



## THE IMPACT OF COVID-19 PANDEMIC ON THE ACADEMIC PERFORMANCE OF STUDENT TEACHERS

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### **Introduction:**

Coronavirus disease 2019 (COVID-19) is firstly identified in Wuhan city, Hubei Province, China in December 2019 as a pneumonia of unknown origin. Later, the international committee on taxonomy of viruses (ICTV) identifies the causative agent of COVID-19 as a novel coronavirus, severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). COVID-19 outbreak spreads rapidly not only in China, but also worldwide, therefore, the World Health Organization (WHO) has announced it as pandemic on March 12, 2020. The total number of confirmed cases and mortalities are 23,491,520 and 809,970, respectively, in 216 countries as of August 25, 2020.

Several governmental measures have been taken to counteract the risk of disease spreading. These measures include travel restrictions, mandatory quarantines for travelers, social distancing, bans on public gatherings, schools and universities closure, business closures, self-isolation, asking people to work at home, curfews, and lockdown. Authorities in several countries worldwide have declared either lockdown or curfew as a measure to break the fast spread of virus infection. These measures have a negative worldwide effect on the business, education, health, and tourism.

COVID-19 pandemic has affected all levels of the education system. Educational institutions around the world (in 192 countries) have either temporarily closed or implemented localized closures affecting about 1.7 billion of student population worldwide. Many universities around the world either postponed or canceled all campus activities to minimize gatherings and hence decrease the transmission of virus. However, these measures lead to higher economical, medical, and social implications on both undergraduate and postgraduate communities.

Due to the suspension of classroom teaching in many colleges and universities, a switch to the online teaching for all levels became mandatory. This form of learning provides an alternative way to minimize either the contact between students themselves or between the students and lecturers. However, many students have no access to the online teaching due to lack of either the means or the instruments due to economical and digital divide.



Few studies highlighted COVID-19 in relation to educational studies. COVID-19 has a profound impact on students at all levels. Therefore, the current study was conducted to analyze the impact of COVID-19 pandemic on the academic performance of student teachers during the lockdown.

#### Questionnaire Design

An online anonymous questionnaire was designed and an initial test was done on 50 participants to ensure that the draft questionnaire was understandable. The aim and uses of data of the questionnaire were briefly explained at the beginning of the questionnaire. An online Google form questionnaire link was shared with different student teachers on social media platforms. Student teachers were asked to answer the questionnaire for a research purpose. Participants were also asked to share the questionnaire link among their other colleagues; therefore, the questionnaire could reach many participants. The final questionnaire for this study consisted of 18 questions (11 closed-ended and 3 open-ended) divided into two sections as follow: The first section included 8 questions about the demographic characteristics of participants (email address, name, gender, age and area of residence. The second section evaluated the effect of COVID-19 pandemic on the study or research, and the online learning during the lockdown (the effect of lockdown on academic performance, electronic device used to study online, virtual learning tools used, time spent per day in online learning, evaluation of online learning both in the theoretical or practical parts, common problems encountered in the online learning, and suggestions to improve the online learning). This section consisted of ten questions as follow: three single-choice questions, three multiple-choice questions, one Likert-scale question, and three questions with free text answer.

#### Data Collection

Sample size was collected from 89 student teachers through a Google form. Data collection was done using a spreadsheet linked to the online Google form questionnaire.

