

The Teaching-Learning Process during the Lockdown Period caused by COVID-19 at Private Secondary Teacher Education Institutions in West Bengal

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Abstract- In response to the countrywide closure of educational institutions due to COVID-19, different educational institutions have started using digital-based open educational applications and platforms to reach learners remotely and limit the disruption of education during lockdown phases. Teacher Education Institutions have also taken initiatives for serving the educational needs of the trainee-teachers. The present study aims to analyze locale wise online teaching-learning process during the lockdown period in private secondary teacher education institutions in West Bengal, India. It also aims to find out virtual platforms, online methodologies, digital teaching-learning materials, and the like which were used in virtual teaching-learning process as well as the role of management bodies and the participation of student-teachers in the alternative mode of education. The survey method along with telephonic interview has been followed. The sample size is 30 people who are the teacher-educators of different private B.Ed. colleges recognized by NCTE and affiliated to WBUTTEPA under the districts of North 24 Parganas, South 24 Parganas, Kolkata, and Howrah at the State of West Bengal in India. A self-made standardized questionnaire schedule was used by the investigators for the collection of data. The results show that the teacher-educators used WhatsApp, Zoom, Google Classroom, Google Duo, Google Meet, Skype, and even teleconferencing over the phone as teaching-learning platforms; lecture methods, question-answer techniques, discussion methods, and demonstration methods of teaching were employed on virtual platforms; book images, PowerPoint presentation, self-made short videos were used as learning materials and even they took classes without any TLM. The results infer that urban B.Ed. colleges performed better than the rural B.Ed. colleges in terms of providing online teaching-learning and the B.Ed. colleges under the control of strong management performed better than the B.Ed. colleges under weak management bodies in terms of online teaching-learning practice during the lockdown period caused by COVID-19.

Key Words: COVID-19, Learning, Lockdown, Private, Teaching, Teacher Education Institutions.

I. INTRODUCTION

COVID-19 is a disease which is caused by a virus called SARS COV-2. 'COVID-19' is an acronym where 'CO' stands for Corona, 'VI' denotes Virus, 'D' stands for Disease, and '19' stands for 2019. On the other hand, SARS refers to Severe Acute Respiratory Syndrome. SARS COV-2 is genetically similar to the SARS Coronavirus which was responsible for the SARS outbreak in 2002. Simply, the name of the disease is Coronavirus (COVID-19) and the virus responsible for the disease is Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). Formerly, the disease was referred to as '2019-nCoV' i.e. '2019 novel coronavirus' but further World Health Organization (WHO) announced 'COVID-19' as the name of this newly arrived disease on 11th February 2020. This is a highly infectious disease that is spread between people during close contact, most often via small droplets produced by coughing, sneezing, and talking. The droplets fall to the ground or on surface and people may become infected by touching any contaminated surface followed by touching their face. There is a period of time between the moment an individual is first infected and the time he or she takes to develop symptoms. This is called the incubation period. The typical incubation period for COVID-19 is five or six days but it can range from one to fourteen days. There are approximately ten percent of cases taking longer incubation periods. Fever is the most common syndrome along with cough, shortness of breath and in more severe cases it causes pneumonia or breathing difficulties. Other common symptoms include loss of appetite, fatigue, sputum production, muscle & joint pains and some systems like nausea, vomiting and diarrhea are observed in varying percentages. There are less common syndromes like sneezing, runny nose, sore throat, and skin lesions. It can be fatal in few cases.

The first case of COVID-19 was identified in December 2019 in Wuhan, China. It has been found that more than 7.41 million cases have been reported across 188 countries and territories and more than 4, 17,000 deaths occurred and more than 3.48 million people have recovered as of 11th June 2020 (Source: COVID-19 Dashboard by the Centre for System Science and Engineering, John Hopkins University). The outbreak of COVID-19 was declared as a Public Health Emergency of International Concern (PHEIC) by WHO on 30th January 2020 and WHO declared it as a Pandemic on 11th March 2020. The treatments of patients are done with supportive care, isolation and experimental measures as there are neither vaccines nor specific antiviral treatments for COVID-19 declared by WHO. Preventive measures to reduce the chances of infection suggest

staying at home, physical distancing from others, avoiding a crowded place, washing of hands frequently with alcoholic soap and sanitizer for at least 20 seconds, avoiding touching face areas with unwashed hands, practicing good respiratory hygiene, wearing a mask at outside, covering hands with gloves at outside and the like.

In India, the first case of COVID-19 disease was confirmed on 30 January 2020 in the State of Kerala. Afterwards, COVID-19 positive cases are being increased. When 500 positive cases were confirmed, the lockdown was placed in India. The Janata Curfew was declared by the Indian government on 22 March 2020 from 7 a.m. to 9 p.m. On the day, all public activities were restricted except essential services such as medical services, police, media, home delivery professionals, and firefighters. Following this, a nationwide lockdown was announced by the Central Government of India from 25 March 2020 to 14 April 2020 for 21 days. Therefore, various phases of lockdown in India are being maintained:

Table-1 The Phases of lockdown in India

Phases	Period of Time	No. of Days
Phase- I	25 March, 2020 to 14 April, 2020	21
Phase- II	15 April, 2020 to 3 May, 2020	19
Phase- III	4 May, 2020 to 17 May, 2020	14
Phase- IV	18 May, 2020 to 31 May, 2020	14
Containment zone wise lockdown- June, July, August, September		

Source: https://en.wikipedia.org/wiki/COVID-19_pandemic_lockdown_in_India

All public activities except essential ones are restricted during lockdown due to COVID-19.

