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"CHALLENGES AND OPPORTUNITIES OF ONLINE TEACHING LEARNING DURING COVID-19 PANDEMIC"

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ABSTRACT

The COVID-19 pandemic has successfully caused a global shutdown except for our education system which is still running through an online platform. The online T-L process creates a virtual classroom for students at home. Through this paper, we focus on understanding the pattern, and influence of online teaching and learning process. The online survey was conducted on the teachers and students to measure its impact. We explore the choices of the student for different aspects of the online class that will help us in creating a facilitative classroom. Major barriers that are observed during online learning in pandemic times are unpreparedness, designing and effectiveness of e-Learning content, internet connectivity, and many more. This impacted teachers in a great sense as they have now become increased technology users and integrate diverse pedagogies, more effective teaching strategies, better communication, and empathy with students. But at the same time, this online mode creates many challenges. Online T-L process is a new ray of hope for students too, whether it is accessibility of time and place, improving student's attendance, pacing option for creating a perfect learning environment, suited to the need of each student and improving student's technical skills. Findings show that majority of students preferred recorded live session with quiz in between or end of lecture. The need of hour is to make online learning Under the condition that the difficulties encountered during this epidemic are thoroughly studied and turned into opportunities, more durable and hybrid instructional activities will emerge.

Keywords: Virtual learning, Technology, COVID-19 pandemic, Online teaching and learning process, Pedagogy, hybrid instructional activities.

INTRODUCTION

With the advent of covid-19 pandemic, our education system got changed completely from face-to-face learning to virtual mode. During this tough time, our educators all across the country have stood up as true leaders and have swiftly unfolded alternative methods to avoid the destruction in teaching and learning process. As the education institutes face the global pandemic, online education becomes our savior and catches all the limelight for the digital transformation. Earlier the traditional face to face mode of teaching and learning was practiced where students and teachers are in direct contact with each other and education occurs in an institute called a school.

Online learning is "learning that takes place partially or entirely over the Internet" (U.S. Department of Education, 2010). Online education is the one where tutors and tutees are not in direct contact with each other but connected virtually i.e., through any software app or LMS. "Interactive learning online" is the name given to one form of online setting. ILO means "highly sophisticated, interactive online courses in which machine-guided instruction can substitute for some (though not usually all) traditional, face-to-face instruction" (Bowen, et al., 2014, p. 97). The different modes used for online teaching and learning process is through Zoom, MS teams, Google meet, Google classroom, MOOCS, SWAYAM, EDUSAT, etc.

MAJOR BARRIERS TO ONLINE LEARNING DURING COVID- 19

An extensive definition of being prepared to teach online is "the state of faculty preparation" (Martin et al., 2019). According to a study on online education, students expressed a variety of emotions, with the majority expressing worry about online learning, disappointment with graduation ceremonies, and the idea that online learning is distinct from traditional in-class learning (Unger & Meiran, 2020).

Both students and teachers face some problems giving online classes.

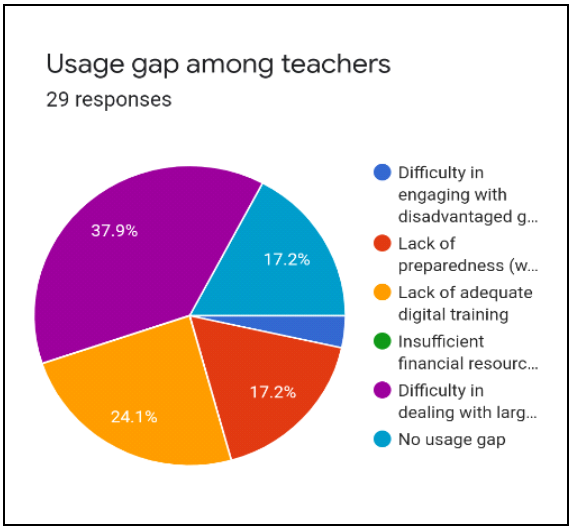
For students, bottlenecks in online learning are lack of connectivity, data limit, speed of data, a lack of face-to-face engagement, a demanding level of self-control, a terrible working atmosphere, and technophobia. According to a survey report, 67.5%

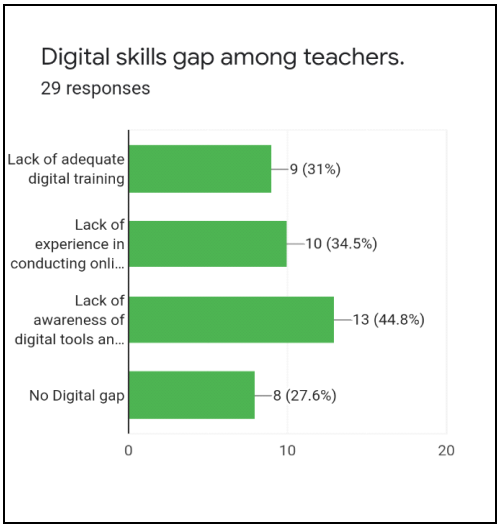
of students have little or no face-to-face interaction which means this is the main bottleneck in online learning.

