

## The Emerging Role of Technology Hinders Face by Students and Teachers in Learning Stress during COVID-19

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### *Abstract*

*Apart from several adverse effects of the pandemic, its effect of covid-19 on education has been good for students; students may need to adopt the new strategies of online learning through advanced technology to succeed in the education amid COVID-19 pandemic. Through the survey, the researchers analyzed the difficulties faced by teachers and students during online education. This paper also aimed to assess as well as evaluate access and usage of the online/digital education of students. The survey sample was with 150 students from two public and private universities of Islamabad, survey conducted through a designed questionnaire via Google sheet. Sharing pre-reading material with students, the video should be added in lectures, and understating unstable internet issues are proposed recommendations.*

**Keywords:** *Pandemic, COVID-19, Online Education, Impact, Strategies.*

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### **Introduction**

The impact of the pandemic COVID-19 can be seen in every sector around the world. This has harmed Pakistan's and the world's educational system. Apart from several bad effects of the Pandemic, its impact of COVID-19 on education has few good outcomes.

The usage of online technology has accelerated during the covid-19 pandemic. Education went from a complexed perspective to a sounding names mindset. Students and teachers alike were encouraged to become much more tech-savvy. A query could be directed at COVID-19. Is it feasible for such a big event-pandemic to have beneficial consequences on humanity in the final moment? And, while the response can be expressly stated, the ramifications will be disclosed in full with incoming. Examining real developments, therefore, it is clear that several of the COVID-19's impacted features can be improved or reinterpreted in the right direction. When discussing the positive effects of something like the pandemic, one of the first things that come to mind is the process of integration into the education sector. Education, as well as technology, is almost always interconnected, but The virus has brought the connection to a new level. Although it may appear that this was a forced move, it was the only option available at the time.

However, introducing new technologies further into coursework does not guarantee that teacher & student engagement will increase (i.e., the instructor will convey information more effectively and the students will fully comprehend it). With technological advances, both the teacher and the student have more possibilities, but should only be used effectively.

Distance learning is an introduction in and of itself. The term "remote learning" is now associated with words like "pandemic," "COVID-19," and "temporarily shut down," among others. Distance education was on the horizon, but it would need a huge push to make it a key element of education. Its efficiency, however, will not be recognized for some time. Digital media harms education.

Social networking harms students as well. For new generations, media has become addicting. Most of the students' time is spent on media platforms. They take attention away from their main objective. It prevents children from reading books and limits their thinking. Internet addiction is wreaking havoc on people's ability to communicate. It remained to be seen how much these activities are wholly harmful to social structure, although some software platforms can have a positive influence on employees' academic performance.

During COVID-19, several scholars contributed to the solutions of the reported problem that poor countries are facing. The most important issue in the world, though, was schooling. As just a result, several experts are striving to resolve the problem, which is now developing and developed countries deal with the coronavirus differently. Some academics debate China's official policies for addressing these issues. China launched an online teaching system to compensate for the education losses caused by the Coronavirus. Some wealthy countries, such as Germany, Italy, and the USA, have modeled their education policies after China's. Our research concentrates on Pakistan, which improved learning institutions impose a variety of ways to counteract the corona virus's loss of education. HEC, on the other hand, was unable to overcome the educational barrier throughout COVID-19. If the government or the HEC implements these new policies to improve the system in rural areas, they will face the following issue. Internet-enabled gadgets.

To prevent education loss, the governments or HEC should offer students using internet-connected devices with unlimited MBs or that are available free. If HEC pursues this plan, authorities will have to address the issue of broadband internet, which is lacking in most rural areas. As a result, for some of these rural populations, this technique is ineffective. If the govt or HEC uses telecommunications services to compensate for the loss of education, it is considered a telecommunications service. If the HEC wants to impose this policy and mandates all educational institutions and cable networks to broadcast video courses on television, they will have to address the issue of electricity, as most rural regions lack access to it. As a reason, in these remote areas, this policy is ineffectual, and the picture teaching even during covid-19 is identical.

Although 90 percent of higher education students were qualified to use a computer (10 percent were unable to use a laptop or the world wide web properly), Adnan and Anwar (2020) found that 99 percent of students believe that physically learning is essential for complete comprehension, and 50 percent of students believe that differentiated instruction is not possible through online teaching. Digital imbalances among students and faculty were highlighted abruptly due to the lack of internet availability in many places. The approach is less efficient due to insufficient prior training for both students and lecturers on the requirements of online learning (Oyedotun, 2020). Teachers, like students, have issues with online communication in addition to learning.

