

## **COVID-19 and Introduction of Online Mode of Teaching in Degree Level Education: A Study of Rural Areas in Assam**

<sup>1</sup>Dr. Anjan Kumar Rabha

<sup>2</sup>Mrs. JunuRahang

<sup>3</sup>Mr. Sipankar Das

### **ABSTRACT:**

*Education in a traditional form involves classroom teaching by the teachers to their students and with the global developments in digital and information technology, the role of online mode of teaching in education has become more significant. The recent Covid19 pandemic compelled the education community for online mode of teaching-learning using various digital platforms such as Google meet, Zoom, Webex, Microsoft teams, etc. The government of India has given emphasis on online mode of teaching, online enrollment and in addition had introduced several online courses with the help of various digital media. Online mode of learning being a part of distance education involves technology applications and learning processes through computer-based learning, web-based learning, virtual classrooms and digital collaborations. The online mode of teaching has become an important and popular way of teaching learning, globally. To maximize the teaching learning process during the pandemic situation, there was an ardent need to make classes lucid and accessible among the student community and so higher educational institutions around the world have undergone transition from face-to-face classes to online mode on various online digital platforms. The online teaching learning offers newer and improved avenues for students to adapt to the gradually changing situations. Recently, although many educational institutions have implemented the online mode of teaching which is comparatively expensive than its traditional counterpart, it has several merits as well as demerits.*

---

<sup>1</sup>Asstt. Prof. Deptt of Education, Dimoria College, Assam.

<sup>2</sup>Asstt. Prof. Deptt of Political Science, Dimoria College, Assam.

<sup>3</sup>M.Phil Scholar, Kumar Bhaskar Varma Sanskrit And ancient Studies University, Nalbari, Assam.

*Advantages of online teaching includes easy access for students, flexibility in teaching-learning mode, better interaction, a collaborative approach, improved digital literacy rate, broader national and global exposure of the students, to generate technically sound students and development of professional online teaching institutions. The demerits includes issues related to medium of instruction, reduced eagerness of students to participate in the teaching-learning process, poor network connectivity, unfamiliarity with digital forum, affordability, the poor role of parents, non-conduct of practical classes and the affect of natural calamities. The lockdown period severely affected the students of the rural areas than the urban areas of the country. This paper studies the effectiveness and prospects of online teaching learning in rural areas of three districts of Assam, viz., Kamrup, Chirang and Bongaigaon and also discusses some steps to tackle the obstacles and demerits and ways to improve this online process.*

**Keywords:** Covid19, pandemic, online, teaching-learning, digital, technology.

### **1. Introduction:**

The teaching process in higher education levels across various states in India had seen many improvements and developments since the last past decades in a continuous and gradual manner. Recently, in November 2019 the Covid19 virus assumed to be originated in China created havoc globally that led the World Health Organization (WHO) to declare it as a pandemic. In 2020, due to the daily increased infection rate of the people affected by Covid19, the Government of India had announced Lockdown in various phases for the last six months, with the total shut down of the educational institutions, though relaxation in certain other aspects were implemented. While, during the first half of 2021, due to the second weave of covid-19 in India, the educational institutions were compelled to shut down in majority of the states. This pandemic has affected the socio-economic condition of the country along with the normal life of the people and has also adversely affected the educational system. The normal classroom teaching has seriously suffered due to this pandemic. As a modification and adjustment to these adverse situations and for the education system to continue, the mode of teaching learning process has been shifted to online mode of teaching. The Ministry of Human Resource Development (MHRD), India has given special attention on online mode of teaching and learning, online enrollment and in addition had introduced several online courses with the help of various digital media. Due to Covid-19 pandemic, classroom teaching was taken over by online mode of teaching through digital platforms such as Google meet, Zoom, Webex, Microsoft teams, Google

## COVID-19 and Introduction of Online Mode of Teaching in Degree Level Education: A Study of Rural Areas in Assam

classroom ,Whatsapp, Skype, etcand these platforms gradually got due prominence and popularity in the teaching-learning process.