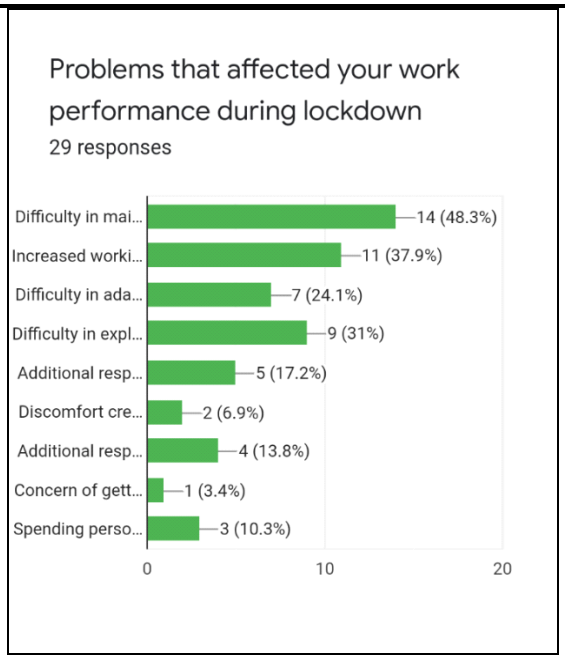
For teachers, increasing working hours and days, trouble adjusting the teaching level to diverse students' demands, difficulties keeping students' attention in online classrooms, topics are difficult to communicate without the use of a chalkboard, the extra duty of teaching kids how to use the internet and installing appropriate tool and mobiles software and to promote understanding of covid-19 and washing the hands among pupils and communities, discomfort created by the presence of parents, fear of being watched when using personal funds to boost student participation. Some teachers were not getting regular salaries during covid-19 and if some are getting then they were getting reduced salaries during covid-19 online teaching learning phase.

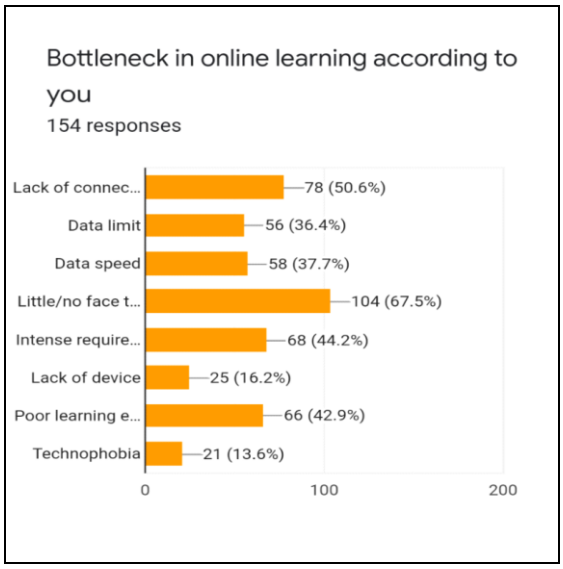
Digital skill gaps present among teachers like lack of adequate digital training, lack of experience in conducting online education, and lack of awareness of digital tools and software. According to the survey report, 44.8 % of teachers were not aware of digital tools and software, 34.5 % were having a lack of experience in conducting online education, 31% were not had adequate digital training and 27.6% of teachers were having no digital gap.

Usage gaps present among teachers like difficulty communicating with underprivileged students, lack of readiness (in terms of setting up infrastructures for online teaching and learning materials, such as a laptop, physical space, etc.), inadequate digital training, insufficient financial support for resource, difficulty in dealing with a large group of students. Among the above usage cat, 37.9 percent teachers have difficulty in dealing with large groups of students, 24.1 % of teachers lack adequate digital training, and 17.2% of teachers were not prepared regarding the provision of physical space, equipment, such as computers, and online educational resources and 17.2 % teachers were having no usage gap.









