

# Impact of Covid-19 on Students' Academic Performance at BS Level: A Case Study of District Peshawar

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## Abstract

*The outbreak of the COVID-19 pandemic has caused drastic disruptions in various sectors worldwide, including education. This study aims at looking into the impact of COVID-19 on the academic performance of students at the BS level in District Peshawar, Pakistan. The study utilizes a mixed study approach to collect both quantitative as well as qualitative data. The findings of the study highlight several factors that have influenced the student's academic performance during the Covid-19 pandemic, such as the sudden shift to online learning, lack of access to technology, internet connectivity, limited interaction with class fellows and teachers, heightened the anxiety, stress levels and disruptions in study routines. The collected data indicates that most students have negative perceptions of academic performance. Additionally, the study examines the role of institutional support, such as online teaching methodologies and assessment strategies, in facilitating students' academic progress. Furthermore, this study aims to provide evidence-based recommendations to policymakers, educational institutions and stakeholders to mitigate the adverse effects of COVID-19 on BS students.*

**Keywords:** Higher Education, Covid-19 Impacts, University Students, Online Education.

## Introduction

Coronavirus disease 2019 is a widespread contagion that results in an extremely severe respiratory syndrome. At first the initial case was found in December 2019 in Wuhan (China). Then its outspread could not be stopped in the world despite strict restrictions and SOPs (UNICEF, 2021). Over 17,000,000 Covid cases were reported and caused more than 660,000 mortalities by the end of July 2020, inflating an enormous strain on the health systems of many nations (Commonwealth, 2021). COVID-19 cases reported in over 605,912,418 cases globally as of September 2022, and more than 6,491,649 people have already passed away in the wake of COVID-19 (WHO, 2022). The pandemic also severely impacts social and economic institutions across the world, causing the worst global crisis since the 1930s.

On March 13, 2020, the government of Pakistan declared a three-week closure of all educational institutions and ordered them to follow SOPs (Akmal, 2020). According to the DAWN newspaper of May 8, 2020, it was decided by the National Coordination Committee (NCC) to extend the closure of educational institutions in the country till July 15 and also to cancel all examinations to be conducted by the boards due to the spread of the coronavirus pandemic (DAWN, 2020). In Pakistan, the majority of teachers use face-to-face instruction, so online teaching is a challenge for them. Pakistan, like most other countries, needed to prepare for the sudden transition from classroom to online distance education. Despite the fact that practically everyone in society is affected by COVID-19, Physical and mental disabilities

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among students made them more responsive to the wave and vulnerable. In addition to this, studying online without human interaction caused mental stress in the students (Nasir, 2021). The majority of countries in the world temporarily shut down educational institutions so as to stop the spread of COVID-19. So far, pandemic-related closures of educational institutions had an impact on around 1.726 billion students (Tasdesse, 2020). According to a UNICEF report, around 98.6% of the world's student population was affected by the closures, which were implemented in 106 national closures and 55 local closures (UNICEF & UNESCO, 2021). Unfortunately, the situation of education has never been exemplary in Pakistan since its inception. According to statistical reports, 25 million Pakistani children are not attending school. Out of which 2.5 million children are from Khyber Pakhtunkhwa. The public sectors are the main sectors providing education to 71%, the private sector with more than 6000 institutions to 17%, and Deeni Maddaris to 12% of the total enrolled children (Gouleta, 2015). Pakistan was no exception; Covid-19 affected more than two hundred thousand and took more than six thousand lives. The entire episode of COVID-19 has resulted in devastating economic conditions. It swelled unemployment and inflation and created numerous further social issues in our already problem-stricken society. Masses had been restricted to homes. The mobility to Mosques and other places of worship had been restricted, and more importantly, educational institutions, i.e. schools, colleges, universities and Deeni Madaris, had been closed for an unknown period of time. The closure of educational institutions bore far-reaching psycho-socio impacts on the students (Khalil, 2020).

### **Problem Statement**

After the outbreak of covid-19, it resulted in the closure of educational institutions across the globe. As far as developing countries are concerned, specifically countries like Pakistan, it is affected more grievously due to the lack of pro-requisite facilities and infrastructure that is required for online classes. So, this novel disease has created novel concerns and issues for third-world countries to cope with. The present research aims to explain the impact of Covid-19 on the academic performance of students at the BS Level in the district of Peshawar. Moreover, this research might contribute in future by highlighting the issues that can be utilized by a researcher in future in case such untoward situation sets in again.

