



USE OF ICT FOR BETTER MATHEMATICS TEACHING DURING COVID-19 PANDEMIC: IT'S ADVANTAGES AND DISADVANTAGES

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Abstract:

COVID-19 Pandemic broke out all of a sudden in a place named Wuhan of China. The corona virus was spread all over the planet earth within a very short time. Consequently, the physical movement of people was restrained. People lose their jobs. Millions of livelihood was at risk. The daily bread earners could not come out their homes. They were thrashed and thrown into their homes. The wild life started to reclaim their lands and forest as the movement of the people was withdrawn from the public space. On the other hand, the pandemic came up with new avenues. It gave lesson how to sojourn with the corona virus continuing the pursuit of knowledge. It introduced new tools in ICT sector so that classes were conducted. Teachers took their class from home manipulating the different tools. Moreover, Black Board and Chalk were replaced by Google Meet. The Mathematics teachers who never thought of taking class without the use of chalk and Black Board were taking Mathematics class in Google Meet and in other sites. They employed new ICT based tools. Thus the old mode of teaching and learning format was changed. Mathematics teachers too adapt the new mode of online teaching. And thus the physical mode of teaching-learning format was shifted to distance teaching. The paper tries to recollect the ICT based tools which were applied in taking classes during lockdown. The paper revisits and discusses about the application of ICT tools which were applied in conducting Mathematics classes when work from home was necessary. The objective of the paper is to discuss about the different ICT tools which helped to conduct online class during corona pandemic. Precisely, the pandemic came up with crisis along with new solution in regard of disseminating knowledge. The aim of the paper is to discuss advantage and disadvantage of online teaching in the light of mathematics subject.

Keywords: Corona Pandemic, Online Mode Class, Mathematics, Advantage and Disadvantages

Introduction:

The psyche of human mind always considered Mathematics as a difficult subject. If tough subject is being taught online mode, it appears quite challenging. It's a believe that online courses are usually less successful than traditional teaching. But the teaching world was abruptly taken a shift from class room teaching to online teaching during COVID-19 Pandemic. Mathematics courses were also offered through online education during lockdown. Teachers sheltered upon ICT tools. They used different tools of Unified Communication to impart knowledge of their subject. The mathematics teachers took various tools to teach their students. The tools were voice mail, email, opening whatsapp group among students, video conferencing, google meet etc. But it appeared that online mode teaching has both advantages and disadvantages too. Classes were put on normal course. Students started coming to attend classes soon after celebrating New Year's Eve 2020. Teachers resumed their duties. But on 19th March, 2020 the Department of Health and

Family Welfare of Assam issued an order for closure of all museums, libraries, coaching centers for spreading of COVID -19 in the state. The order further restricted the movement of individuals, in order to contain the spread of the disease and the state government enforced later on a state wide lockdown from March 24 to March 31, 2020. The lockdown involved- sealing the state borders, suspension of public transport services, closure of all commercial establishment, offices and factories and banning the congregation of more than five people at any public place. Principals of the colleges were instructed to vacate college hostels so that students could stay home assuming home was the safest place. Thus, physical contacts amongst teachers and students were being interrupted. Colleges located in remote areas faced problem in conducting online classes due to poor network connectivity. Even students coming from remote areas had their own limitations. Besides, teachers opened whatsapp group amongst students to establish contact with students of their subject. Students were asked to join in the whatsapp group so that further course of action be intimated to them soon. It came to notice that students having humble background had not mobile of their own. A few students shared their parent's numbers. Yet opening whatsapp group among students was quite helpful.

Mathematics classes were started on online mode during lockdown period. The whatsapp group was quite helpful for circulating class routine and any other assignment topic. Classes held in the morning time in Google Classroom. Teachers opted Google Classroom to teach Mathematics because it is easy to attach files and solved algebraic equation remained in the computer with the help of Google Drive. Even students responded the teachers call. They did their home task on paper and took the picture of their works and submitted them to Google Classroom. Teachers gave websites link of the lesson in Google Classroom so that students could easily access with a simple click on the given link. Another advantage of online classes is that there has an option to record the entire class and saving it anywhere. The recording will help the students a lot while exercising. Offline classes do not have this facility. As a result, the students have to take notes of everything. In case the students get stuck while exercising, they do not have any option other than taking the notes. Again just like the option of recording the classes, the students get a number of PDFs as class notes. The PDFs of a particular chapter are automatically allocated to the students while that lesson is taught. The PDFs help students lot as they can find explanations of each chapter systematically. Whenever a student needs a revision of a chapter he/she can have a look at the PDFs or play the recording. Mathematics is a subject that needs seamless practice. Without practice, it will get more difficult for the students to secure good score. Online math classes include different practice paper. As a result, the students can identify the question pattern and difficulty level of the examination. It is true that teachers had faced a lot of troubles to establish contact with students for holding online class. Online teaching was very new to the teachers and students of remote areas. It was difficult on teachers' part to hold student's attention throughout. But Google Classroom appeared perfect as a tool to transform a traditional class into a blended model ICT based class.

Using technology in the online or offline classroom is undoubtedly innovative. As long as one has computer or mobile and internet connectivity, it does not matter in which part of the world one is. Learners can access information and attend class from anywhere. But online classes on Mathematics during lockdown appeared a bit inconvenient. Students were located in remote areas. They left to their homes in lock down. Students were not only located in remotest places where internet connectivity was poor, but also, they were multilingual. And online mode of teaching is a solo act. Teachers opted English language primarily so that they can be understood by all. It was not possible to read the minds of the students through Google Classroom teaching. Thus a few students who were shy in nature remained unmarked. Slow learners were found shy to take part on online discussion and participation. They were in need of personal contact with their educators in order to learn successfully. Students having humble background did not have sufficient space, desk having appropriate height and appropriate light in their places. It was observed that constant online classes caused annoyance in students' behavior. They caused poor vision, strain, injuries and other physical problems. Since online classes need a working internet connection throughout. The students may develop an addiction to internet and junk content over the internet. These may distract the students a little bit from their studies. The students need self-control to use the internet only as per their needs. It will help the students to avail the internet only for study purpose, not for anything else.

Undoubtedly, online teaching during lockdown was the only way to share knowledge, yet it's true that students and teachers of underdeveloped colleges are fond of traditional way of teaching learning format. During Online classes, it was found difficult to trace students' progress. They often found undisciplined. It was observed that they preferred that their progress of learning to be closely monitored in order to perform. But it was quite impossible in online teaching to take note their progress individually. Besides, online teaching learning has its own set of positives. Institutes located in remote areas should have taken creating strategies for more efficient deliberation. The COVID-19 Pandemic introduced a new term i.e. New Normal. The New Normal in education is the increased use of online learning tools. The COVID-19 Pandemic has triggered new

ways of learning. In the year 2020-2021, the demand for online learning has risen significantly. Online Learning offers teachers an efficient way to deliver. Using videos, PDFs, Podcasts, Google Meet etc. as tool, a teacher can reach anyone. The Online classes help students for future references. It allows students to access learning materials at any time of their comfort. Online classes not only are paperless learning, but also more affordable.

Conclusion:

To sum up, we may say that online classes do have a number of benefits. Yet it is not something perfect. But one cannot ignore the call of the hour. When the whole world is emerging towards ICT, classrooms cannot stay back. Classrooms have to evolve. Teachers have to be more dynamic in applying ICT based tools in imparting knowledge to students. Taking care of the notion that nothing can replace human contacts; teachers have to be instrumental in creating positive vibes among students about ICT and its applications.

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