The data shown here are from the survey report conducted by me. The first bar graph is the responses of students whereas is 2nd bar graph is of teachers.

ADVANTAGES OF ONLINE LEARNING

Online learning is thought to be a successful technique in battling the increasing costs of higher education by distributing the expense of classes over a significantly less traditional location for teaching and learning (Tucker, 2007). The online environment, according to Angelova (2020), makes students feel like their job is easier for solo activities but not for collaborative projects. These stories demonstrate how learning and teaching online can be a useful substitute for traditional classroom settings while still allowing for the individual autonomy of speed and location for each learner Paudel, P. (2021).

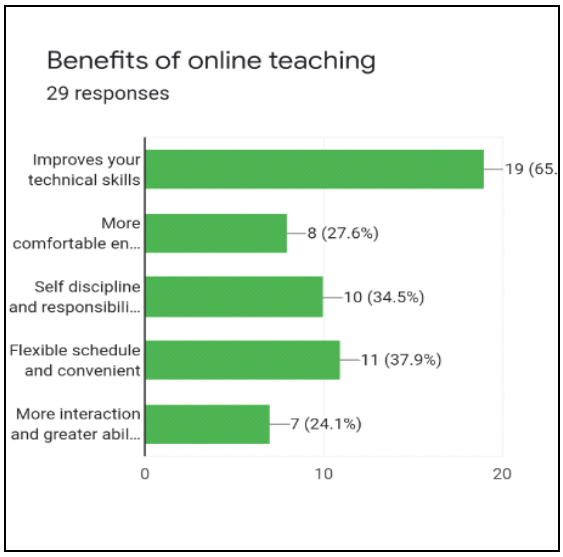
Online teaching learning improves teachers' technical skills, provides a more comfortable environment, provides more interactions and a greater ability to concentrate, it brings self-discipline and responsibility to students. By embracing the practical application of theory with the use of video chat programs and interaction, online learning lets teachers shift into this reel of continuous learning. According to the survey report, 65.5 % of teachers have improved their technical skills, 37.9 % of teachers consider online teaching a flexible schedule and convenient, 34.5 % of teachers become self-disciplined and responsible by using this online teaching mode, 27.6% of teachers feels that online teaching has more comfortable environment and 24.1 % teachers were able to concentrate and interact more in the online teaching-learning process.

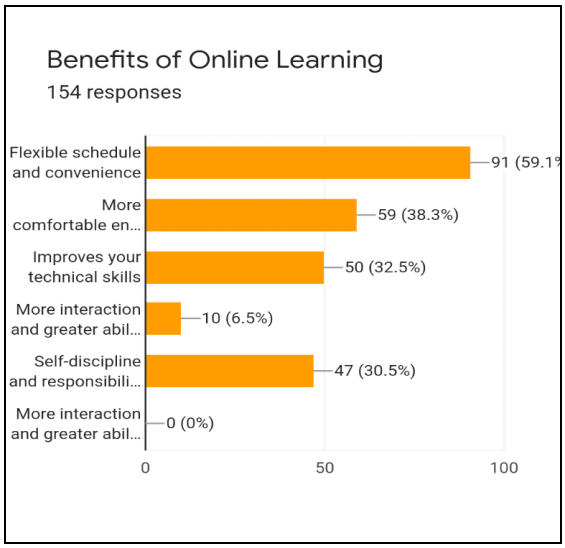
The question when asked students, it was found that 59.1% of students consider online classes as having flexible schedules and convenience, 38.3% having a more comfortable environment 32.5% of students improve their technical skills, 30.5% of students become self-disciplined and more responsible online learning and 6.5% students consider online learning as more interactive and greater ability to concentrate.

Online learning is indeed a remarkable technique to make up for the time spent monitoring students' progress and the lack of assistance with teaching materials. The practical advantages for teachers can be quantified in terms of decreased workload and time-based efforts. Hence, it provides the opportunity to educators so that they can focus their energies on pedagogical functionality rather than just writing on the blackboard and making question papers manually. A pre-existing or constantly developing question bank can be used by teachers to swiftly produce tests and quizzes using an LMS, for instance. The capability of tracking the completion of digital projects and the capacity to reuse or rebuild a course syllabus using a new course template is additional practical advantages.

Online teaching learning allows for easier communication for both teachers and students. For example, zoom in Google which session can be recorded to either be viewed or listened to again. If a teacher asks whether students have understood the topic so the students can reply with simple thumbs up or thumbs down in the chat box of the respective LMS. Therefore, online teaching and learning make the education system a bit simplified.