Education process is a composition of two terms ‘teaching’ and ‘learning’. Teaching learning is a two way communication process and the goals of education cannot be achieved without teaching and learning. Here the term ‘teaching’ implies teacher teaches any content by using various methods and the term ‘learning’ implies when students learn about content by giving attention in the class. It is the interaction between the teachers and students in the classroom. In the ancient time, while the Gurukula system was running, the learning process has been assumed to take place in a classroom or face-to-face environment with the instructor and students together in a room or a common place (BASsou EL MANSOUR). The teacher (Guru) sits in the middle and lecture method has been used for teaching the students (sishya) and now in modern days the education has been provided in the classroom by using audio-visual aids like blackboard, projector, demonstration, group discussion etc.

Online teaching has become an important and popular way of teaching learning in higher education throughout the world. The need to maintain a competitive edge and to continue teaching learning process in work during the pandemic situation there was a need to make classes more easy and accessible among the student community. Hence, a large number of colleges and universities around the world have undergone transition from traditional face-to-face classes to online classes on various digital platforms, fully web-facilitated courses, blended and online. The online teaching learning offers new, exciting opportunities to expand the learning environment for diverse categories of student populations (J.Keengwe, T.T.Kidd, 2010).

Online learning is used to refer to Internet-based learning, web-based training, web-based instruction, virtual and distributed learning, cyber or net-based learning (Urdan&Weggen, 2000). Online learning is a subset of distance education and embraces a wide set of technology applications and learning processes including, computer-based learning, web-based learning, virtual classrooms, and digital collaborations (Urdan&Weggen, 2000). Additionally, it takes the form of complete courses with access to content for “just-in-time” learning, access (Hall, 2000). This definition encompasses delivery of course content via all electronic media, including the Internet, extranets, satellite broadcasts, intranets, audio/video tapes, interactive TVs, and CD-ROMs (J.Keengwe, T.T.Kidd, 2010).

Presently, although many educational institutions have adopted online mode of teaching, it has several advantages but it is comparatively expensive than its traditional counterpart (Carnevale, 2006).

Since the majority of students enroll in online courses based on the convenience and flexibility of scheduling (Ryan 2001), and not on their learning styles, the students need to have the appropriate learning styles and technical competencies to get used-to to such advanced forms of learning systems across various digital platforms. Therefore, to ensure effectiveness of the delivery strategies, there is a need to determine what works best in each learning environment. (Bassou EL Mansour).

The lockdown period severely affected the students of the rural areas than the urban areas of the country. The people of urban areas can enjoy the modern technological developments than the rural people. Therefore, in this paper, an attempt has been made to study the effectiveness of online teaching learning in rural areas of the country especially in the state of Assam. An online survey has been done through a questionnaire among the students of rural areas of Kamrup, Chirang and Bongaiongaon district of Assam, India.

## **2. Research questions/ Objectives of the study:**

1. To study the advantages of online teaching during COVID-19 pandemic in higher education in rural areas.
2. To study the problems related to the online teaching during COVID-19 pandemic in higher education.
3. To study the possible measures for solving the problems of the students related to the online teaching in higher education.

## **3. Review of related literature:**

The following Review has been done for this study-

**Bao, W., 2020, carried out a study on “Covid19 and online teaching in higher education: A case study of Peking University”.** His study reveals a) high relevance between online instructional design and student learning, b) effective delivery on online instructional information, c) adequate support provided by faculty and teaching assistants to students, d) high quality participation to improve the impact of student’s learning and e) contingency plan to deal with unexpected incidents of online education platforms.

**Ghilay, Y, 2017, made a study about “online learning in higher education”.** His study focuses on unraveling the complexities of information and communications technology and explaining

# COVID-19 and Introduction of Online Mode of Teaching in Degree Level Education: A Study of Rural Areas in Assam

the integration of technology into educational activity to faculty and provided importance on technology based learning (TBL).

Estelami, H., 2016, carried out an “exploratory study of the effects of online course efficiency perception on student evaluation of teaching (SET) measures.” The study reveals the efficiency of online education and its effects into the learning process.