Poor broadband network, a lack of professional understanding and competence, a lack of cooperation in the classroom, and low attendance during online lectures were among the issues teachers experienced (Noor et al., 2020). Because education is 2 different processes including both education - learning, a lack of reaction from either side leads to inadequate education. Well with the aforementioned issues, both parties demonstrated their limitations. The internet lecture did not meet the norms of physical training, especially in medical school, where physical practical and lab work education is required. The issue became significant for the new admissions because they had no prior understanding of education and could not even understand the basics from an online course. On the other extreme, students with low effective communication communicate with the teacher more frequently on social media learning than on physical learning, which is interesting (Khan, 2021).

Several students were forced to work at home as a result of the online delivery system, where they could be exposed to multiple interruptions or other housekeeping concerns (Sutton, 2020); consequently, the majority of students found it tough to remain focused during the online education. Such learning issues may lead to unemployment for some of the COVID-19 students, considering they will be unable to compete with kids who have attended physical classes that include physical practical activities. As a result, there is a pressing need for time to figure out how to deal with this problem, as well as any other such bad circumstances that may arise in the future. Several students have always been resistant to change and refuse to adjust to the virtual classroom; as a result, they require motivation and particular aid to become acclimated to the LMS & learning approaches.

Many such students do not have laptops or laptops with access to powerful, as well as a good quality internet service or connection to the internet, which seem to be the minimum principles of an online class, especially in the developing countries where university students do not always have the university fee to pay, and thus students fall behind their virtual school mates. Another difficulty is that the majority of the students own cellphones but do not own laptop computers. Some students have also been found to have fairly expensive smartphones that can be used for several purposes but no computers, which makes learning difficult in a virtual classroom with a small screen. Furthermore, some students live in rural places with no or limited telecom networks, making it impossible for them to keep up with online classroom lessons.

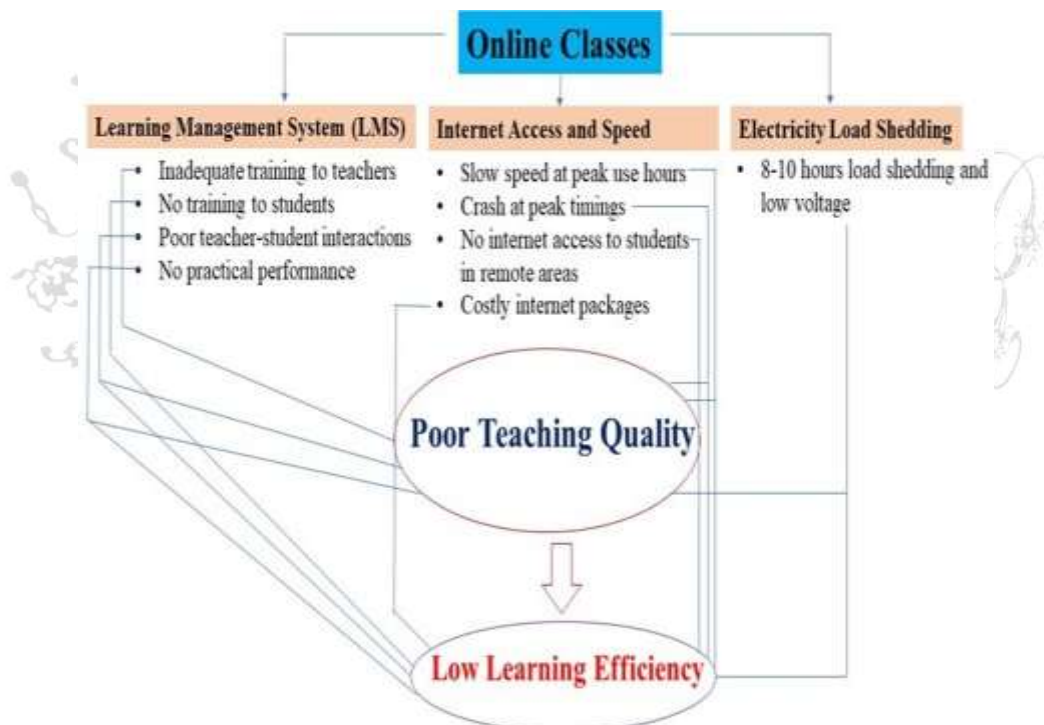


Figure No 1

**Problem Statement**

Since we face the pandemic, there are endless problems are being faced by the students as well as teachers. Some of the problems that have been found through a literature review the few researchers have done but we will discuss all problems of teachers and students during online classes. We will also investigate the upcoming problems in the future from omicron.