#### Statistical Analysis

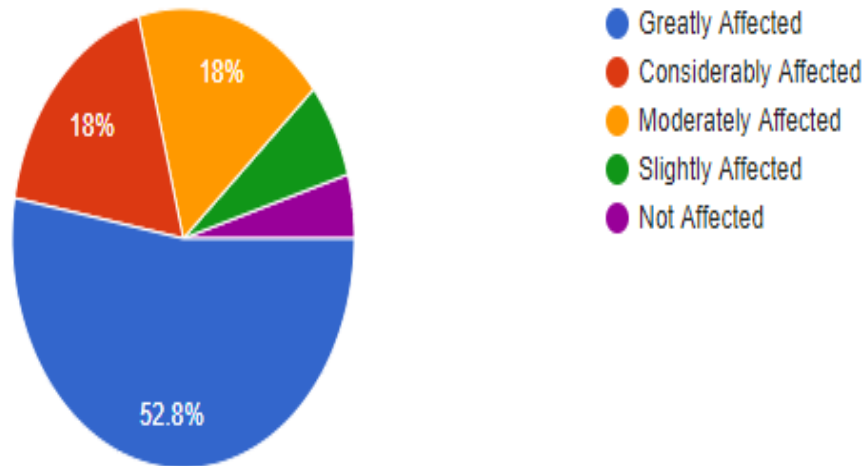
Descriptive statistics were presented as counts and percentages to summarize the collected data. To measure the effect of COVID-19 lockdown on the academic performance of student teachers, 5-Point Likert Scale was used. Answers were converted into numeric values as follow (greatly affected = 5 points; considerably affected = 4 points; moderately affected = 3 points; slightly affected = 2 points; not affected = 1 point. To evaluate the online education during the pandemic lockdown, a 10-Point Likert Scale was used. Participants were asked to evaluate the online education in general, and the online education in practical lessons during the lockdown (1 was the lowest evaluation and 10 was the highest evaluation). A total of 89 responses were retrieved for analysis. Of the 88 participants, 85.4 % were females and 14.6% were male. The age of participants ranged from 19 to 43 years. 79.8% student teachers were from Urban area and 20.2 % student teachers were from Rural area.



## Results

### 1. How did COVID-19 pandemic affect your study?

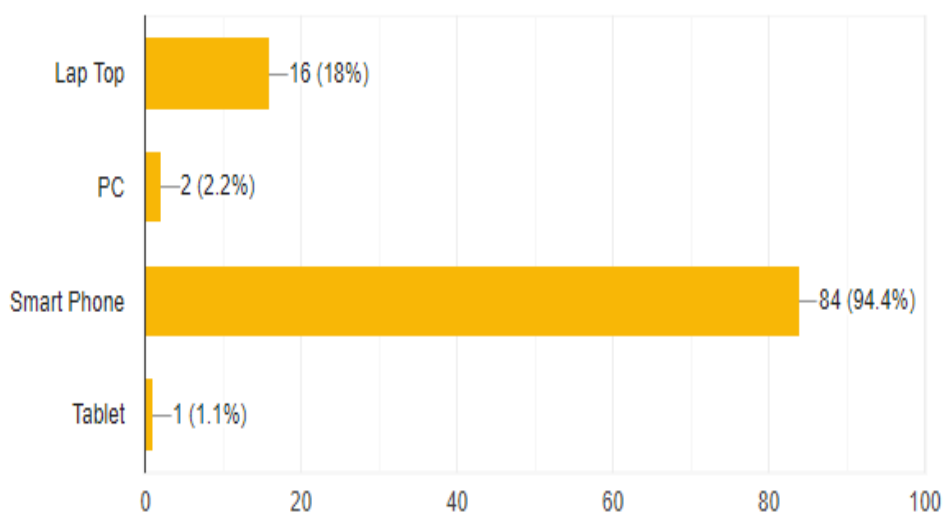
89 responses



Out of 89 respondents 52.8% students said that their studies were greatly affected by the pandemic, 18% said that their studies were considerably affected, 18% said that their studies were moderately affected and there was no response from respondents for slightly affected and not affected, this shows that the pandemic did affect the studies of student teachers.