### **Research Objectives**

1. To investigate the effects of COVID-19 on students' academic achievements at the BS level.
2. To evaluate the learning process of BS students during Covid-19 in Peshawar district.

### **Methodology**

#### **Research Nature**

A mixed methodology approach was applied in this research. It was quantitative as well as qualitative in nature. The quantitative approach, characterized by the use of detailed questionnaires and statistical data analysis, aims to quantify variables and establish numerical relationships. On the other hand, the qualitative approach adds a nuanced dimension to research by delving into observations, reports, and interviews. It endorses an in-depth investigation of statistical and analytical data to explore the impact of COVID-19 on students' academic performance at BS Level: A case study of district Peshawar. Focus group discussions were conducted with students in the selected areas of district Peshawar. Secondary data was collected from the departments and the colleges concerned.

### Research Population

There are 15 public/private universities and 28 male and female government degree colleges in the district of Peshawar. For conducting the study, three universities and five government degree colleges, i.e., University of Peshawar (Faculty of Social Science), Sarhad University of Information and Technology (Education Department), City University of Science and Information Technology, Govt. Superior Science College, Govt. College of Peshawar, Govt. College of Technology Kohat Road Peshawar, Govt. Degree College for boys Hayatabad and F.G Degree College for Boys Peshawar Cantonment were selected.

### Sampling Procedure

Sample is the set of people or items which constitute part of a given population sampling. A random sampling technique was adopted to control and delimit the study. The questionnaire was generated for data collection. The sample size was 400 respondents out of a total of 21696 students who were selected from public and private sectors (colleges and universities) in district Peshawar, respectively. Due to the large size of the target population, the researcher used the Taro Yamani formula (1967) which is the most appropriate for this study.  $n = \frac{N}{1+N(e)^2}$

where:

n= required sample size

N= population, which is 21696

e= allowable error (%), which is 0.05%

Putting numbers in formula:  $n = \frac{21696}{1+21696(0.05)^2}$

n= 400

Hence the required sample size for the study was 400, according to the calculations of Yamane's formula.

### Instrument of Data Collection

Open and closed ended questionnaires were prepared and distributed amongst the students of BS classes. Moreover, interview was also conducted from the administration of Higher Education Department (KPK) and teachers and information was collected through focus group discussion.

### Data Analysis

The researcher conducted interviews and focus group discussions with officials and students concerned. While the evaluation material was collected from Higher Education Department, Khyber Pakhtunkhwa. The data were analyzed through tabulation, graphs which were shown by using Pi-chart to highlight the facts.

### Results and Discussion

This section shows the results of the data analyzed using Ordinal Regression Analysis. There were four main themes i.e. Academic Performance of the students, difficulties faced by the students during academic session, psychological assessment and adopted techniques in academic session during Covid-19 pandemic.

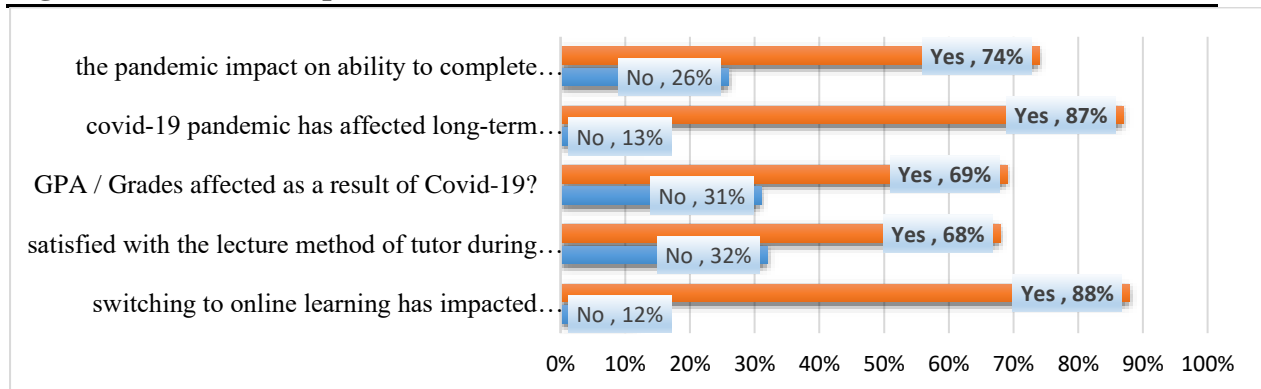
**Table 1: Gender of the respondent**

No. of Respondents	Male	%	Female	%
400	314	78.5	86	21.5

The data were received through questionnaire from 400 respondents out of 400 distributed questionnaires. All the questionnaires were received back to the scholar. Out of the received data, male respondents were 318 (79.5%) while 82 (20.5 %) were female.