- Ban of people from stepping out of their homes
- Closure of all shops and services except hospitals, pharmacy, banks, grocery shops, and other essential services
- Closure of places of worship, commercial and private establishments.
- Suspension of non-essential public and private transports.
- Prohibition of face to face real physical activities like social, cultural, religious, political, sports, entertainment, and academic activities.
- Suspension of all educational, research, and training institutions.

The educational system has been affected worldwide by the COVID-19 pandemic on account of near-total closures of schools, colleges, universities, and other educational institutions. Most governments throughout the world have temporarily suspended all educational institutions in an attempt to prevent the spread of COVID-19. According to the report of UNICEF, 134 countries are currently implementing nationwide closures and 38 countries are maintaining local closures of educational institutions so that 98.5 % of the world's student-population is being affected. On 16 March 2020, the Indian government declared a countrywide lockdown of schools and colleges. On 19 March 2020, the University Grants Commission (UGC) recommended all universities to postpone exams till 31 March, 2020. On the other hand, CBSE and ICSE boards postponed the board exams until March 31 at first and then later until July 1. Therefore, the Phase- I lockdown was started throughout the country from 25 March, 2020 and it forced all educational institutions to suspend physical classrooms.

In response to the closure of educational institutions, UNESCO recommended the use of digital-based open educational applications and platforms to reach learners remotely and limit the disruption of education. CBSE released a notification titled 'Lockdown- A Golden Opportunity for Education' on 26 March 2020. The document specifies what should be done by learners, teachers, and parents at the time of lockdown to be productive. It suggests to involve students through e-classes, games, video shoots, and related activities in their daily routine as the children have unlimited time and resources. Online learning has become the lifeline for education. Technology can enable the education system by decreasing social distance but maintaining enough physical distance between students and teachers. Thus, the education system has shifted towards online mode during the phases of lockdown. In India, this transition has been smooth for most private educational institutions but the public educational institutions are still adapting.

Online education can be imparted in three ways: teachers can make short videos of teaching or lecture on a topic and can circulate it through WhatsApp group of students or it can be uploaded to the web pages of the institution so that students can easily access it, secondly recorded lecture or demonstration can be opened out to the public as Massive Open Online Course (MOOCs), thirdly it can be conducted through face to face real-time digital platforms like zoom, Cisco Webex meet, Google Meet, Google Hangouts, Google Duo etc, where students and teachers can directly interact with each other. For this type of online education, educational institutions should have stable IT infrastructure, high-speed internet, learning management systems, tech-savvy teacher, as well as students also need stable high-speed internet connection, smart phones, laptops or computers, and the technological and financial supports of parents.

To deliver e-education in India, there are various platforms supported by the Ministry of Human Resource Development (MHRD), the National Council of Educational Research and Training (NCERT), the All India Council for Technical Education (AICTE), the Department of Technical Education, the University Grants Commissions and the like. The initiatives include e-PG Pathshala (e-content), SWAYAM (online courses for teachers), the National Educational Alliance for

Technology (enhancing employability) and so on. There are also some initiatives the National Project on Technology Enhanced Learning (NPTEL), the National Knowledge Network (NKN), the National Academic Depository (NAD) and the like with respect of the preparation of course materials, running of online modules and classes. Some more noteworthy initiatives are the CEC-UGC YouTube channel, Vidwan-a database of experts who provide information to peers, Spoken Tutorial, e-Yantra, Free, and Open Source Software for Education (FOSSEE), and the like.

There are various digital online synchronous learning platforms where learners and instructors can interact in a virtual place at a specific real-time through video conferencing. Some noteworthy such platforms are Zoom, Webex, Google Classroom, Skype, Google Duo, Google Hangout, Google Meet, Microsoft Teams, and the like. Teachers can demonstrate lessons using teaching-learning materials by switching on share screen options. Students can clarify their doubts by interacting with teachers. Student-teachers direct discussion can be organized on these platforms for teaching-learning. Different activities including co-curricular activities and morning assembly can also be planned on these platforms. Even the platforms can be used for the evaluation of learning.

Many educationists are worried over the fact that online education or e-education can threaten to cut off a sizeable number of children. In the words of education activist M. Shajarkhan, the proliferation of online learning platforms will only widen the digital divide. To combat with this issue, different states have taken different measures according to the conditions of the states. The states like Haryana, Rajasthan, Himachal Pradesh, and Rajasthan have directed their teachers to form WhatsApp groups to help parents and students to support education. Some states have organized other media like TV and radio for imparting education.