The two-bar shown here are from the survey report, the one with 154 responses are of students and the other one with 29 responses are of teachers.





IMPACT OF ONLINE TEACHING ON TEACHERS DURING THE COVID PERIOD

In July 2021 a survey was conducted through Google form which contain a questionnaire having close-ended questions, Likert scale questions, and one open-ended question targeting benefits, challenges, and overall strategies best suited to the online learning environment.

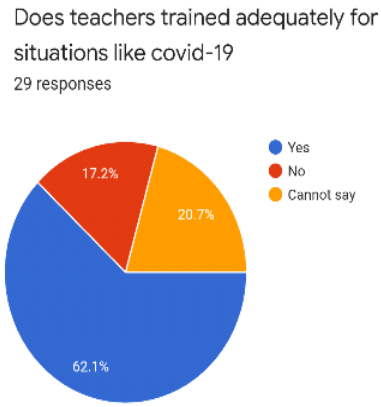
A total of 29 teachers responded out of 70, out of which 75.9 was female and 24.1 % were male. Most of the teachers that responded to the 40 to 50 age group (48.3%), 24.1 % were from 30 to 40 age group, 20.7 percent who are from 20 to 30 age group, and 6.9% were above 50 years of age.

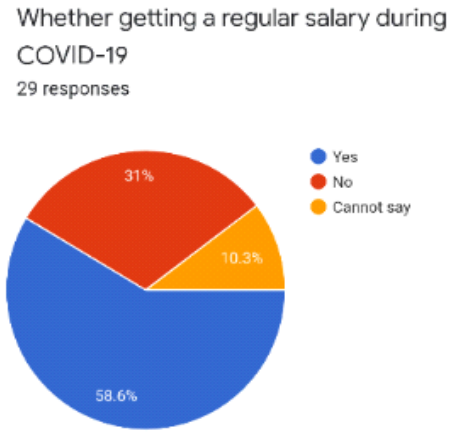
Among the responding teachers, 62.1 % were science teachers, 17.2 % were arts and humanities and 6.9% were teachers that belong to another academic discipline. 51.7 % of teachers were having online teaching experience.

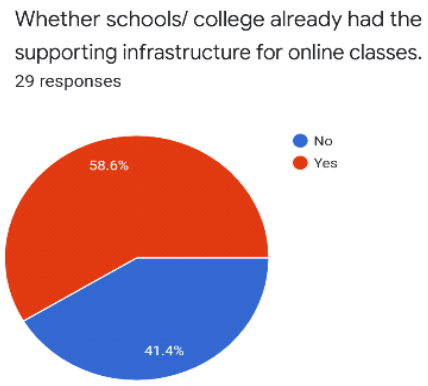
There are different learning management systems used nowadays for online classes. According to the survey report, 55.2 % of teachers use Google meet for online classes, 20.7 % of teachers use zoom as LMS, 13.8% use MS team, and the rest 10.3% use any other LMS.

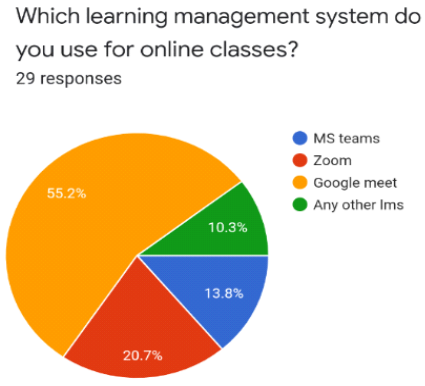
Teaching learning process efficiency depends upon the duration of interaction between pupil and teacher. Some teachers interact with the student on daily basis, some on weekly basis, some interact twice a week, some teachers interact for the need of students, while some teachers never interact with students their only focus is to teach. According to the survey report, 79.3 % of teachers interact with students daily on every working day, and 13of .8% teachers are interest which students as per the needs of students.

