quality of learning. Online platforms are technology based and technology is kind of delivery system, which is used to communicate knowledge or ideas to a large number of students who are located at urban or in far rural areas. These technology based online platforms are used to connect professors with the students, allow professors to share the study material (.PPT, .PDF, notes, links, and videos) and allow students to ask queries too. In the days of pandemic these online platforms play an important role of communication, connectivity and made interaction successful. Most of the participants who take part in this study said that the performance of these online platforms was very effective in the period of pandemic. Participant expected more additions and features which we have noted. However there is a need of fluent network data speed and need to develop such kind of infrastructure.

There must be a funding agencies or government/institutional policy to provide and promote affordable or free internet and digital gadgets for the encouragement this online platform based learning. Encouraging towards is an important task, because digital learning, virtual schools is the future. Costless and countless study material is an important benefit of online platform based learning.

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3. The famous book named Teaching in a digital age (guidelines for designing teaching and learning) (2015) by Anthony William (Tony) Bates puts emphasis on the point that how teaching gets digitized in this new era.
4. Dr. Rini Saxena, (2020), "Role of Information Technology in Education during Covid-19 Pandemic" International Journal of Advanced Science and Technology Vol. 29, No. 8s, pp.4071-4078 mentioned that, most of the governments of various countries have shut down the educational institutes to avoid the infection of COVID-19. All the schools and colleges were closed. Then online platforms played an important role to resume education delivery across the world. Initially these sudden changes might have faced inconvenience, but yes of course it has given a new direction to education. Online platforms became the hope for education. During this shutdown/lockdown, online platforms are used by most of the schools, colleges, universities all over the world.

5. Dr. Prakash Bhairu Bilawar, (June 2020), Lockdown Period and Information Sources. Published in International Journal of Engineering Research and Management (IJERM) ISSN: 2349- 2058, Volume-07, Issue-06, focused on loss happened Due to wide spread of Corona-COVID-19 virus in the World, which resulted into enormous human deaths, GDP at the lowest rate and disturbances in human life cycle. This paper showcases the briefing about Corona- Covid-19 virus, lockdown period and the compilation of online/live academic/learning programs/activities rendered by different universities, colleges and associations/institutions during the lockdown period which served as information sources, to engage students and professors/faculties in their teaching, learning and extension processes in India with more emphasis on Library & Information Science online events.
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7. Dr. Pravat Kumar Jena, Assistant Regional Director, IGNOU Regional Centre, Bhubaneswar, Odisha, India. (18-06-2020) in International Journal of Advanced Education and Research which put stress on how technologies/online platforms emerged as new approach higher education.
8. Dr. Pravat Kumar Jena, Assistant Regional Director, IGNOU Regional Centre, Bhubaneswar, Odisha, India. (may 2020) in International Journal of Multidisciplinary Educational Research focuses on measures taken by Government of India to support online learning process during the lockdown period for Covid-19. This study also enlightens various online platforms adopted by educational institutions during the pandemic Covid-19