Teacher Education Institutions have also taken some initiatives for serving the educational needs of student-teachers. The teacher-education programs are of various types and levels such as D.El.Ed, B.Ed., M.Ed. and the like. The D.El.Ed is a 2-year-full time Diploma of Elementary Education for primary and upper primary levels whereas B.Ed. or Bachelor of Education is the undergraduate professional degree course for secondary and higher secondary levels. The M.Ed is a post-graduate tertiary level teacher education program. The present study is concerned about the teaching-learning practice which was occurred during the lockdown periods at secondary teacher education institutions or B.Ed. colleges.

II REVIEW OF RELATED LITERATURE

Amit Kumar Arora and R. Srinivasan (2020) conducted a study to assess the adoption rate for virtual classes and to determine different benefits, challenges and reasons for the non-adoption of virtual classes at higher education institutions in Ghaziabad during the lockdown period declared by the Indian government due to COVID-19. They have taken responses from 341 teachers of higher education institutions by dividing two parts in which one set of respondents who have adopted virtual classrooms and another set that did not adopt virtual classrooms. Descriptive statistics and t-test were performed to analyze the data. It is found that the mean of actual benefits was significantly less than the mean of expected benefits in the case of the respondents who adopted virtual mode. Network issues, lack of training, and lack of awareness have been found as major challenges faced by them who did not adopt virtual classrooms. Less attendance, lack of personal touch, and lack of interaction due to connectivity issues were found as significant drawbacks of virtual classes. A study which was done by Veena Shenoy, Sheetal Mahendra and Navita Vijay (2020) aimed to seek answers regarding the adoption of technology, teaching & learning processes, student engagement, and faculty experience towards virtual classroom during the lockdown due to COVID-19 at higher education institutions in Bangalore, India. Inductive reasoning was used in this study and qualitative methods are applied. The finding indicates that there has been created a revolution in Indian higher education; popular adoption of the technology for the teaching-learning process and more students' involvement towards the learning process is found than the regular class engagement. Giogi Basilaia and David Kvavadze (2020) made a case study in Georgia with 950 students of private schools where the Google Meet platform was implemented for online education. The results confirm that the transition to the online form of teaching-learning went successful and COVID-19 has forced a generation of new laws, regulations, platforms, and solutions for the future. It also examines the capacities of the country and its population to continue the education process at the school level in an online form of distance learning. John Danie (2020) suggested asynchronous learning in digital formats to ramp up the capacity to teach remotely schools and colleges and teaching should include varied assignments to repair the damage to students' learning trajectories. Richa Choudhary (2020) has suggested five strategies for the education sector in India such as open-source digital learning solutions, learning management software, inclusive learning solution especially for the most vulnerable and marginalized groups, e-learning based pedagogical methodologies, and platforms. Michael P.A. Murphy (2020) opined that securitization theory is an important tool for educators to observe and understand the phenomenon of emergency e-learning as well as to advocate desecuritization of schooling after the COVID-19 crisis passes. Sakshi Bansal (2020) analyzed different papers and highlighted various things such as practicing lecturing with and without videos, sharing clips and slides, group discussion, online polls, PowerPoint presentation by faculties as well as student-related issues like imagination and analytical thinking among students, plagiarism by students at assignment submission, difficulties in Lab or practical classes, technical difficulties of online classes and lastly the physical and mental health issues of students reported more than 3730002 cases. A study led by Agus Purwanto, Rudy Pramono et al. (2020) aimed to highlight the constraints of online teaching-learning process at home at the primary level in Indonesia during the lockdown of COVID19. The study followed a qualitative exploratory case study where fifteen teachers and parents, belonged to two primary schools of the country were surveyed through semi-structured interview questions. The study founded out different challenges such as limited communication & socialization, lack of learning discipline, longer screen time in relation to students, lack of technological skills, higher internet bills, spending more time in to assist children's learning were found as the problems of parents and lastly less coverage of curriculum content, lack of technology skills, lack of e-resources in Indonesian language, coordination with colleagues and principals, higher internet bills, longer screen time, time-consuming communication with parents were revealed as problems faced by teachers. According to Archana Shukla (2020), in Maharashtra at the district of Amravati, the municipal schools used basic internet app, the WhatsApp to communicate with students. The school teachers have been advised to make WhatsApp group of all parents in their respective classes and send lessons to the students for learning at home. Teachers have also taken the help of DIKSHA, the central

government's portal in multiple languages for all classes from primary to senior secondary. Some teachers have also made videos on practical lessons those were shared on the WhatsApp groups.

III OBJECTIVES

The study has formulated some objectives which aim:

- i. To analyze online teaching-learning practices during the lockdown phases caused by COVID-19 in private secondary teacher education institutions in West Bengal.
- ii. To find out the virtual platforms used as teaching-learning platforms during the lockdown phases caused by COVID-19 in private secondary teacher education institutions.
- iii. To determine teaching-learning methodologies followed in online education during the lockdown period in private secondary teacher education institutions.
- iv. To find out teaching-learning materials used in online education during the lockdown period in private secondary teacher education institutions.
- v. To describe the participation of student-teachers in online education during the lockdown period in private secondary teacher education institutions.
- vi. To compare locale wise online teaching-learning practice during the lockdown period in private secondary teacher education institutions.
- vii. To determine the role of management bodies with respect to online education during the lockdown period in private secondary teacher education institutions.