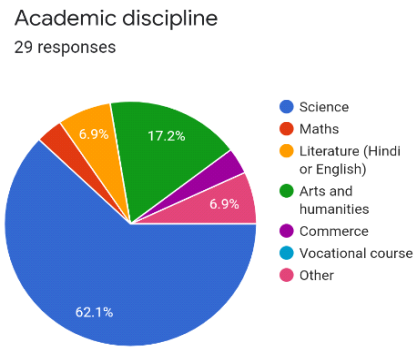
When a sudden lockdown has declared, teachers were not ready for online teaching-learning, maybe the reason could be a lack of infrastructure, lack of digital training, technophobia, etc. So, there was 62.1 % readiness of teachers for OTL (online teaching learning) wild 31% of teachers were inconsistent in readiness for OTL. 58.6 % of teachers already had supporting infrastructures for online classes in their schools or college. Some schools or colleges trained the teachers adequately for situations like a covid-19 pandemic. 62.1 % of teachers were trained adequately, 17.2 % of teachers were not trained and 20.7 person teachers cannot say whether teachers were trained adequately for this pandemic time.

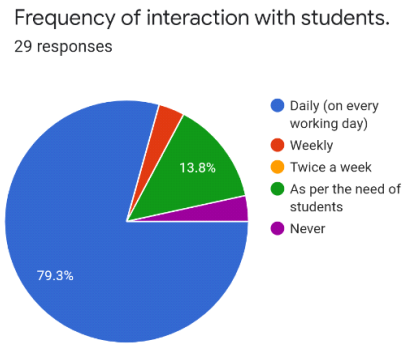


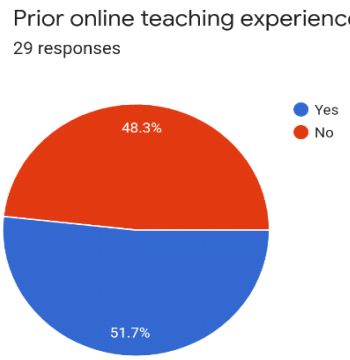


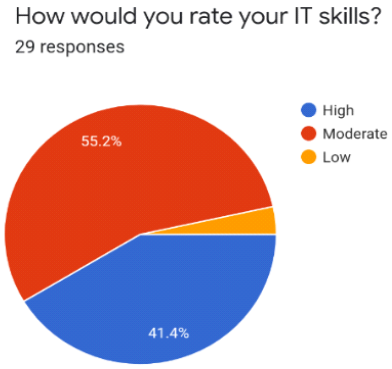


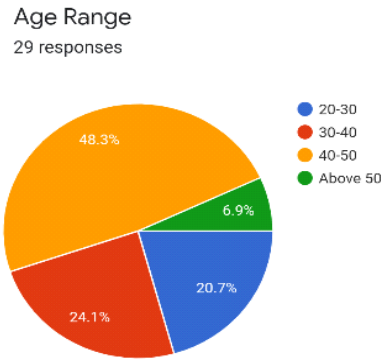




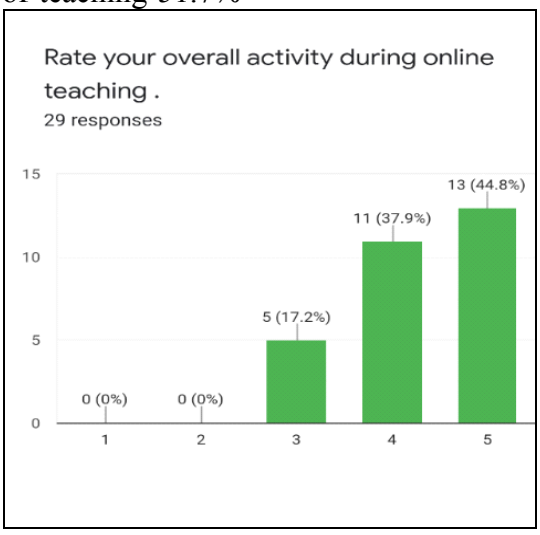


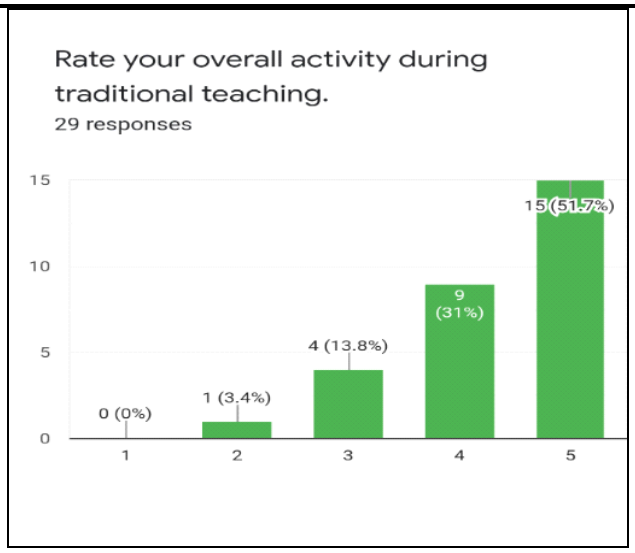


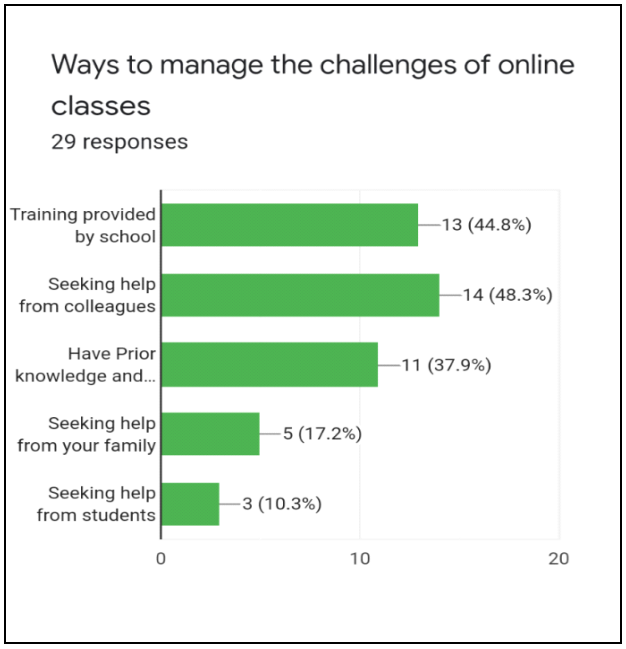


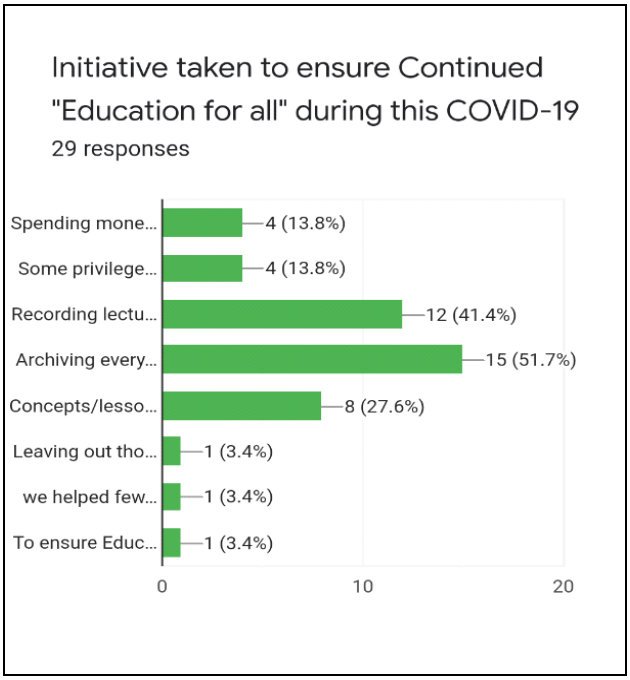


