



PIDE

COVID-19 BULLETIN

No. 14

HIGHER EDUCATION CHALLENGE FOR PAKISTAN UNDER COVID-19: THE WAY FORWARD

The COVID-19 pandemic has cast doubt on education of the masses at the primary, secondary and tertiary level. All schools, colleges and universities in Pakistan are shutdown. More than 124 countries have closed their educational institutions either at the country level or in some regions. No one knows how long it will take as COVID-19 pandemic challenge is unique, new and global in its nature. We have very limited information what will be the likely path of the pandemic. This has posed serious challenges for the leadership to decide for the future course of action.

COVID-19 has put us in a state when we do not know how to proceed, what resources will be available and what resources to allocate or what type of policies and processes our institutions should implement? According to UNESCO's COVID-19 Educational Disruption and Response, Pakistan has 46.8 million affected learners due to the COVID-19 pandemic, out of which 1.9 million are enrolled at the tertiary level. These pose the most serious challenge because universities have students from the whole country and even from overseas. All those having decision-making powers, including the education ministers at both federal and provincial levels, chairman HEC, vice chancellors and universities' administrators, must act prudently in this uncertain scenario.

COVID-19 Impact on Education	
Level	Numbers Affected
All Affected Learners	46,803,407
Pre-Primary	8,636,383
Primary	22,931,305
Secondary	13,357,618
Tertiary	1,878,107

Major Challenges in Delivering Online Education

Plans and strategies may fail but main test is not to compromise on goals and principles. Our education system must keep moving by taking care of the health and security of all (faculty, students and staff), and ensuring continuity of programmes by being flexible in finding and accepting new solutions. There are number of challenges in this regard where leadership has a key role to play in this time of crisis.

Internet Connectivity: One of the main challenges is of poor internet connectivity which is the main hindrance in online teaching particularly in remote areas. This is a challenge both for private and public sector universities. Public sector universities have

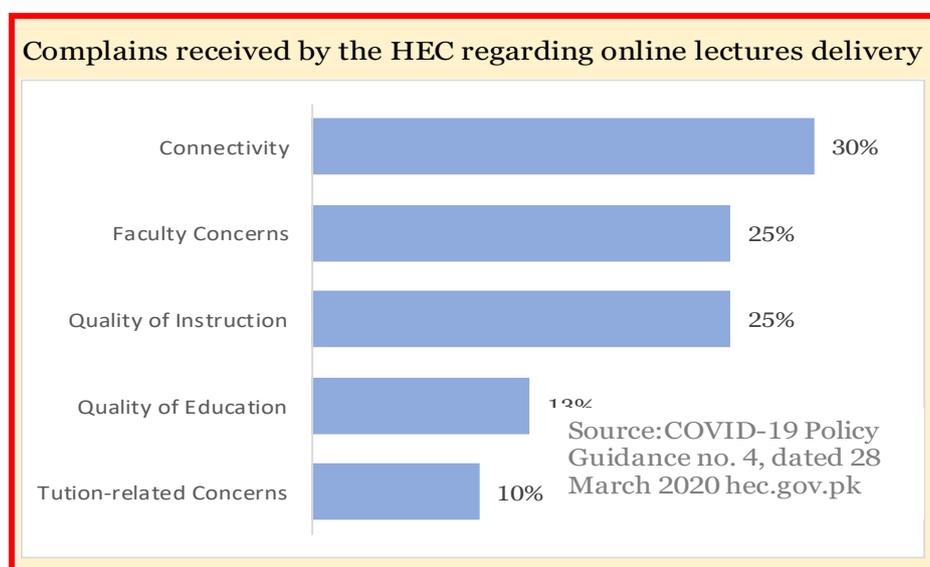
a more serious challenge than those of private sector as the former universities admit large number of students who belong mainly to lower middle-income families and remote areas. Most big city universities will have good connectivity but do all students when dispersed to villages have connectivity? Making online education accessible to all is a gigantic task for which national leadership must come forward and play a role.

On connectivity we must also think of network capacity. Mobile companies tell us that there is a huge increase in usage since the lockdown, leading to capacity. They are scrambling to expand network capacity. But this is an issue that we must bear in mind.

Faculty's Reluctance for Online Teaching: Preparing faculty for delivering lectures using these new means of communication is another challenge. It is time where leadership of the universities have a crucial role to play in motivating and encouraging their faculty to overcome all the hurdles in the way of online teaching.