## Literature Review

Universities in Pakistan are planning to provide online learning. Students at the University Of Punjab can now participate in distance learning. Students can get teaching material as well as instructional videos from Punjab University. These are supplied via email or by downloading them to the appropriate programmers. This aids universities in avoiding compromising education in the event of a pandemic (The News, 2020). Apart from these, students can study remotely at different universities in Pakistan. HEC has asked LUMS as well as UET to assist other non-teaching institutions in setting up their internet presences. Other universities will be able to improve existing capacity with online help as a result of this.

Colleges confront a challenging problem in moving all physical courses to remote learning. To put it in another way, switching to online learning in a short period is too difficult. In a nation such as Pakistan, online learning is a significant change. In developed nations, technological advancements are less prevalent than in developing ones. A lesson plan, educational materials (containing sound/video), software installation, and technological help are all necessary for an online course. HEC assists higher education institutions with the delivery of online tutoring courses. HEC offers programmers and initiatives to help people increase their abilities (Academia, 2020). Faculty members as well as universities, meanwhile, continue to face significant difficulties.

As previously stated, faculty members encounter several difficulties. According to a prior researcher, students were eager to embrace change. That shift refers to the transition from conventional face-to-face learning to new learning methods (Fageeh, 2011). Furthermore, Pakistani students at higher educational levels have a favorable attitude toward eLearning (Rafiq, Hussain, & Abbas, 2020). They, however, lack the financial means to pursue online education. Furthermore, research shows that a key challenge in remote learning is a lack of IT infrastructure (Rafiq et al., 2020). Other key difficulties mentioned include faculty members' lack of IT skills and a lack of electronic gadgets (Rafiq et al., 2020).

In addition, in nations such as Pakistan, education availability was already a major concern. According to the report, roughly 50 million enrolled students in Pakistan are at risk owing to COVID-19 (Malik, 2020). Because of the inadequate Internet service, students are unable to undertake remote learning. Baluchistan, Khyber Pakhtunkhwa, and Gilgit-Baltistan, in particular, have limited Internet access. In addition, Pakistani institutions include computer labs with Internet access and equipment. Universities, on the other hand, find it difficult to give these services to students at their homes. Not only is Internet access difficult, but broadband service availability is also problematic, according to a recent survey. Students in Pakistan cannot afford these amenities (Malik, 2020).

Based on the debate thus far, it can be concluded that both students and faculty members are experiencing difficulties. For both teachers and students in Pakistan, online teaching and learning is a difficult challenge. The difficulties discussed above will be addressed in this study. Furthermore, the results of this research study will be used to develop successful teaching tactics for an improved electronic system. In Pakistan, these measures will aid online learning. This research will look into online teaching methods in this pandemic as well as upcoming difficulties with the online platform during the pandemic.

## Material and Methods

### Study Design

This is a cross sectionals observation survey conducted on the population of the undergraduate and Master's students in the different universities using an electronically disseminated survey.

## Survey

For the research, a survey was constructed. It was created using Google Forms and distributed to students from two public and private Pakistani universities via e-mail. After the winter exam session ended in January 2022, a poll was undertaken. It was available for 2 weeks or longer, with reminders sent after four and ten days, respectively. The remarks refer to the period during a lockdown and until the end of the academic semester and exam session, as mentioned in the questionnaires.

A team of four researchers designed the survey specifically for this study.

A focus group discussion was held to kick off the project. Then, based on the major research questions, a group of preliminary statements was created. The questions were narrowed further, divided into two groups, and a final number was determined by consensus. Name, university name, department, gender, age, year of study, place of residence, and living circumstances during the "lockdown" period were all covered in the first section on personal data.

COVID-19's impact on education was the subject of the second segment, which included five declarations. The third component included seven comments expressing thoughts and perceptions about the modifications made to learning and teaching during the pandemic, as well as the loss of schooling over the summer months. Finally, 15 statements about attitudes and views of online learning and teaching were used to evaluate the fourth section.

## Research objectives

1. To analyze the difficulties faced by teachers and students during the covid-19 lockdown.
2. To identify strategies for students dealing with encounters difficulties during online education.