IV. HYPOTHESES

The two hypotheses have been prepared for inferring the population.

H₀₁: There are no significant differences in mean scores among urban and rural private secondary teacher education institutions with respect to online teaching-learning practice during the lockdown period caused by COVID-19.

H₀₂: There are no significant differences in mean scores among secondary teacher education institutions run by differential management styles with respect to online teaching-learning practice during the lockdown period caused by COVID-19.

V. MATERIALS AND METHODS

The investigation has followed proper scientific methodology to accomplish the study systematically and successfully for adding new knowledge. The survey method has been followed and the samples have been surveyed through telephonic interviews. The total number of sample is 30 who are the teacher-educators of different private secondary teacher education institutions or B.Ed. colleges recognized by NCTE (National Council for Teacher Education) and affiliated to The West Bengal University of Teachers' Training, Education Planning and Administration under the districts of North 24 Parganas, South 24 Parganas, Kolkata, and Howrah at the State of West Bengal in India. Each teacher-educator has represented his or her college in terms of teaching-learning practice which occurred during the lockdown period caused by COVID-19. The stratified random sampling techniques have been applied for the collection of samples. A self-made questionnaire schedule was used by the investigators for the collection of data from the samples. After constructing the tool, it was verified by three experts. The experts verified the face validity of the tool. The due importance was given to the suggestions and recommendations stated by the experts for the modification of the items in the questionnaire schedule. The Cronbach's back alpha was determined in respect of the tool and it indicates the value 0.76 which reflects the good reliability of the tool. There are two categorical variables such as locale and management body. Locale includes two levels such as urban and rural whereas there are two types of management body e.g. strong management and weak management in the category of the management body. The data have been collected in May-June months of 2020.

VI. ANALYSIS AND RESULTS

When the countrywide lockdown was declared by the Indian government in March 2020, there were running semester II and IV of in the B.Ed. colleges of West Bengal. In semester II there are Learning and Teaching, Assessment for Learning, Knowledge and Curriculum part I as common courses, Drama and Arts in Education as EPC (Enhancing Professional Capacities) course and Pedagogy of school subjects as specialized courses as well as short term school internship. On the other hand, in the case of semester IV there are Gender, School and Society, Creating an Inclusive school, Knowledge and Curriculum part II as common courses, Critical understanding of ICT and Yoga Education as EPC courses and some special papers. Let's see how the pandemic pedagogy has been conducted in those private B.Ed. colleges in West Bengal during the lockdown period.

61. Virtual Platforms- From the survey, it has been found out that the teacher-educators used WhatsApp, Zoom, Google Classroom, Google Duo, Google Meet, Skype and even teleconferencing over the phone as virtual platforms to interact with student-teachers for the teaching-learning purposes during the lockdown period. The use of WhatsApp as a teaching-learning platform was most popular because its mean value (4.3) is highest followed by phone calls or teleconferencing over the phone (mean score 3.67). In other words, 33.33% strongly agreed and 63.33% agreed responses support that WhatsApp was the most favoured platform for delivering education on account of its popular use, user-friendly operation, multiple functions, and simplest way of communication. On the other hand, phone calls or teleconferencing over the phone was the next popular way and traditional medium which is supported by the 30% strongly agreed and the 33.33% agreed responses. Next, 30% strong responses say that at first Zoom (mean score 2.87) was very much popular among teacher-educators and student-teachers because of its user-friendly functions but later the security issues decreased its use so that the 30% and 23.33% teacher-educators disagreed and strongly disagreed respectively regarding the use of Zoom. Only 6.67% strongly cases have been found in favour of using Google classroom (mean score 1.87) whereas 50% teacher-educators disagreed its use. On the other hand, 3.33% strongly cases Google Duo (mean score 1.73) was used but the 50% teacher-educators disagreed on its use. Lastly, in the category of others there were Skype and Google Meet used by few teacher-educators.

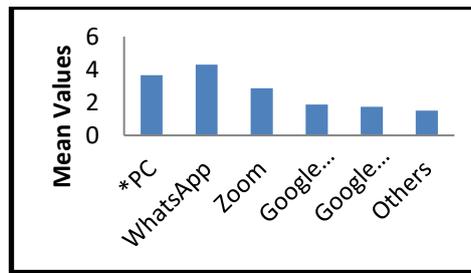


Figure 1. Virtual Platforms for Teaching-Learning

* Phone call or teleconferencing over phone

6.2 Use of Teaching-Learning Materials- The use of Teaching-Learning Materials (TLM) is an inevitable part of teaching. From the study, it is cleared that although the teacher-educators provided different learning materials to student-teachers for the teaching-learning during the lockdown period, its magnitude was low. In 36.67% cases, it has been found that the teacher-educators took the class without TLM whereas the 30% teacher-educators remained indifferent regarding its uses. Only the 13.37% each strongly agreed and agreed responses have been found out in favour of using TLM.