## 4. Methodology:

The present study has been carried out by both descriptive and analytical methods. Here for the purpose of data collection, the researchers selected online survey method. This online survey method was conducted with the help of a questionnaire through digital instruments and tools.

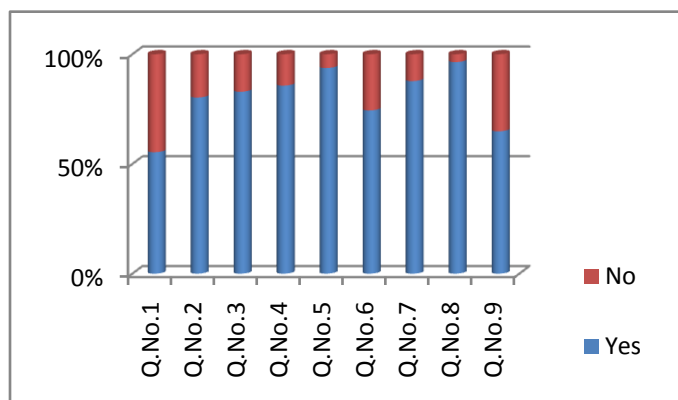
**4.1 Sample of the study:** In this study, the researchers used snowball sampling method which comes under the non-probability sampling technique. The researchers found a total number of 157 graduate students with the help of digital tool and they were taken as sample of the study.

### 4.2 Delimitation of the Study:

1. The study was confined to three districts of Assam, viz- Kamrup rural, Chirang and Bongaigaon.
2. The study was delimited to undergraduate education level only.

## 5. Analysis and Interpretation of data:

The study has made following analysis and interpretation-



**Diagram No.1**

### **Interpretation:**

The research data revealed that 45.86% teachers had conducted daily online class, while 36.94% teachers did not conduct daily online class.

The data obtained displayed that 67.52% students felt that online classes are very helpful for them and 16.56% students felt that online classes are not so much helpful for them.

The diagram revealed that 61.78% teachers had cleared all the doubts of the students during online classes and 12.74% teachers did not clear all the doubt during the online classes. It revealed that 71.97% students had interacted with their teachers during the pandemic outbreak period and 17.20% students did not interact with their teachers during this pandemic outbreak.

The survey displayed that 64.96% teachers had given immediate feedback regarding the queries of the students, whereas 10.83% teachers did not give immediate feedback regarding the queries among the students. The survey showed that 85.99% students had personal smart phone, whereas 5.73% students did not have personal smart phone. It also revealed that 59.24% students had supported online classes and 20.38% students did not support online classes.

Regarding the suggestions of the teachers during the pandemic outbreak it showed that 73.25% students obeyed all the suggestions given by the teachers during the pandemic outbreak and 10.19% students did not obey all the suggestions given by teachers during the pandemic outbreak. In terms of importance of self study during the pandemic outbreak it was revealed that 85.99% students gave a positive nod whereas 3.18% students did not agree on self study. The survey also revealed that 54.14% students had good network facility in their locality, 29.30% students had poor network connectivity.

## **6. Discussion of the study:**

From the above study, the researcher found both positive and negative responses from the students on online teaching and learning.

### **Advantages of online teaching:**

**1. Easy Access:** It is the first step to online teaching and learning (Salman, 2002). In the pandemic situation since offline classes are impossible, the students wherever located can get access to the course and learning materials via online tools. The teacher can send and the students can submit their assignments and assessment paper through online. The students are gradually getting more awareness about online access of resources. They could easily download teaching materials, previous solved paper and other references. The students can opt for best classes available in the web. In an online

## COVID-19 and Introduction of Online Mode of Teaching in Degree Level Education: A Study of Rural Areas in Assam

survey which was done digitally over the students of rural areas of Kamrup, Bongaigaon and Chirang district of Assam, revealed that 67.52% students felt that online classes are very helpful for them and 16.56% students gave their response that online classes are not helpful for them. The study also revealed that 61.78% students expressed that teacher used to clear all their doubts during online classes.