## Research Questions

1. Which type of device is used to attend online classes?
2. Do Your Teachers handle your class entirely in the online Session?
3. What is the speed of the internet in your home?
4. Did your teacher voice clearly during the online class?
5. Did you submit the papers on time?
6. Did your paper get uploaded to the online class?
7. How many materials to get from the teacher?
8. Did your teacher cover the complete syllabus during online classes?
9. Online Classes are better than physical classes?

## Limitations

Student sampling was used in much academic research. There are major benefits to this, including easy access as well as low data collection costs. However, relying solely on student sampling has its drawbacks.

## Ethics

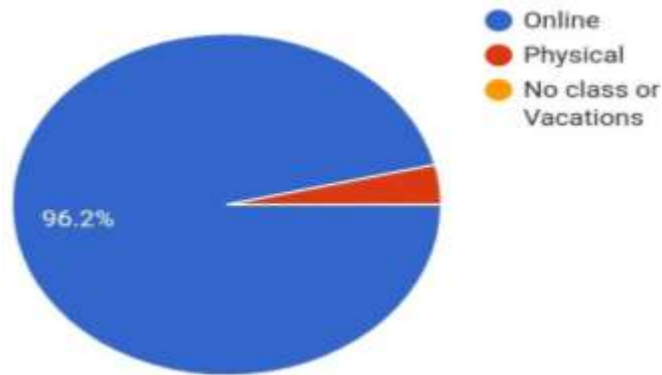
Online surveys in education research maintain five key ethics: informed consent; dual teacher/researcher roles; informed voluntary consent; use of incentives; privacy, anonymity, and confidentiality; and data quality.



## Result and Discussion

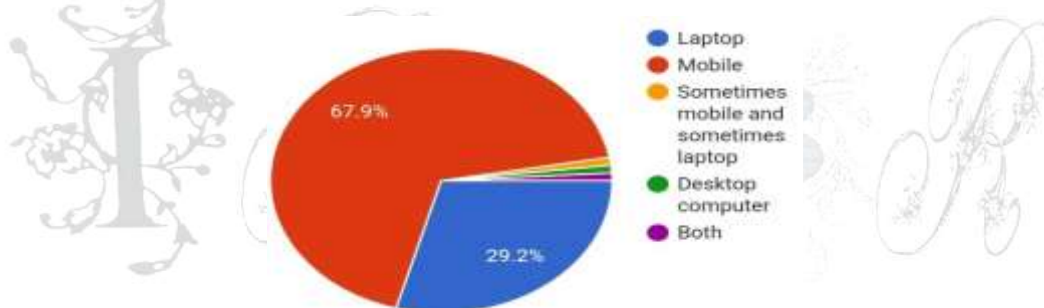
A total of 150 Students responded to this survey questions

During COVID your Classes were?



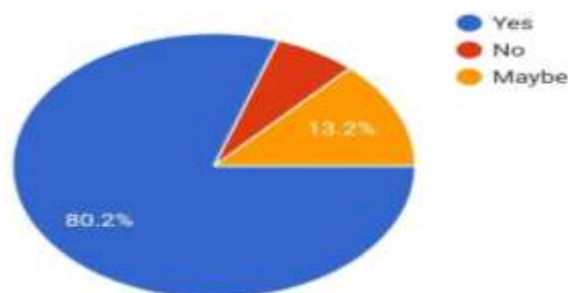
During covid 96.2% of Students' academic classes were online and 3.8% of Students' Academic classes were physical.

Which type of device is used to attend online classes?



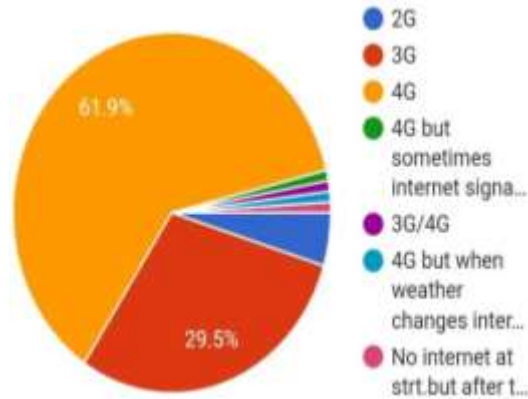
According to a survey, 67% of students use laptops for online classes and 29.2% used mobile. Other 3.8% use the Desktop computer, sometimes mobile and sometimes laptop.

Do Your Teachers handle your class entirely in the online Session?