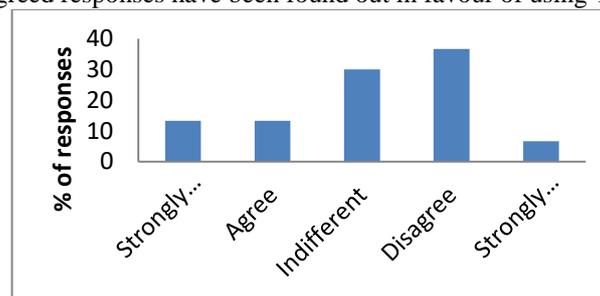


Figure 2. The Use of Teaching-Learning Materials on Virtual Platforms

Again, the 76.67% agreed responses from the teacher-educators show that the book images (mean score 4.13) were the most popular form of learning materials which helped student-teachers greatly for self-learning at home. The next is the PowerPoint presentation (mean score 2.3) which was strongly used by only 10% teacher-educators and 60% cases, it has been revealed out that they didn't use it. On the other hand, 20% strongly agreed and 23.33% agreed responses from teacher-educators reflect that they have prepared self-made short videos of teaching and uploaded those on virtual platforms for the teaching-learning.

6.3 Teaching Methods- Now, it is required to find out the teaching methods followed in online platforms for delivering education. From the survey, it is noticed that teacher-educators used lecture methods, question-answer techniques, discussion methods, and demonstration methods for the teaching-learning on virtual platforms. Although the mean value of lecture methods (mean score 3.97) exceeds the mean scores of other methods, no wide difference is found in mean scores of the methods of teaching. The 70% agreed responses from teacher-educators supported the use of lecture methods because it was easy to employ whereas 56.67% agreed responses say that teacher-educators used question-answer techniques (mean score 3.63) for clarifying doubts of student-teachers. On the other hand, 36.67% agreed responses from teacher-educators indicate that they arranged discussion (mean score 3.53) on virtual platforms for the teaching whereas the 33.33% teacher-educators remained indifferent regarding its conduct. The arrangement of discussion for the teaching was not easy in virtual platforms because of some issues like time constraints, coverage of syllabus, student participation etc. Lastly, the lowest mean score is noted in the demonstration methods (mean value 2.87) and only 13.33% strongly agreed and 6.67% agreed responses have been found with respect to using demonstration method. Only 10% teacher-educators strongly stated that they used PowerPoint as TLM and that is why the lowest mean score has been observed in the demonstration method of teaching than other methods.

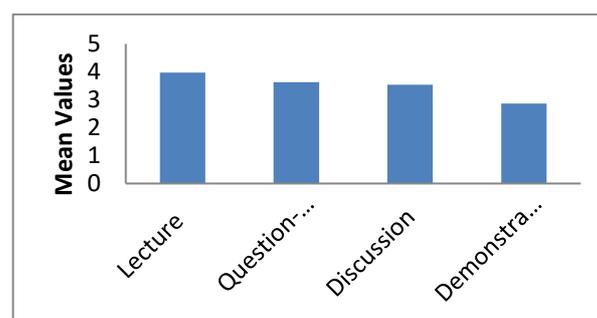


Figure 3. Types of Teaching Methods employed on Virtual Platforms

6.4 Time-table- A time table is required for the proper division of activities of teachers and students throughout a day. Has there any day-wise fixed time table for organizing online education in the B.Ed. colleges during the lockdown period?

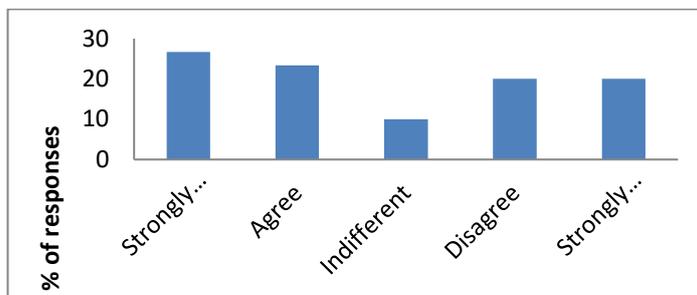


Figure 4. Fixed Time Table for Online Education on Virtual Platforms

From the above charts (fig. no. 4), it is seen that 26.67% teacher-educators strongly replied and 23.33% agreed responses from teacher-educators reflect that online education has been provided through a fixed time table whereas 20% each strongly disagreed and disagreed responses indicated that no fixed time table was there during delivering contents in online modes. Only, the 10% teacher-educators remained indifferent regarding time table issues. Therefore, moderately use of a fixed time table has been noticed.