**2. Flexible:** Online teaching and learning is very flexible than paper based interaction. There may not be any time schedule for the class. Students may take the class according to their convenience. With the use of the Internet, interaction with students can now achieve with a very cheap set-up (Chen, 2003). Nowadays, in order to create a group of learning community or to interact, they need not have to do much hurdle or to fix time frame and schedule. Even online teaching removed physical and mental labor. One can remove their errors by editing, copying and pasting in the same file. Transfer of material, sharing information is as easy as clicking one button. The teacher even gets more time to prepare quality lectures for teaching.

**3. Interactive:** The online mode of teaching provides an interactive environment to the learners and it suits both categories of students, introverts and extroverts. In online teaching learning process, every student gets equal attention since every student can get access to the online class. All the doubts and queries can be solved by the teachers. Educators and learners are getting opportunities to interact with peers from around the world. Learners adapted to an international community (15). Regarding this aspect of interaction, 71.97% of the students expressed that they have been interacting with their teachers during the pandemic outbreak period.

**4. Encouragement for Collaboration:** Where there is social distancing policy, online teaching encourages for collaborative activity from student's part. The teachers from different institutions across the globe through a collaborative approach can teach students of any remote area of any country. The students can work on a common assignment or projects from their own home. Since screen sharing, document sharing is becoming very fast and easy, the students can prepare or finish their projects easily in stipulated time. To get benefitted from each other, the teachers across the world preferred collaborative work (Misra, 2020).

**7. Improved Digital Literacy rate:** The study revealed 85.99% students felt that self study is important for them during this pandemic outbreak. However, 3.18% students do not feel that self study is important for them during this pandemic outbreak. In online mode of teaching, both teachers and

students are moving towards the use of digital technology. People ranging from young to adults became familiar with the recent trends and development in digital literacy. Teaching materials are shared among the students easily and the related queries are resolved through e-mail, SMS, phone calls and using different digital platforms such as like Whatsapp, Google classrooms, etc (15).

**8. Broader national and global exposure of the students:** The online mode of teaching learning process has the merit for a broader exposure of the students to the global world through the internet. The various available digital platforms enable the teaching learning process involving faculty members from both the national and international level which subsequently will enhance the teaching skills and broaden their knowledge which otherwise remains restricted to the institute and regional level only. The students can also widen their knowledge base by surfing from the internet to clear their doubts and queries. Thus, a student based in a remote location from the teaching source, can get access to those teaching learning process through a good internet connectivity.

**9. Technical enrichment of students:** Presently, in this modern global world, digital technology has seen rapid advancements and to cope up with such developments, it is a requisite for today's youth to acquire those knowledge and get used-to with such digital technology. The present scenario of online mode of teaching learning process has compelled the student community to have a better consciousness and eagerness to learn these processes, which are also a need for day-to-day transactions nowadays. This gradual process of acquiring the digital technology knowledge will subsequently open up better avenues for the student in future when applying for jobs and other entrepreneurial activities.

**10. Development of professional online teaching institutions:** With the rapid increase in the number of candidates in the national and state-level competitive exams, various coaching institutions catering to the needs of the students have already come up. The Covid19 however, compelled the classroom classes to go online and presently with a diversity of such online coaching institutions, students from any remote place can get access to the teaching-learning process and have a direct interaction with the teachers employing the various online digital platforms.

#### **Disadvantages:**

**1. Language / medium of instruction:** As we can see that the English language has a good monopoly over the internet, it has created a problem to the students of many rural areas not comfortable with the language. Though due to recent developments in multi-lingual technology, it is possible to access the



## COVID-19 and Introduction of Online Mode of Teaching in Degree Level Education: A Study of Rural Areas in Assam

internet using one's native language (R. Liang, 2012) however, it failed to cover the larger extent of information. In rural areas of Assam, where most of the institutions are run by government or under government undertaking, the regional language gets the first preference as a mode of teaching. Since, the medium of instruction is in English, many students feel uncomfortable to search knowledge and information through online mode. Hence, those who have a command over that language would take the benefits of online learning. Those, whose medium is in regional languages will not be benefitted properly, as the course material in regional languages are not sufficient enough to meet the learning process significantly.