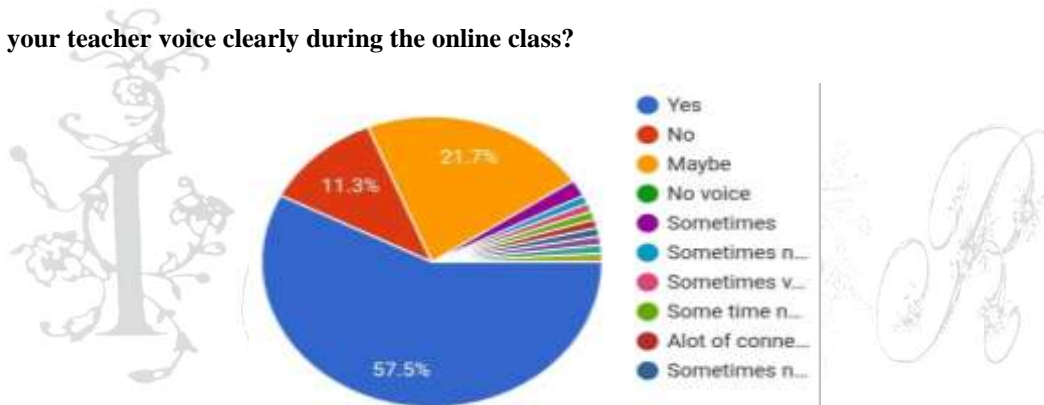
According to students, 80.2% of teachers can handle the online class and 13.2% of teachers cannot handle the online classes due to some reasons.

**What is the speed of the internet in your home?**



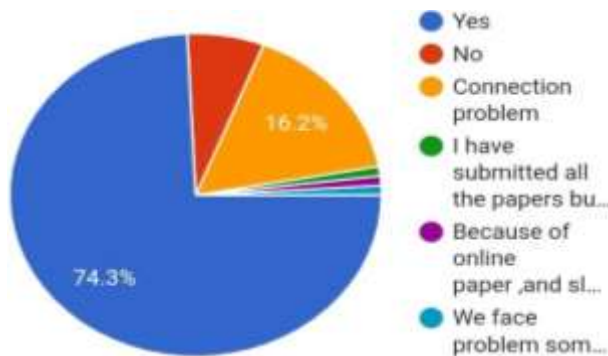
The speed of internet in students' homes when they attend online classes 61.9% students using 4G, 29.5% students using 3G, 8.6% students using 2G as well as facing others problems like weather issues and Internet interrupted problems.

**Did your teacher voice clearly during the online class?**



The teacher's voice during online classes was 57.5% clear, 11.3% voice not clear and 21.7% may be voted and the remaining 9.5% No voice, sometimes clear, sometimes not clear, the voice is clear sometimes connectivity issue from both sides, and sometimes no voice due to network issue.

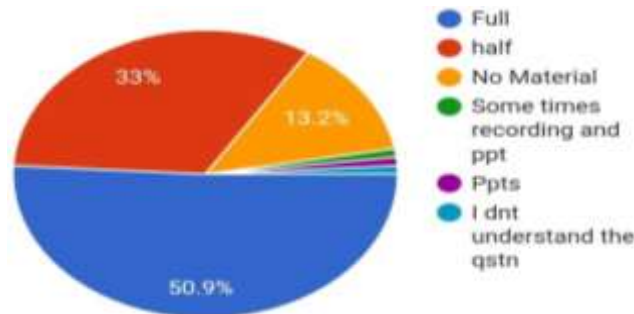
**Did your paper get uploaded to the online class?**



The papers submission of students;

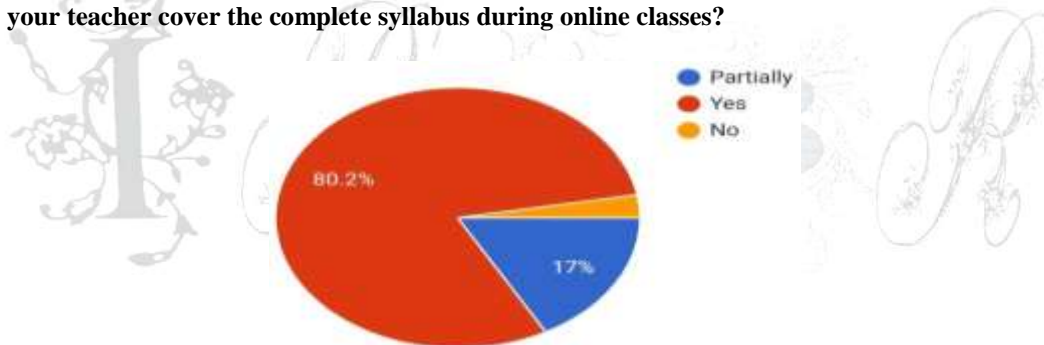
74.3% of students successfully papers submitted on time, 16.2% of students face connection issues, 8% of students not submitted on time, remaining 1.5% faced other problems like sometimes sent but sometimes facing online issues, one time not submitted and trying to submit on time but face connectivity issue arrived.