### 2. Which electronic device do you use to study online during lockdown?

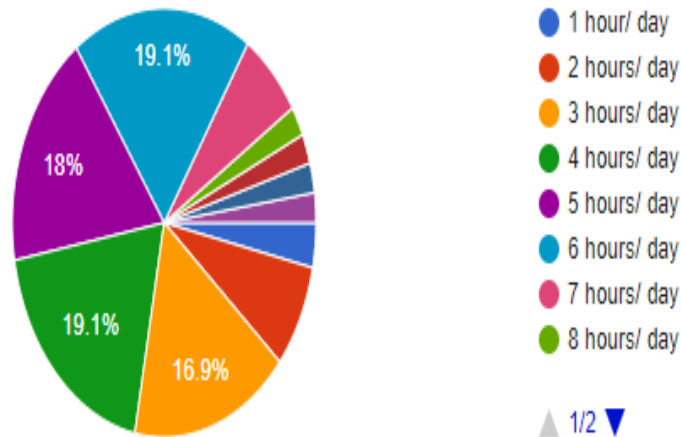
89 responses





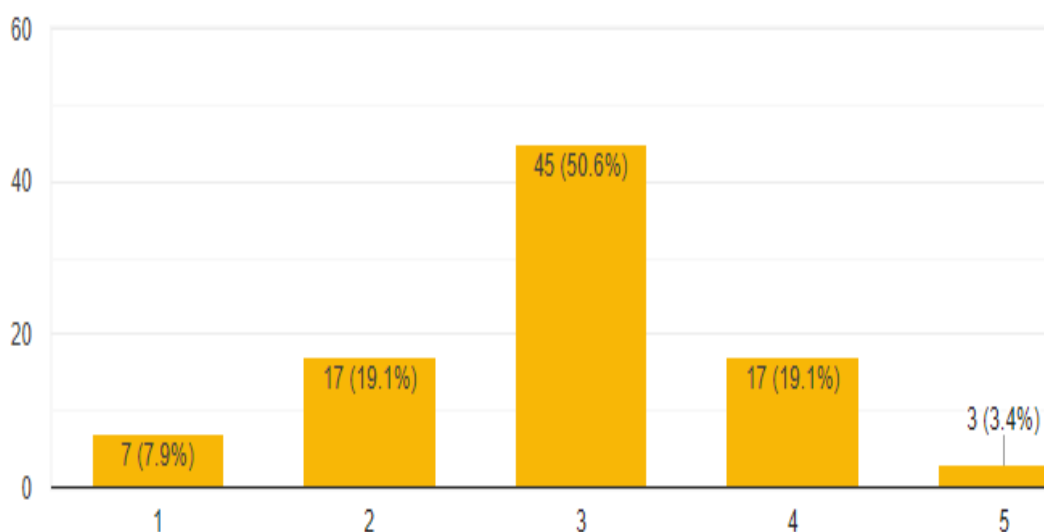
The Statistics showed that 18 % of the student teachers used laptop, 2.2 % of the student teachers used PC, 94.4% of the student teachers used their smart phones and very few that is 1.1 % of the student teachers used tablet for online learning.

### 3. How many hours do you spend in on-line learning during lockdown?



The response showed that 19.1 % student teachers spent almost 8 hours a day on online learning during lockdown, 16.9 % student teachers spent almost 3 hours a day on online learning during lockdown, 18 % student teachers spent almost 5 hours a day on online learning during lockdown, 19.1 % student teachers spent almost 1 hours a day on online learning during lockdown, the response here varies as the work allotted to the student teachers differs.

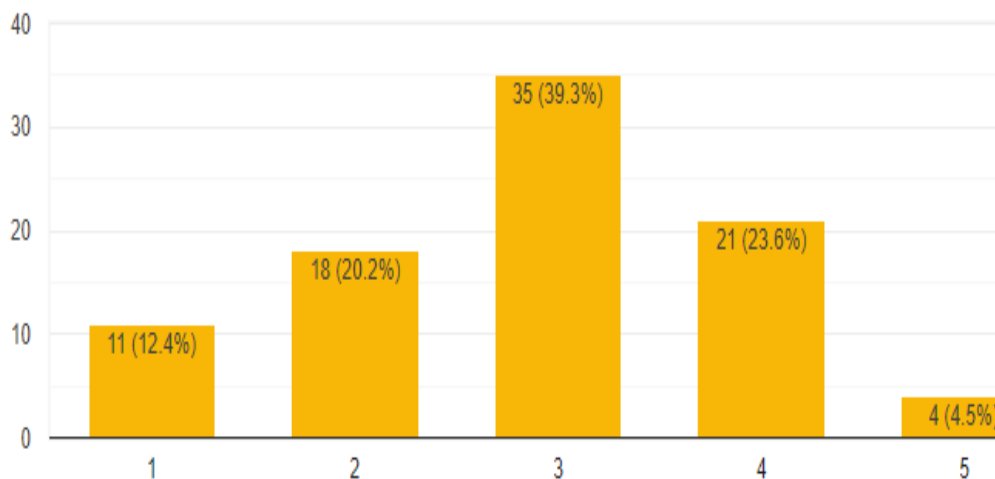
### 4. How do you rate on-line education during COVID-19 pandemic? (1 is the lowest evaluation)