As compared to traditional teaching, teachers' overall activity during online teaching has been reduced. In the traditional mode of teaching 51.7% of teachers were highly active while 44.8 % of teachers were highly active during online teaching.




Rate your overall activity during traditional teaching.
29 responses
15
10
5
0
0 (0%)
1 (3.4%)
4 (13.8%)
9 (31%)
15 (51.7%)
1
2
3
4
5


Ways to manage the challenges of online classes
29 responses
Training provided by school
13 (44.8%)
Seeking help from colleagues
14 (48.3%)
Have Prior knowledge and...
11 (37.9%)
Seeking help from your family
5 (17.2%)
Seeking help from students
3 (10.3%)
0
10
20


Initiative taken to ensure Continued "Education for all" during this COVID-19
29 responses
Spending mone...
4 (13.8%)
Some privilege...
4 (13.8%)
Recording lectu...
12 (41.4%)
Archiving every...
15 (51.7%)
Concepts/lesso...
8 (27.6%)
Leaving out tho...
1 (3.4%)
we helped few...
1 (3.4%)
To ensure Educ...
1 (3.4%)
0
10
20

Different ways are used to manage the challenges of online classes. According to the respondents, 48.3% of teachers seek help from their colleagues, 44.8% of teachers were trained by schools, 37.9 person teachers have prior knowledge and, 17.2 % of teachers seek help from their families, 10.3% of teachers seek help from their students.