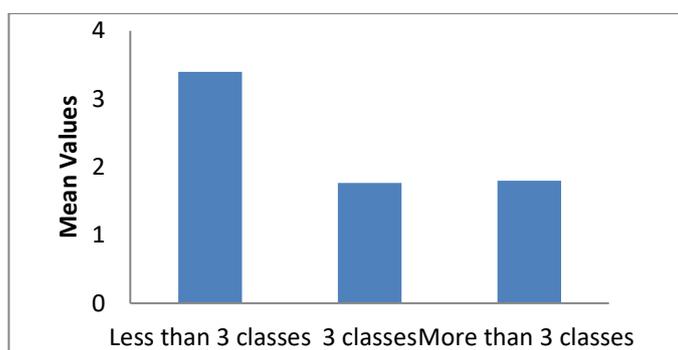


Figure 5. The Day-wise number of classes taken by Teacher-Educators

From the above diagrams (fig. no. 5), it is noticed that the 40% teacher-educators strongly agreed with respect to taking less than 3 classes per day in the fixed time table. On the other hand, only 6.67% strongly agreed and the 3.33% agreed responses from the teacher-educators with respect to taking more than 3 classes per day placed it in second position. So, it has been found out that mostly teacher-educators have taken less than 3 classes per day.

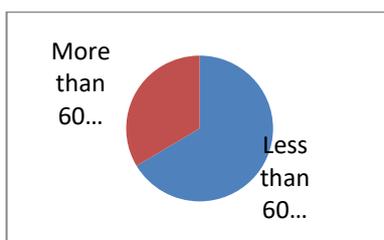


Figure 6. The Period of Time per Class

In the case of period of time, each class less than 60 minutes, 33.33% each strongly agreed and agreed responses from teacher-educators have been observed whereas 53.33% teacher-educators strongly disagreed with respect to taking a class more than 60 minutes so that the mean score of the former which is 3.57 exceeds the mean score of the latter refers to only 1.8. So, it can be said that mostly less than 60 minutes were spent per class for delivering education on virtual platforms.

6.5 Participation of student-teachers- The participation of students is a vital factor for a successful teaching-learning process. Here, 13.33% teacher-educators have given strongly agreed and again 23.33% have provided agreed responses in support of students' attendance in virtual teaching-learning during the lockdown period whereas 33.33% teacher-educators remained indifferent with respect of students' attendance. Moreover, the 26.67% teacher-educators disagreed regarding students' attendance in virtual platforms. Hence, we haven't received students' attendance satisfactorily. There were various reasons behind this.

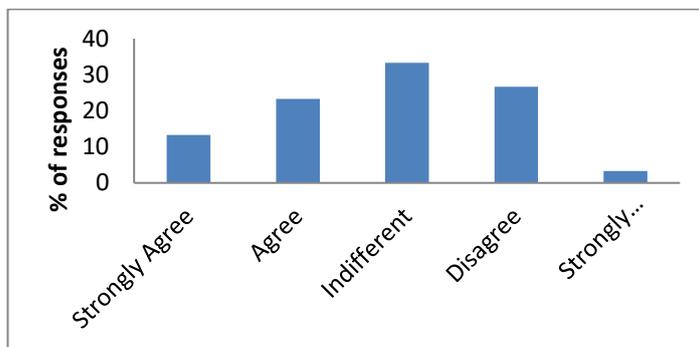


Figure 7. The Attendance of Student-teachers in Online Education

There have been seen technological barriers those are supported by the 26.67 % agreed responses from teacher educators with respect to availing virtual platforms for getting online education whereas the 50% teacher-educators remained indifferent and again 13.33% teacher-educators have strongly disagreed this issue. The next reason for low student participation was internet connection issues which are supported by 30% agreed responses from teacher-educators and the 56.67% teacher-educators remained indifferent regarding this issue. The next cause was the lack of interest among student-teachers regarding taking online teacher education. Previously, many studies reported with the lack of interest issues among student-teachers in actual classroom and this problem causes low attendance of students in teacher education institutions. This issue is faced by many teacher education institutions throughout the country. Here, the 46.67% teacher-educators agreed this issue and again the 36.67% teacher-educators remained indifferent regarding the issue.

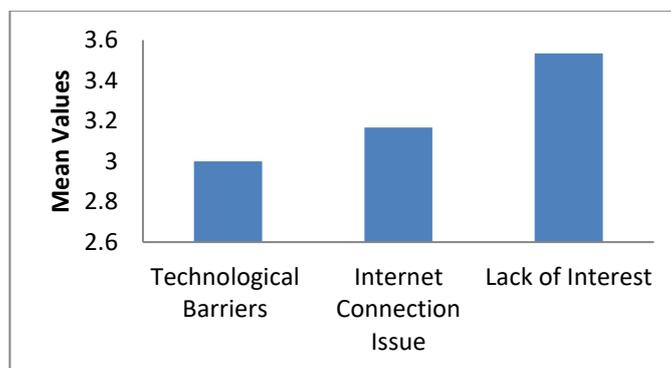


Figure 8. The causes of students' absence

Mainly these three causes have been noticed but the lack of interest among student-teachers has been found as the dominant factor (mean value 3.53) among other factors of low attendance. Hence, a good number of student-teachers have been found as non-participants on virtual platforms for getting teacher education. Moreover, the active participation of students during teaching-learning was another important determinant.