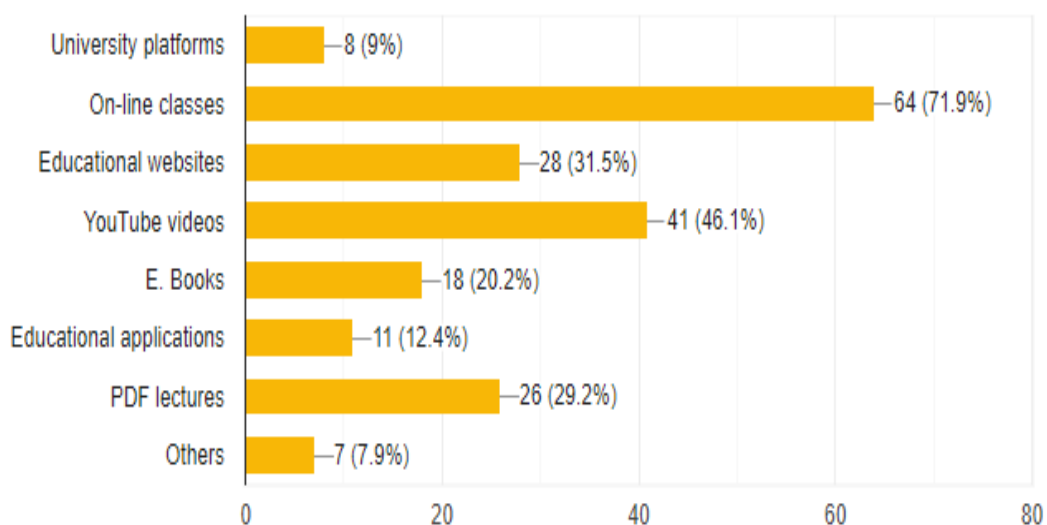
The response here suggests that the student teachers were reluctant to answer to this question as maximum number i.e. 50.6 % student teachers have preferred not to answer this question. Whereas 7.9% say it is bad and 3.4 % say it is excellent.

**5. How do you rate online education in practical lessons during COVID-19 pandemic?(1 is the lowest evaluation)**



The response here suggests that the student teachers were reluctant to answer to this question as many of them i.e. 39.3 % student teachers have preferred not to answer this question. Whereas 12.4 % say it bad and only 4.5% say it is excellent.

**6. Which virtual learning tools do you use during the lockdown?**

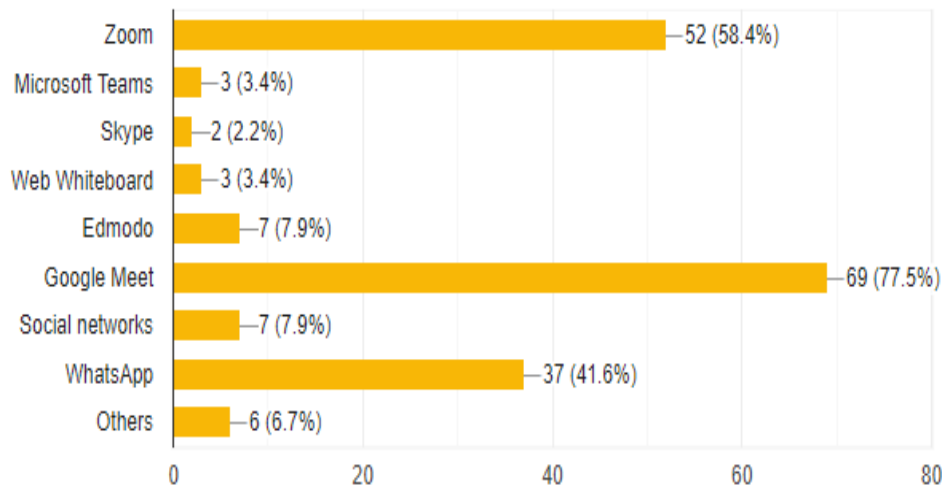


The response shows that majority of the students i.e. 71.9 % student teachers were dependent on the online classes for learning, 31.5 % student teachers used educational websites, after that 46.1 % student teachers



used YouTube for their learning, 29.2 % student teachers used pdf lectures, 20.2 % student teachers used E-books, very few were dependent on University platforms and other source for online learning.

### 7. Which online learning tool do you use during the lockdown?



The Data suggests that majority of the student teachers i.e. 77.5 % have used Google meet, following Zoom which was used by 58.4 %, Very few preferred other learning tools like Microsoft teams, skype,web white Board, Edmodo and others.