IMPACT OF ONLINE TEACHING ON STUDENTS DURING COVID PERIOD RESULTS

Among the 154 students, 108 (70.1%) were females and 46 (29.9%) were males. 70.8 percent of students had previously used online learning, compared to 29.2 percent who had never used it. The respondents were either students of an undergraduate course, postgraduate course, vocational course, or school students of classes 10th and 12th.

Students were asked about whether smartphones, laptops, computer, or tablets, and which device they preferred for online classes. According to the survey report, 51.3% of student's usage laptop or computers, 3.9% use a tablet while 44.8% of students use a smartphone for taking online classes.

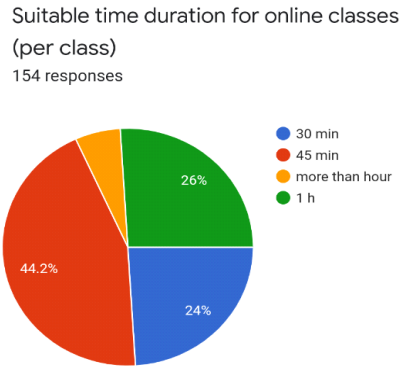
Students were asked about their source of internet, like Mobile data pack, Wi-Fi, or LAN. 64.9 % (100 in no.) students use Wi-Fi whereas 34.4 % (53 in no.) students use mobile data packs for their classes. 54.5%students teacher uses Google meet, 2.7 % uses MS teams, 3.9% uses Google classroom, and 14.3% uses Zoom for online teaching.

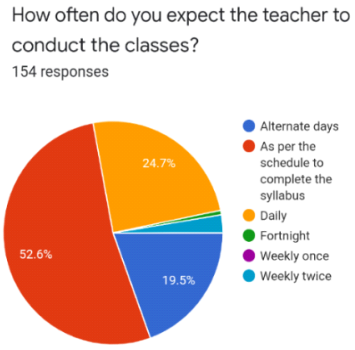
Then they were asked about their expectations of teacher that for how long she should conduct the online classes, so 52.6 % of students voted for as per the schedule to complete the syllabus, 24.7 percent wants daily online classes,19.5% bronze classes to be taken on alternate days, 2.6 % students want the classes to be taken weekly twice.

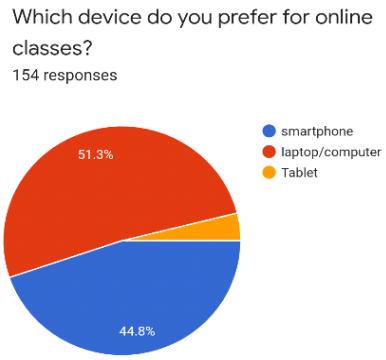
According to responding students, 44.2% voted for 45 minutes as the suitable time duration for an online class, 26% voted for 1 hour, 24% voted for 30 minutes and 5.8% voted for more than 1 hour.

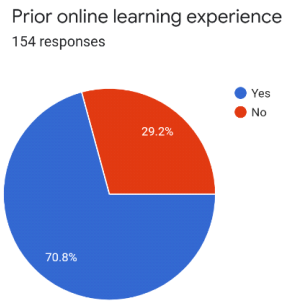
The format of online classes can be either live online classes, or live online classes that can be recorded for just sending reading material. According to the survey report, 65.6 % (100) students have live online classes, 0.6% have just reading material and 33.8 % (52) students were having live online classes that can be recorded.

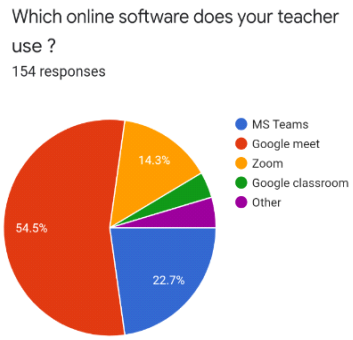
The time needed for a student is break between 2 online classes can be 20 minutes 10 minutes less than 10 minutes or more than 20 minutes. According to the survey report, 38.3 % need 10-minute, 33.8 % need 20 minutes break, 15.6% needs more than 20 minutes and 12.3 % needs less than 10 minutes.