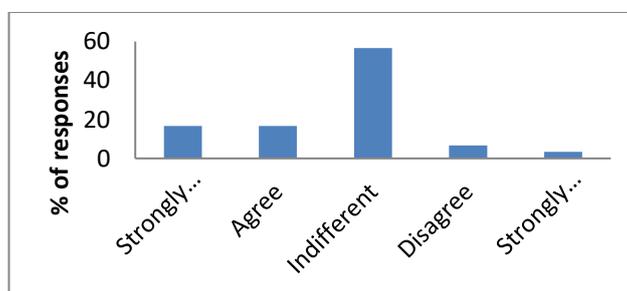


Figure 9. The Active participation of Student-teachers during teaching-learning

From the diagrams (fig. no. 9), it is cleared that the 56.67% teacher-educators remained indifferent with respect to active participation of student-teachers during teaching-learning on virtual platforms. On the other hand, the 16.67% strongly agreed responses and again the 16.67% agreed responses from teacher-educators supported the active participation of student-teachers during the teaching on virtual platforms.

6.6 Reinforcement from Management Authority- In private teacher education institutions, management authority plays a key role with respect to taking different initiatives and development of the institutions. From the investigation, it is observed that 60% agreed and again 16.67% strongly agreed responses from teacher-educators prove that the management authority of the

institutions has taken well initiatives for starting classes in online modes during lockdown periods due to COVID-19. On the other hand, 3.33% strongly disagreed responses from teacher-educators say that in some teacher-education institutions management body has not taken any initiatives for starting the online classes so that in those cases classes have not started in the institutions or principals took a key role for starting the classes in online mode. Again, the 20% teacher-educators remained indifferent in this matter. Therefore, 50% agreed and again 20% strongly agreed responses from teacher-educators indicate that principals and management bodies have conducted meeting at regular basis for discussing different issues especially online classes during lockdown periods whereas 16.67% disagreed and again 3.33% strongly disagreed responses prove that there has not been conducted such meeting and obviously in those cases, either management authority has not decided the starting of such classes or the classes have been run under the initiatives of principals.



Figure 10. The Salary Acceptance Status of Teacher-educators

From the investigation, it has been observed that 20% strongly agreed and 16.67% agreed responses from teacher-educators supported the full acceptance of salary during the months of the lockdown period whereas 10% strongly agreed and again 26.67% agreed responses from teacher-educators established the fact that they have received the irregular amount of salary at the irregular basis. On the other hand, the 30% teacher-educators strongly reported that no salary has been disbursed to them from the institutions during the months of lockdown.

H₀1: There are no significant differences in mean scores among urban and rural private secondary teacher education institutions with respect to online teaching-learning practice during the lockdown period caused by COVID-19.

Table-2 Mean and SD of Urban and Rural B.Ed. Colleges with respect of Teaching-Learning Practice

Locale	Number of B.Ed. Colleges	Mean	Standard Deviation
Urban	15	142.7333	23.41998
Rural	15	125.2666667	14.14449245

The t-Test: Two-Sample Assuming Equal Variances technique was applied to compare the mean scores of urban and rural B.Ed. Colleges with respect to teaching-learning process conducted during the lockdown period caused by COVID-19. The details of the t-test have been given below:

Table -3 t-Test: Two-Sample Assuming Equal Variances

	Urban	Rural
Mean	142.7333	125.2667
Variance	548.4952	200.0667
Observations	15	15
Pooled Variance	374.281	
Hypothesized Mean Difference	0	
df	28	
t Stat	2.472531	
P(T<=t) one-tail	0.009878	
t Critical one-tail	1.701131	
P(T<=t) two-tail	0.019755	
t Critical two-tail	2.048407	

From the above table, the p-value indicates the number 0.019755 which is less than 0.05 level of significance so that the null hypothesis is rejected and the result is significant. Hence, there are significant differences in mean

scores among rural and urban B.Ed. colleges with respect to the online teaching-learning process during the lockdown period caused by COVID-19. The mean score of urban B.Ed. colleges exceeded the mean score of rural B.Ed. colleges. It implies that urban B.Ed. colleges performed better than rural B.Ed. colleges in terms of providing online teaching-learning during the lockdown period caused by COVID-19.

So, it can be inferred that the locale factor is an important factor for online education in secondary teacher education institutions during the lockdown period caused by COVID-19. Due importance has been given in online education at the secondary teacher education institutions in urban areas than the secondary teacher education institutions in rural areas.

H₀₂: There are no significant differences in mean scores among secondary teacher education institutions run by differential management styles with respect to online teaching-learning practice during the lockdown period caused by COVID-19.

Table-4 Mean and SD of B.Ed. Colleges run by differential management bodies with respect of Teaching-Learning Practice

Management Types	Number of B.Ed. Colleges	Mean	Standard Deviation
Strong	19	144.8421053	15.71716386
Weak	11	115.2727273	14.93379328

The t-Test: Two-Sample Assuming Unequal Variances technique was applied to compare the mean scores of B.Ed. Colleges run by differential management styles with respect to the teaching-learning process conducted during the lockdown period caused by COVID-19. The details of the t-test have been given below:

Table-5 t-Test: Two-Sample Assuming Unequal Variances

	Strong Management	Weak Management
Mean	144.8421053	115.2727273
Variance	247.0292398	223.0181818
Observations	19	11
Hypothesized Mean Difference	0	
df	22	
t Stat	5.125982971	
P(T<=t) one-tail	1.94263E-05	
t Critical one-tail	1.717144335	
P(T<=t) two-tail	3.88526E-05	
t Critical two-tail	2.073873058	