**2. Reduced eagerness of students to participate in the teaching-learning process:** The online mode of teaching-learning is a recently developed process compelled by Covid-19 recently, though previously, the process was in operation in a scanty manner. The pandemic led the education system for a rapid change in the teaching process away from the normal classroom to online mode. A very common problem arises as to the attendance of the students in the online teaching process, which is merely due to the low sense of eagerness and concentration among the student community to participate in the learning process.

**3. Network connectivity:** Good and strong internet connectivity is a crucial factor for a fruitful teaching and learning process in online mode. India being a gradually developing country still needs much socio-economic developments in the rural sector so as to provide better electricity and internet connectivity. The rural areas have very poor network connectivity in comparison to the urban part of Assam. The network interruption, time to time breaking of connectivity often discourages both the teacher and students. Study revealed that 29.30% students do not have good network facility in their locality. For that reason teacher fails to deliver the knowledge to the students as well as the students fails to gain the same.

**4. Unfamiliarity with digital forum:** Before Covid19 outbreak, most of the teachers and students in those rural areas were not familiar with all the modes of online teaching and learning. Therefore, many of them felt uncomfortable with the system. The teachers conducted their lectures on video platforms such as Zoom, Google meet etc. but that does not signify the real online teaching and learning (15). It lacks proper interaction between teacher and students and many times the student's fail to give their concentration.

**5. Affordability:** The students of rural areas, where the economy is low, development is in slow process cannot afford online education properly. The study revealed that 85.99% of the students used android mobile phones as a means of taking online classes, while 5.73% students did not have android phone. The students from poor economic background cannot afford hi-speed data plan and large data internet connectivity to get online classes. As a result some students were left out of online teaching and learning process in rural areas of Assam. In addition, in poor families having more children's, affordability becomes a great issue as all their wards might not get the adequate online education due to scarcity of requisite phones and internet connectivity.

**6. Dissatisfactory role of parents:** Since the literacy rate is low in the rural areas, the parent's role in guiding their children is not always satisfying. The educated parents are able to guide their children but most of the parents do not have that level of education to teach their children in the house or to guide them. Therefore, many students are found misguided and found to mislead their parents too. In addition, some students, in the name of online class spend more time in social media and games.

**7. Non-conduct of Practical classes:** The online mode of teaching and learning cannot fully meet the criteria for the usual laboratory practical classes for students. Though there are various web sources for online practical classes for the student community, those online sources cannot fully cater to the practical class's requisites and processes as there arises questions regarding their higher internet data usage and affordability.

**8. Natural calamities:** Apart from the pandemic situation, the people of rural areas have undergone the seasonal natural calamities like heavy rain, flood and storm. As a result, many people had to leave their homes and have to shift in other places for shelter. Heavy rain and storm affects both the electricity and internet connectivity for many days. The students of that area are severely affected and therefore, face a huge loss in academic field.

**Suggestions:** following suggestions has been made for the upliftment of the online mode of teaching for degree level education-

1. The government should improve the infrastructure facilities of the educational institutions. Modern tools and technology should be introduced at all level. The authority of the institution should be directed to facilitate the basic requirements of conducting online education.
2. The government should take the possible initiatives in making online education accessible to every student irrespective of rural or urban areas. Through improved internet connectivity at affordable

## COVID-19 and Introduction of Online Mode of Teaching in Degree Level Education: A Study of Rural Areas in Assam

price, the students can have easy access to online teaching. The online radio class, class in televisions also should be organized regularly to cater to the needs to the students of remote areas.