### Academic Performance of the Students

**Figure 1: Pandemic impacts**

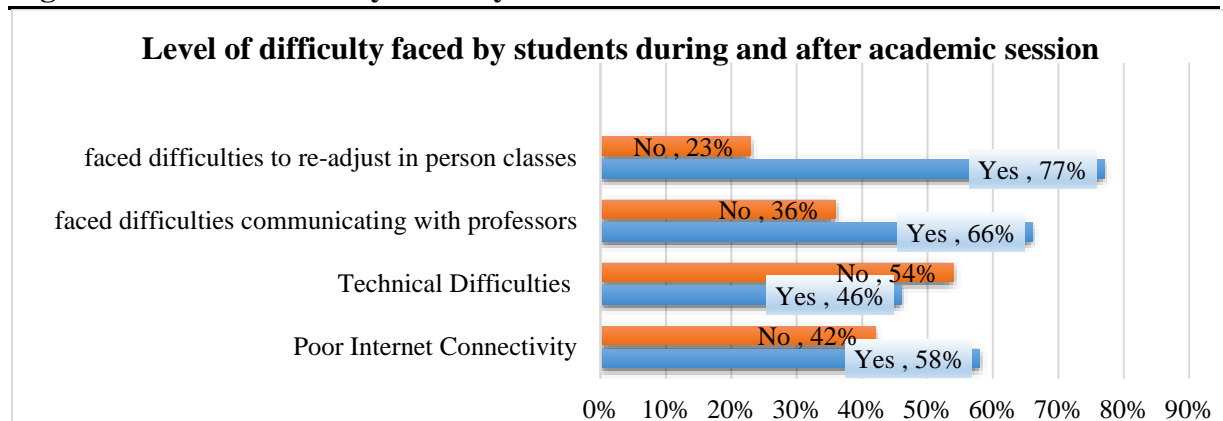


In response to the question that, "the pandemic impact on ability to complete assignments and coursework on time", out of 400 respondents, 296 (74%) responded that due to the pandemic, their ability to complete assignments and coursework was impacted, while 104 (26%) responded that their ability was not impacted to completing assignments and course work on time. On the question, "do you agree that covid-19 pandemic has affected your long-term academic goals and plans?" out of 400 respondents, the majority of the respondents, 348 (87%), responded that due to the pandemic their long-term academic goals and plans were affected with COVID-19 restrictions on travel, extracurricular activities, and internships. They perturbed students' ability to gain hands-on experience, build networks, or engage in activities that could consolidate their long-term academic goals. In response to the question, "has the pandemic affected GPA/grades?" the majority of the respondents, 276 (69%), responded that due to lack of inequities and disparities pandemic significantly affected their GPA/Grades. In comparison, 124(31%) responded that their GPA/grades were not affected as many educational institutions (CUSIT and SUIT) modified their virtual system to accommodate remote learning. They implemented pass/fail grading systems or adjusted grading scales to mitigate the impact of the pandemic on students' GPAs. Out of 400 respondents, 124(31%) responded that their GPA was not affected as a result of Covid-19. In response to the question, "were you satisfied with the lecture method of your tutor during online classes?" out of 400 respondents, the majority of the respondents, 272(68%), were not satisfied.

In contrast, 128(32%) responded that they were satisfied with the lecture method of the tutor during online classes. On the question of whether switching over to online learning impacts academic performance, out of 400 respondents, 351(87.75%) answered that yes, switching to online learning impacted their academic performance. An analysis of the above chart shows that the majority of the students strongly agreed that their academic performance was impacted by online learning.

