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Feasibility Report
Learning Management System & Online Teaching
At the Times of COVID-19 Pandemic Emergency Lockdown

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Based on Survey Reported in Daily Newspapers
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The emergent breaking news of rapid growing reported cases of novel coronavirus has badly disrupted the academic atmosphere not only in the city of Karachi, but an impact is observed throughout the whole country indeed. With an abrupt shutdown until May 31st, both public and private academic institutions across the country are struggling with Plan-B i.e. adopting virtual medium and migrating to use remote collaborative tools. As universities throughout the world move their courses online to serve students remotely in the face of COVID-19 lockdowns. Teachers are rushing to modify their pedagogy and trying to incorporate digital teaching tools via best available Learning Management Systems (LMS). That means everything from enrolling students in online classes, delivering and recording lectures, and uploading course content to the LMS, to hosting real-time web conference sessions, to using asynchronous discussion tools, to incorporating interactive quizzes, preparing their score-board and more, all while fine-tuning instructional approaches to make the most of online delivery.

Causes:

1. **Students and parents are worried as students have been sitting idle at home since the shutdown began. They have nothing to do. They should be engaged in courses and assignment work.**
2. **Teachers are confused to adopt LMS, as officially model implementation has not been imposed. Although LMS is best option to establish academic activities in normal run remotely, it seems fully feasible, but officially will the engaging time of the teachers be compensated in lieu of time and remuneration at resumption in June 2020 or it will be duplicate over burden.**
3. **If LMS is not adapted then will extra classes be beneficial for Teachers and Students to be held in June 2020 after resumption? Even though extra classes seem to be a viable option for public universities, students are still worried to re-continue after long break of rhythm, and Teachers are worried to get over burdened.**

Issues Reported:

1. **Availability of Technology Infrastructure at all sides**
   (Campus, Teacher's Home-side, & Students' Home-side)
2. **Software Tools Capability & Network Adaptability**
   (Bandwidth, Size of Class and Connections, Streaming of Video & Audio, Synchronization, Content Sharing/Uploading space Limit and Class Expiry Dates)
3. **Faculty and Student Short-Training**
   To cope-up with the technical issues of connectivity or else at their own side.
4. **Class Conduct and Monitoring System by Campus Administrators**
   Time-Table, Schedule Clashes, Teacher presence at real time online, Student Attendance etc.
5. **Teacher's Remuneration Model per Class/Lecture**
   To be compensated by Campus Administration, to avoid overloading i.e. imposing to take classes on resumption in June again.
6. **Model Adaptation by Individuals or All Faculty Members as per parametric demand of the Courses nature e.g. Core Scientific (Physics/Chemistry/Mathematics) or Vocational**

Some known Tools:

1. **Big Blue Button – Virtual Class Room**
   Max 07 Classes could be created. 150 Students could be enrolled at a time. Video Conferencing Feature available, Video Recording for 14 days repository.
2. **Jitsi –** It is a collection of free and open-source multiplatform voice, videoconferencing and instant messaging applications for the web platform, Windows, Linux, Mac OS X and Android.
3. **Apache OpenMeetings –** OpenMeetings is software used for presenting, online training, web conferencing, collaborative whiteboard drawing and document editing, and user desktop sharing.
4. **GoToMeeting –** GoToMeeting is a web-hosted service created and marketed by LogMeIn. It is an online meeting, desktop sharing, and video conferencing software package that enables the user to meet with other computer users, customers, clients or colleagues via the Internet in real time.
5. **TeamViewer –** It is a proprietary software application for remote control, desktop sharing, online meetings, web conferencing and file transfer between computers.

In an attempt to learn and transit toward the contingency plans, a survey to observe such implementation in HEIs of the city is reported by a popular newspaper "The Express Tribune" today. According to that survey, some universities claimed they were all set to roll out course material virtually, most are still experimenting with online tools – casting a cloud of doubt over semester deadlines. Meanwhile, a growing number of public universities said that conducting online classes was not possible for them because of their weak IT infrastructure.

While many institutions have already started conducting online classes, others have not been able to do so despite making tall claims. Even in universities where virtual sessions have begun, students report that they have been facing technical issues.

At Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology (SZABIST), the administration claims their online infrastructure is ready to deliver online lectures. Varsity vice president said, "SZABIST has the required infrastructure to conduct online classes and, to that end, we have directed the deans and departmental chairs to go ahead with the plan so the academic session is not disrupted." However, students anonymously reported that no virtual classes have been carried out.

The Academic Leadership Team (ALT) at the Institute of Business Administration (IBA) Karachi also claimed that a system for delivering online lectures is underway, adding that the institution has also conducted training sessions for faculty. The ALT team added that IBA would relax the attendance policy, while midterm exams would not be conducted. Students at IBA, however, said that despite a notification, not all the teachers have started delivering lectures online. Some students have also reported technical issues with the arrangement. "My university has started online classes via Microsoft Team but we are facing several problems," a student from IBA said. "The video quality is poor, the voice is sometimes inaudible, the screen lags due to which students are unable to keep up with the instructor, and high traffic causes the website to freeze. Moreover, asking questions is a hassle as many students raise questions simultaneously and voice quality is disrupted." Commenting on the issue, a faculty member at IBA, who also preferred to stay anonymous, said that even though instructions had been laid out for faculty members to conduct online classes, there is still a lot of confusion among teachers.

A member of the faculty at Habib University, meanwhile, mentioned that the university has explored a wide range of online tools to prepare for the recent extension. "Our university has already commenced online sessions through Microsoft Team and this system has been uniformly adopted across the campus," one student from Habib University, who chose not to be named, confirmed. "So far, everything has been going on smoothly and we have not faced any problems."

Iqra University vice-chancellor said, "We had already been preparing for virtual or online classes before this situation occurred, hence, the faculty at Iqra University is already trained to deliver lectures online." A faculty member at Iqra University also established that all preparations have been done to deliver lectures virtually. "We will fulfil our promise and complete credit hours for all the courses by conducting makeup classes and will complete the semester per schedule."

While the IBA and other private institutions have decided to go ahead with online classes, several public sector varsities have ruled out the option, saying that it is impossible for them to carry out virtual classes due to high enrolment.

University of Karachi (KU) vice-chancellor stated that at the biggest varsity in Sindh, with nearly 45,000 students enrolled in both the morning and evening programmes across 54 departments and research centres, delivering online lectures was out of the question. "It is neither possible to conduct online classes for thousands of students of all the departments nor does the university have the IT infrastructure to support such an idea,". "When the varsity reopens, the government should allow us to keep the varsity open on weekends after the break so that extra classes are conducted for the timely completion of the academic session."

Meanwhile, the vice-chancellor of Jinnah Sindh Medical University – the second-biggest medical school in Karachi – shared that nearly 2,000 students were enrolled in their MBBS and BDS programmes combined. "The varsity lacks the infrastructure for conducting online classes. Moreover, taking such steps in the field of medical studies is also difficult because of the practicalities involved, due to which the academic session and examinations might be delayed," he said.

The vice-chancellor of the NED University of Engineering and Technology, said that the varsity had a vast student body with over 10,000 students. Hence, he maintained, it would be impossible for them to introduce a new system overnight and conduct online classes.