In the table, the p-value shows the number 0.0000388526 which is less than 0.05 level of significance so that the null hypothesis is rejected and the result is significant. Hence, there are significant differences in mean scores among B.Ed. colleges run by two types of managerial bodies with respect to online teaching-learning during the lockdown period caused by COVID-19. The mean score of B.Ed. colleges under strong management bodies exceeded the mean score of B.Ed. colleges under weak management bodies. It implies that the B.Ed. colleges under the control of strong management performed better than the B.Ed. colleges under weak management bodies in terms of online teaching-learning practice during the lockdown period caused by COVID-19.

From the inference, it is clear that management bodies played a vital role for conducting online classes at secondary teacher education institutions in West Bengal. Not only the locale factors but we have to also consider the role of management bodies with respect to conducting online classes during this period.

VII. DISCUSSION

From the data-based discussion, it is clear that alternative mode of teaching-learning was practiced in private B.Ed. colleges in different districts of West Bengal, India during the lockdown period caused by COVID-19. Theoretical parts were delivered by lecture methods, question-answer techniques, discussion methods, and demonstration methods using various virtual platforms like WhatsApp, Zoom, Google Classroom, Google Duo, Google Meet, Skype as well as teleconferencing. The construction and report writing parts of the practicum were also instructed in this way. WhatsApp was used widely as a virtual platform on account of its multi-functioning like video calling, voice calling, chatting, voice messaging, document sending, image sending, video sending, group, and ultimately popular use and user-friendly features. At first, education was being imparted popularly on Zoom but later its security related issues curtailed its acceptance. Teleconferencing over the phone or simple phone calls between teacher-educators and student-teachers was well-liked. The virtual platforms used with respect to alternative teaching-learning practice determined the methods of teaching. Teacher-educators mainly employed question-answer techniques, discussion methods on WhatsApp and teleconferencing over phone. On the other hand, demonstration, discussion, lectures were applied on Zoom, Google Meet and Skype etc. Google Classroom was used only for uploading learning materials and evaluation purposes. The study reflects that book images or book documents were provided widely to the student-teachers as learning

materials. Some teacher-educators prepared self-made videos those were circulated through the WhatsApp groups of students for the teaching-learning. In some cases, the instruction was provided through PowerPoint presentation on virtual platforms. Since the taught were mature enough, the knowledge was imparted widely through verbal symbols (it supports the fact established by Edgar Dale in his popular concept, 'Cone of Experience'). There were nearly 50% cases where the fixed time table was being maintained for online classes whereas the 40% cases indicate no use of time table. Moreover, the 10% indifferent cases were found out. Total 50% cases reflect that either alternative online education was poorly maintained or not executed. In most of the cases, it is seen that teacher-educators took two online cases daily by spending less than 60 minutes per each class. Sometimes, they had to take more than three classes for serving the needs of the student-teachers. The participation of students was moderately satisfactory. Some student-teachers attended the classes at the regular basis. In most cases, it was not strongly satisfactory. Currently, the absenteeism of student-teachers in regular classes is one of the major problems in teacher education institutions throughout the country. This problem was also reflected at virtual teaching-learning practice. Generally, student-teachers engage themselves in different earning practices to support their family and study so that lack of interest is detected in normal classes and it was also reported a major issue with respect to alternative online education during lockdown period. Moreover, there was Amphan issue, recently passed deadly tropical cyclone on Eastern parts of India which caused serious network and connectivity problems for a long time and physical infrastructure was completely got disturbed on affected areas due to this issue which also caused low attendance of student-teachers at subsequent periods of online classes. The next hurdle was salary-related issues. Some teacher-educators received full salary whereas some teacher-educators didn't get their monthly salary in the lockdown phases. Again, some teacher-educators got their salary in the irregular amount and the irregular basis. This issue seriously caused dissatisfaction among teacher-educators. From the investigation, it has been found out that the two factors e.g. locale and role of management authority ultimately determined the success of online teaching-learning practice during the lockdown period caused by COVID-19. The urban B.Ed. colleges performed better than the rural B.Ed. colleges in terms of providing online teaching-learning opportunities during lockdown periods. On the other hand, B.Ed. colleges under the control of strong management performed better than the B.Ed. colleges under weak management bodies in terms of online teaching-learning practice during the months of lockdown period.

VIII. CONCLUSION

The quality of online education requires future study. At present, there is no time to get into details of quality assurance of online education because the goal is to protect the education system and continue this in any possible format during this pandemic situation. This online mode of alternative education has assured the continuation of the teaching-learning process in different levels and types of education but it needs to develop the online examination system for grading students at semester end or final semester examinations. The school internship, a vital part of teacher education programs is the main challenge of delivering it in online mode. We are waiting for the decision of the regulatory body with respect to conducting the school internship in the coming session. We don't know when the situation will be normalized. If it is continued, NCTE should take a strong decision regarding the school internship.

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