### Level of difficulty faced by the students during and after academic session

**Figure 2: Level of difficulty faced by students**

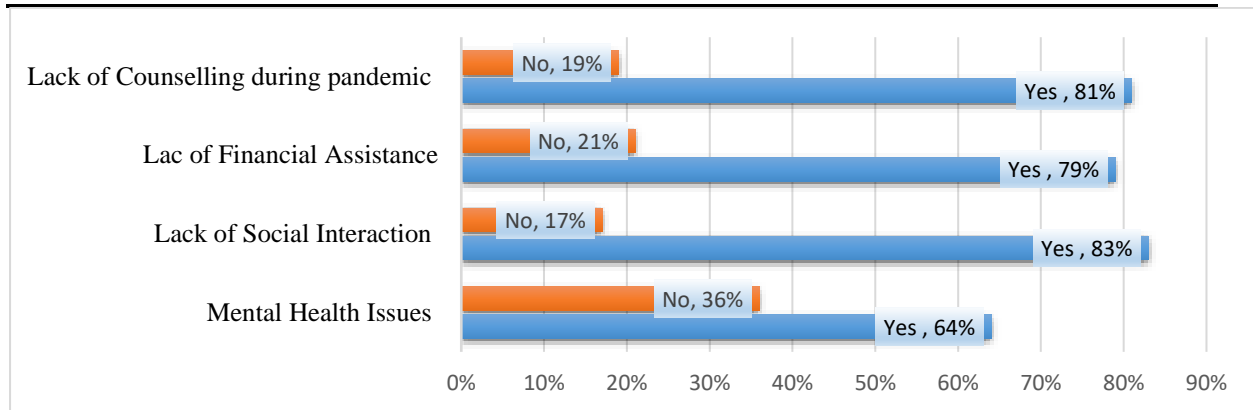


In response to the question “do you faced difficulties to re-adjust in person classes post covid-19?” out of 400 respondents, the majority of the respondents, 308 (77%), responded that they encountered difficulties stemming from a variety of factors, including the divergent learning environments between online and in-person settings. The familiarity of virtual platforms had established a comfort zone that was disrupted by the return to traditional classrooms, leading to a sense of disorientation. While, some respondents expressed a lack of enthusiasm and interest in resuming face-to-face studies. While 92 (23%) responded that they did not face difficulties re-adjust in-person classes.

In response to the question, “have you faced any difficulty in communication with professor or classmates since the outbreak of the pandemic?” the majority of the respondents, 264(66%), responded in the affirmative that they had faced several difficulties in communication with professors and classmates due to the shift to remote learning and the limitations it brought like equipment and limited opportunities for real-time discussion. In response to the question, “what kind of technical difficulties have you faced during online classes? Out of 400 respondents, 216(54%) responded that they faced difficulties resolving technical problems without immediate access to IT support, leading to frustration and disruptions in learning. While 184(44%) did not face such kind of technical difficulties. “Have you faced poor internet connectivity?” Out of 400 respondents, 232(58%) faced poor internet connectivity due to living in peripheral areas.

### Psychological assessment of the students during covid-19 pandemic

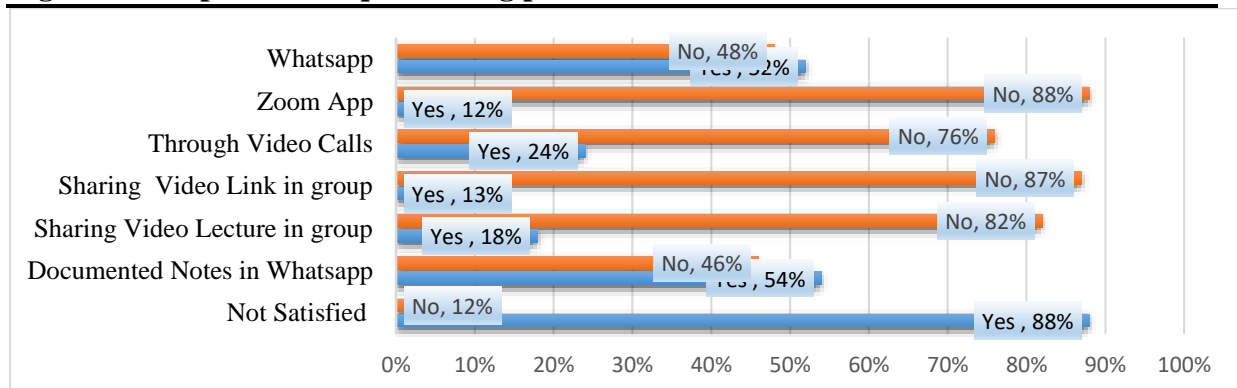
**Figure 3: Support services during pandemic**



In response to the questions that, “have you been able to access necessary support of services, such as counseling or tutoring, during the pandemic?” out of 400 respondents, the majority of the respondents 324(81%) responded that due to strict SOPs it was difficult to go out, for in-personal teaching and there was no social interaction, that’s why, they could not access to necessary support of counselling or tutoring during the pandemic. In response to the question “did you experience any mental health issue or financial issue that have impacted your ability to perform academically?” The majority of the respondents 316(79%) responded that they were looking for financial assistance to arranged resources for online classes, while 332(83%) responded that due to the lack of social interaction, lack of support from Teachers, and 256(64%) were agreed that due to the lack of in-person interaction they had faced mental health issues that impacted their ability to perform academically.