### 8. What are the common problems associated with online learning during the lockdown?

The participants' responses regarding to the common problems with online learning could be summarized as follow:

1. Studying online has affected health.
2. Students sitting next to phone for 5-6 hrs which affect their eyes. Also for B.Ed. main is practical lesson but it was doing not happen due to covid so didn't get much experience about practical learning.
3. As there is no proper range, we can't hear properly. And due to more usage of mobile it is affecting eyes, ears, etc.
4. नेटवर्क
5. Online learning is done through phones and laptop which is adversely affecting the health of the students and it severely causing headaches and watery eye.
6. Due to pandemic everything is late (syllabus, exams, etc) in online classes some concepts need more time but in race of syllabus completion it's more difficult to cope up. Practical knowledge is null.
7. Face to face interaction is not there, it is big disadvantage of online teaching
8. Doubts are not cleared during online classes, so many problems like hearing, viewing, clarity, eye problem, headache, many problems occurred during online classes. Time also affecting sometimes network issues.



### 9. How can we improve online education?

The students' recommendations regarding improvement of the online learning were summarized as follows:

- Provide more YouTube session means any time anywhere students can access this material and video
- As people can't concentrate much so every subject less topic should be covered in 1 session so that it will be easy to understand and remember.
- Not improve
- Giving proper educational sites, and fix time of online study. Not more than 4 hours.
- Should have reduce lecture hours as students can't concentrate for more than 2/3 hrs. Or should take only 2 lectures a day.
- All lectures will record and upload on the YouTube so that students were able to reattend them.
- Making lesson interesting and lot of interaction need comparing to offline lecture of lecture method or similar will you it will affect the students attention and interest.
- Can ask students to share their own views about the topic even marks should be allocated so it will create sincerity amongst them.\*apart form assignment as it will be available online.
- By taking online test like MCQ Pattern, provide the various video related to each subject which will help during exam time.
- By making a record of every lecture and putting it on YouTube or giving it to students so that afterwards they can revise
- By giving a chance to students of preparing, presenting, using all terms and techniques on online learning and teaching individually. by improving networks and increasing data packs
- By providing free mobile data for students and better networking special to students.
- By dividing the class total into half, so that each one gets attention, everyone pays attention. First to understand that each student has the device and other facilities too.
- By accessing more apps like H5p link quiz, hoot quiz link, Google forms using blackboard in the zoom or Google meet
- Small group education learning 5 to 10 group of students
- We can help to students how to handle electronic devices. We can guidance to students.
- Limit time duration and give in between breaks.

### Discussion

The current study showed that the most popular device that students used to access the online materials was the smart phone followed by laptop, while the least used tool was the personal computer. This result is in accordance with the results reporting that students use smart phones and laptops at higher rates followed by iPads/tablets then PC to access online mathematics lessons and social media. It is worth to mention that many



students have no access to the online teaching due to lack of either the means or the instruments because of economical and digital divide. Unequal access to computers and internet alters the effectiveness of online learning.

The studying hours spent for online learning ranged from <1 h/day to 8 h/day. Other than live streaming, students can access the online materials at any hour of the day when convenient to them. This flexibility helps some students to better invest their time and efforts while it is considered as a challenge to other students who cannot manage their own time. Our data showed that Google meet and Zoom had the highest preference followed by WhatsApp, and Google classroom while Microsoft Teams, Edmodo and Skype and Google Meet were moderately used in their online learning. It has been reported that freely available software, such as Zoom, Google Meet, Microsoft Teams, and WebEx are used widely in online teaching of medicine than others.

This novel way of teaching has been welcomed by majority of students due to its flexibility, convenience, and lower cost.

The most common problems associated with online education in general included the availability of internet in provincial and rural areas, the speed and cost of internet, the availability of electronic devices to access the internet, and the lack of interaction between students and lecturers.

To improve online education in general it is recommended to provide platforms for online learning, provide students with electronic devices to access the internet, improve the internet speed, provide cheaper or even free internet packages during the pandemic, provide professional training for lecturers, and enhance the interaction between students and teachers.

### **Concluding Remarks**

The current study showed that COVID-19 pandemic lockdown affected the academic performance of most participants with varying degrees. Online education helps to keep the students up and running with an opportunity for self-study. However, the main challenge online education faces is how to give practical lessons. Since most of the subjects are practical; therefore, it is not easy to learn it online. Students think that it is difficult to fulfill the competencies only with online education system. Online education can be improved by making it more interactive, showing simulations, giving concise information, and providing 3D virtual tools to mimic the real situation.

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