All Subjects being Treated Similarly: There is a need to develop a separate policy for a group of subject(s) and not deal all the disciplines with same yardstick. HEC guidelines still indicate “one size fits all” policy. Four to five main subject categories should be made and dealt separately for teaching online courses. These broader categories are: i) arts and humanities; ii) social sciences; iii) natural sciences; iv) biological sciences; and v) engineering sciences.

The figure below is a good summary of the issues being faced regarding the online lectures being conducted right now. HEC received complaints where: 30% of the students raised issues regarding connectivity; 25% talked about faculty unpreparedness for online teaching; and 13% had a problem with low quality of education.



How to Make Things Work

1. This is the time to push for an increase in self-learning, which has been relatively scarce in our system. The concept on the inverted classroom has been gaining ground this century led by the innovation of the *Khan Academy*. In inverted-classroom teaching, all notes and lectures are available to students and they read before joining the class. During online classes, students should have their queries ready for the teacher, with the teacher responding to those queries instead of delivering

lectures. This is an ideal time to do this and achieve some distance in this much needed paradigm shift in our system

2. Group of experts for each subject should collaborate and explore all possible resources available freely online. Online resources include coursera.org, edx.org, YouTube lectures, MIT Open courseware, podcasts and many other such sources. Universities and professors should be encouraged to use these available online resources as much as possible for at least 3 reasons:
 - 2.1. It takes time to prepare good online lectures and making presentations over Zoom or Hangouts may not be very efficient.
 - 2.2. Connectivity and network capacity issues also require that people use good online resources available.
 - 2.3. Students with bad connections can access the available videos at their own convenience and if necessary, review them a number of times.
3. This is a time for collaborating across universities and disciplines as well as innovation. Universities should be encouraged to share notes, references and resources for distributing to students to allow more and more self-learning.
4. Perhaps online discussion with small groups using Microsoft, Zoom, Google Classroom and other forums should be explored for all those where connectivity is not an issue but with a good use of available online videos that can be the basis of learning. These resources should mostly be for online problem solving and discussion not mere reading out lecture notes.
5. Hybrid learning arrangements should be made. Online teaching should be complimented by at least one-month of mandatory condensed face-to-face teaching when the universities open. This hybrid approach will help to maintain a certain level of quality and students will be evaluated the way they have been trained so far. This is especially important for the lab-based disciplines which may suffer more through online teaching only.
6. Online learning companies are at a start-up stage but expanding rapidly. Universities should seek partnerships with them to see how better outcomes can be achieved. By this means innovative approaches could be found and effectiveness could be maximised.
7. There is a need to pool faculty and lab resources at the university level. Bilingual lectures should be recorded for each subject as understanding English through distance learning will be relatively difficult for many students. For example, if some teacher is good and willing to teach Object Oriented Programming, his/her course should be shared across other universities. These recorded lectures may even be posted/distributed through disks/CDs so that connectivity issue will not affect learning. It's a huge exercise and there is a need to make teams for each subject for various levels of programs.
8. Using TV channels for imparting education where it is possible should be explored. Virtual University and AIOU services can be utilized. Likewise, FM radio channels can be used in regions where TV channels cannot be accessed. However, this is

a passive way of imparting education as feedback is hard to attain. This should be minimally used in collaboration with other means.

A regular weekly video conferencing among the HEC chairperson with provincial chairpersons of Higher Education Departments and vice Chancellors is a must. It will help to monitor and evaluate the effectiveness of mechanisms universities have adopted or going to adopt and help refine the method of imparting education during this time of crisis.

However as argued above, there is extreme heterogeneity in the pedagogic methods across disciplines. Hence, it may be more important to develop groups consisting of professors for similar disciplines to collaborate on innovating in their areas. The objective is clear. They can innovate on the methods of pedagogy on the lines suggested above. PIDE can be entrusted to lead in the area of public policy, and development and social sciences, while QAU taking the lead in natural sciences.

Collective wisdom and innovation can get us through, and as it is said, “we all can work, but together we win.”

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PIDE COVID-19 Bulletin is an initiative by the Institute in response to the current pandemic, which is bound to have serious consequences for the country, specifically for its economy. The Bulletin would carry research that would aid in an informed policymaking to tackle the issue.

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