### Adopted techniques during online classes and students satisfaction

**Figure 4: Adopted techniques during pandemic**



The above graph shows an overall distribution of the respondents according to the method of delivering online lectures and their satisfaction: Out of 400 respondents, 208(58%) students responded that they used WhatsApp application for lectures during online classes. Out of 400 respondents, 48(12%) used Zoom Application, 96(24%) accessed their classes through video calls, 52 (13%) shared video links in the groups, and 34(8.5%) shared video lectures in the groups. Out of 400 students, 216(54%) responded that they used just documented notes in WhatsApp groups.

In response to the question, "were you satisfied with online classes?" The above graph shows an overall distribution of the respondents according to their satisfaction with online classes, a majority of 356(89%) were not satisfied with online classes during the pandemic.

### **Interviews with the Administration of Higher Education Department KP**

In order to complement and supplement the questionnaire data, interviews were also conducted with prominent persons relating to Higher Education in Khyber Pakhtunkhwa. The analysis of interview data is being organized related to each of the research questions. For each question asked, themes were reported with evidence from the data collected. These interviews were conducted on a semi-structured basis, and responses were recorded in writing as well as audio devices.

When asked, "what strategies have you applied during onset of covid-19," the Ex-Director of Higher Education KPK (Mr Zahoor-ul-Haq), Deputy Director of Establishment (Mr Gohar) and Ex-Academic Director HED (Mr Dr Abdul Hadi), and Director IT KP (Prof. Dr Taza Gul) said that as soon as the Corona pandemic broke out, we directed to close all educational institutions in the province, so that the students may not be affected. The biggest challenge for us was how to continue academics. As it was the month of March when the classes had started, we had yet to do any planning before, for which a JMC level meeting was called in which online teaching was considered. Now, the problem was that most teachers and students needed computers or Android phones. But to save students time, we started training sessions in every college (Hadi, 2023). Further, they said that all educational institutions have rapidly shifted to online learning management systems (LMS) or other virtual learning platforms to deliver course materials, assignments, and assessments. Popular Google Meet, Google Drive and WhatsApp applications were preferred for use in online teaching. We suggested institutions utilize collaboration and communication tools to facilitate student interaction. Platforms like Google Meet, Zoom and Google Drive enabled students to communicate, share documents, collaborate on projects, and participate in virtual group discussions. However, many higher education institutions faced limitations in terms of technological infrastructure, including internet connectivity, time constraints and sudden transition. Insufficient funding or lack of preparedness for a sudden shift to online learning encumbered the provision of necessary facilities (Haq, 2023).

Further they said that the pandemic highlighted disparities in digital access among students also. Some students needed access to reliable internet connections, suitable devices or conducive learning environments at home. This lack of access hampered their ability to fully engage in online classes and access the provided facilities (Gohar, 2023).

### **Conclusion**

This study shows that students' academic performance at the BS Level is affected by various factors influenced by the learning environment. The study highlights the numerous factors that Covid-19 affected the student's academic performance. The study also highlights the way of understanding the masses towards the impact of covid-19 on students' academic performance. Further, the study seeks to determine: In what ways has covid-19 impacted students' academic performance at BS Level? The study reveals, that students during the pandemic experienced achievements as well as challenges. Due to the pandemic BS level students experienced negative impacts on their academic performance. Students experienced difficulties regarding their social-emotional state that impacted their academic achievements. However, on the whole, student experience during the covid-19 pandemic was negative.

### Recommendations

- It is to ensure that students have access to the necessary virtual technologies, including devices and reliable internet connectivity. Additionally, training sessions or tutorials need to be offered to help students navigate online platforms and tools effectively, ensuring that they can participate fully in virtual learning activities.
- It is recommended to offer online workshops, webinars, or virtual internships to help students enhance their skills and stay connected to their field of study. These opportunities can support their professional development and compensate for any limitations they may face in gaining practical experience during the pandemic.
- It was observed that abrupt and unplanned closure of the educational institutions inflicted heavy loss in the shape of learning, management, and future strategy. It is recommended to combat such challenges in future: (a) all stakeholders must be taken into confidence, (b) well-planned strategies to minimize the losses.

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