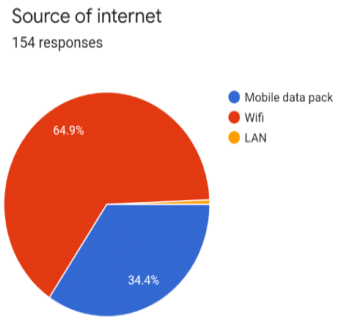




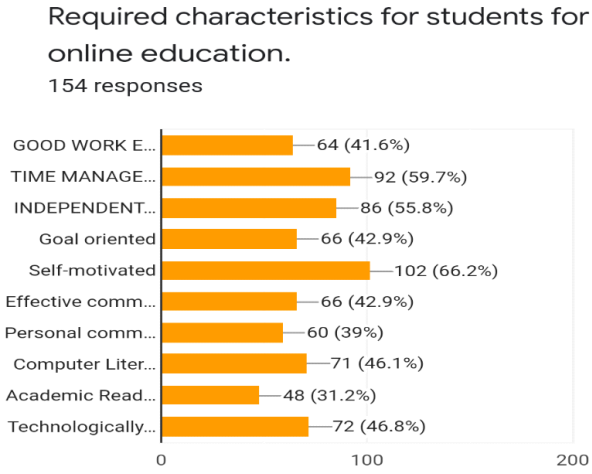








CHARACTERS FOR TEACHERS AND STUDENTS IN ONLINE LEARNING



Required characteristics for students in online learning are good management and work ethics, independence and responsibility, goal orientation, self-motivation, effective communication, personal commitments, computer literacy, academic readiness, and technology readiness. According to the survey report, when the respondents were asked about the required characteristics for students in online learning, 66.2 % of students voted for self-motivated, 59.7 % voted for time management, 55.8% voted for independent and responsible, 46.8 % voted for technologically prepared, 46.1 % voted for computer literate, 42.9 % voted for effective communication, 39% voted for personal commitment, 31.2% voted for academic readiness. Characteristics for teachers in online learning are our teacher should be patient she should be accessible, inspiring to students, certified . A teacher overseeing an online course needs to be at ease using the online LMS used by the school, in addition to having broad technological skills.

CONCLUSION

With efforts to safeguard the future of today's generation of student, the Contra of the education system is changing from the face-to-face traditional mode to online virtual classes. Online instruction and learning a powerful tool for both pupils and teachers. However, integrating online learning successfully into the curriculum necessitates a well-thought-out plan and a more proactive approach. According to the responders of the conducted study, some **suggestions** for the policymakers of course designers regarding online education practices are-

1. Policy should envisage student and their needs
2. Curriculum should be reviewed and updated in terms of AI and sustainability for climate change
3. Academic examination schedule should be student-friendly and should not create a burden on teachers as well as on parents (keeping in mind the pandemic situation online teaching)
4. Most importantly awareness regarding how to deal with the pandemic should be introduced

and taught in the curriculum through education policy.

5. As there is no monitoring system online so this is also the main problem. There should be a proper monitoring system in online education.
6. There should be proper content and methodology planning based on active learning and gamification techniques.
7. In remote areas online classes through YouTube, radio, pathshala, and Madhu app could not work properly, so some new techniques should be adopted by the government.
8. Blended approach to teaching should be used for future education policy.
9. They should give rigorous training and provide technical support.
10. More support and infrastructure are required to make online teaching a successful platform.
11. While designing online education policies, the policymakers should prioritize underprivileged students.
12. Some teachers suggest that teaching can be online but the exams assessment should be done only in offline mode.
13. More digital tools should be made to practice online education.
14. New digital platform should be made where practicals can be done smoothly.
15. IT sector must develop so that online education can come equal to offline mode.
16. Recording of practicals performed in regular teaching.
17. Policymakers or course designers should provide VPNs to underprivileged students.
18. Better tools to teach practical subjects are completely lacking. So, we need to develop better programs to animate practical exercises to improve understanding of the concept.

Online learning is efficient for expanding knowledge, and improving technical skills and is widely accepted in today's scenario. However, it's crucial to consider how online learning can be used to instill moral and social values in today's pupils in addition to simply expanding information.

Students can interact with the materials and get feedback as part of online learning that goes beyond content delivery. Online learning mode must involve a constructivist approach and try to follow blended or hybrid learning. Teachers must use different audio-visual aids and "gamification" so that online learning does not become monotonous and constant interaction will be made between teacher and student. Incorporating online learning into the curricula successfully necessitates a well-thought-out plan and a more proactive attitude. The need of the hour is to make online learning more sustainable and instructional activities become more hybrid provided the challenges experienced during this pandemic are well explored and transformed into opportunities. Consequently, this study will be beneficial for re-imagining and revamping schooling to include online learning elements.

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