**How many materials to get from the teacher?**



Teachers provided full material during online classes to students is 50.9%, Teachers provide half materials is 33%, no materials 13%, and the remaining 2.9% teachers send sometimes recording and PPT.

**Did your teacher cover the complete syllabus during online classes?**



Syllabus;

80.2% of Teachers cover the complete Syllabus, 17% of teachers cover the half syllabus, and the remaining are not covered.

Through all of our observations, based on results, based on a survey, and based on research gap we give strategies. How we can improve the online or digital system for education and upcoming problems due to Omicron.

**Recommendation based on Result**

1. Video lectures and increased interaction between teachers and students.
2. In online classes, the teacher's voice problem is the main issue. Try to recover that.
3. By using the best application for taking exams and taking short online classes.
4. By adding some new activities to seek students' attention. As poor concentration is the main problem that I face during online classes.
5. There is no motive for online classes, I think there is no motive for creating eagerness for online



- classes.
6. There are factors such as (A) Students motivation (B)Active student participation (C)students must ask questions at the end of the class.
  7. For the current situation online is good but has a chance for a student to present their ideas. By conformation of students physically and mentally present during the session.
  8. By Giving Some activity during class to Students.
  9. Engaging students during class.
  10. Taking pre and post-test of every class is the only way to improve learning in an online class.
  11. By sharing PPTs because sometimes we can't access the internet.
  12. By cooperating.
  13. Online classes are better if we can't attend physical classes but electricity and connectivity issues are there. So, if there is an electricity problem teacher can cooperate with that student and provide a recording of lectures and also send assignments to students to check whether they have learned the lecture or not.
  14. By constant contact with students.
  15. Online classes can be improved by giving full material.
  16. Class participation can make it 100% percent successful.
  17. We can improve it by asking to give post assignments after every class to check the concentration of students regarding lectures.
  18. By giving internet to rural areas and also mobiles or laptops to poor students. Those are has no enough money to buy those sources.
  19. All materials are advised to management to upload before to get start the class.
  20. By providing notes and other materials to students.
  21. Switch in cameras.
  22. Taking courses online regularly & using some more advanced software that allows recording features for students as well.
  23. There should be more interactive teaching-learning strategies.
  24. By Training for teachers and students.
  25. Make available internet 1st in the whole country and then make an app which allows video of every student and blocks Mobile activities once an online class is joined to ensure attendance and focus of students
  26. We can improve online classes when teachers try to engage students in different activities and if teachers send pre-reading material it will be better.
  27. Facilitates the students by giving them the appropriate sources of internet.
  28. Videos should be added to lectures.
  29. Good Internet Connection, Proper Time Schedule, Timely Course Completion, Understanding the issues faced by the student.
  30. The material should be provided from time to time.

## Conclusion

This article outlined a variety of instructional strategies for the online education systems as well as future problems with the online system for the covid -19 pandemic. The above strategies can be implemented at all levels of education, from elementary schools to universities. These methods will aid in the effective delivery of online education. The research survey was based on an examination of online education in Pakistani colleges and universities. The paper suggests that can improve online education By Training for teachers and students, Making available strong internet 1st in the whole country, and then making an application which allows video of every student and blocks Mobile activities once the online class is joined to ensure attendance and focus of students, We can improve online classes when teachers try to engage students in different activities and if teachers send pre-reading material it will be better, Facilitates the students by giving the appropriate sources of internet, Videos should add in lectures, Good Internet Connection, Proper Time Schedule, Timely Course Completion, Understanding the issues faced by student

and Material should be provided time to time, etc. Furthermore, this study survey is a tool to assist schools and educational organizations in smoothly running online classes. This research focuses on developing countries such as Pakistan. It aids underdeveloped countries in creating and implementing online learning initiatives. This research could aid in a successful online teaching relocation during outbreaks such as COVID-19 and future omicron concerns.

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