3. Since all the teachers are not familiar with the online mode of teaching, the training program should be organized on recent tools and methods of virtual teaching and learning. Likewise, the students should be given proper training and counseling to make them attracted and comfortable towards online learning. The teacher should be in touch with the students and motivate them. Online motivational speeches of eminent educationist's, personalities, alumni's, etc will greatly help in inculcating the interests among the student community for online mode of learning.
4. To remove any kind of difficulties in virtual education, a region-wise technical expert should be appointed to tackle all kind of technical problems.
5. The teacher should encourage the students for self study. By providing various teaching materials to the students and by introducing them about various digital platforms like SWAYAM, E-PATHSHALA, UNACADEMY, SWAYAMPURABHA, INFLIBNET, etc the teacher can create a habit of self study among the students.
6. The educational institutions can launch mobile applications where the students could search their course related lectures both in audio and videos. In that app, the lectures of prominent subject experts, and professionals should be made available to the student community.

### 7. Conclusion:

In India, Higher Education plays a significant role in the molding of the personality of the individual. During the period of Covid19 outbreak, online mode of teaching and learning has play a vital role to continue the education process in the country. India is geographically a diverse country where majority of the students live in rural areas. So, in terms of the online classes and its implementation all over the country, there are certain shortcomings and anomalies. The study reveals many problems such as, some students are not aware about online classes, lack of smart phone, lack of eagerness for online learning, poor internet connectivity etc. In spite of these problems, the study revealed that students are highly benefitted through online classes. They get chance to continue their learning process through online classes as well as develop close interaction with their teachers which is also essential for the teaching and learning process. Thus it can be concluded that during the Covid19 pandemic, online mode of teaching have become a motivational instrument for the students in the learning process. The

Government of India and its several educational agencies have adopted different digital technologies to meet the needs of the digital mode of learning. Since, India has numerous students from marginal economic backgrounds and remote areas who cannot afford the online mode of education; the government has to put their sincere efforts to resolve this issue. The Covid19 pandemic compelled the education system to change from classroom teaching into online teaching and the process should go on after the pandemic following a proper regulation through proper training of the teachers as well as the student community. The government as well as the teachers should take some positive steps in a constructive and dedicated manner to fulfill the goal of online mode of teaching for the purpose of continuous learning process among the student community, who are the future builders of the nation.

### **References:**

2. Al-adwan, A., & Smedley, J. (2012). Implementing e-learning in the Jordanian higher education system: Factors affecting impact, *International Journal of Education and Development Using Information and Communication Technology*, 8, 125-135.
3. Bao, W., 2020, Covid19 and online teaching in higher education: A case study of Peking University, *Wiley online library, Human Behaviour and Emerging Technology*, Vol-2, Issue-2, April 7<sup>th</sup>, 2020.
4. Brown, J., & Duguid, P. (2000). *The social life of information*. Boston: Harvard University Press.
5. Cavanaugh, C., Barbour, M., & Clark, T. (2009). Research and practice in K-12 online learning: A review of open access literature. *The International Review of Research in Open and Distance Learning*, 10.
6. Cercone, K. (2008). Characteristics of adult learners with implications for online learning design. *AACE Journal*, 16, 137-159.
7. Chen, D. (2003). Uncovering the provisions behind flexible learning. *Educational Technology & Society*, 6, 25-30.
8. Estelami, H., 2016, An exploratory study of the effects of online course efficiency perception on student evaluation of teaching (SET) measures, *American Journal of Business Education-Second Quarter 2016*, Vol-9, Number-2, online.
9. Ghilay, Y, 2017, *Online learning in higher education*, Edition-1, Nova Science Publishers, New York, January 2017.

COVID-19 and Introduction of Online Mode of Teaching in Degree Level Education: A Study of Rural Areas in Assam

10. Hongsiang, Xu, & Omamerhi, E., 2007, Effectiveness of online learning program: A case study of a Higher education institution, *Scholarship and Professional Work Business*, Vol-VIII, No-1, online
11. Jena, Pravat. (2020). Impact of Pandemic Covid-19 on Education in India. *International Journal of Current Research*. 12. 12582-12586.
12. 10.24941/ijcr.39209.07.2020.
13. Sun, A., & Chen, X., 2016, online education and its effective practice: *A Research Review*, *Journal of Information Technology Education Research*, Vol-15, online.