A CRITICAL ANALYSIS OF WORK FROM HOME CHALLENGES DURING COVID-19 PANDEMIC BY THE STAKEHOLDERS IN EDUCATIONAL INSTITUTIONS

Authored
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Abstract

To prevent the COVID-19 pandemic spread Central Government started the lockdown and as such it affected whole nation and to major extent to higher education. The sudden closure of higher educational institutions resulted in not completion of syllabus, jeopardising the education and academic year. The disruption caused by the COVID -19 would be contained by social distancing, was initially planned, and because of the spurt of new cases impeded the immediate opening of the higher educational institutions for long time. Seriousness of COVID-19 is in fast spread through contact and having high death rate. The COVID-19 prompted the lockdown for whole of India from 24th march onwards; the higher educational Institutions had to continue with the imparting training to its students through digital platforms. The remote working or work from home was need of the hour, which the faculties from the higher educational institutions started utilizing digital platforms like Zoom, Microsoft teams, WebEx etc to continue with the training to complete the let over syllabus. The educational was more a classroom lecture-based but for few cases like MOOC, online certifications which students used to take at the comfort of their homes, more of recorded and text-based. The lecture-based was a norm for the academic session in the college environment. The present educational scenario is disrupted to a great extent by the COVID -19 pandemic, was forced by law for quarantine purpose. This study is to critically analyse the work from home challenges during COVID-19 pandemic by the stakeholders in Educational Institutions. The study had brought many pertinent challenges like internet connectivity issues 83 % even in the urban and semi-urban area stakeholders. The security issues of disruption during the Zoom did not hinder its overall popularity among the stakeholders due to its usability. The study highlighted that classroom based method most preferred when compared to the digital platforms during the COVID 19 platforms, maybe because the effective interactions.

Keywords:- COVID-19 pandemic, Digital platforms, Educational Institutions, Work from home.

Introduction

In India, we have higher educational institutions around are 993 Universities, 39931 Colleges and 10725 Stand Alone Institutions listed on AISHE web portal of HRD Ministry. As per the same report, the total enrolment in higher education been estimated to be 37.4 million with 19.2 million male and 18.2 million female. Also report states that for the 18-23 years of age group, we have noticed that Gross Enrolment Ratio (GER) in Higher education in India is 26.3. The report talks about that 16.3% of the colleges are having enrolment less than 100 and only 4 % Colleges have enrolment more than 3000. The college infrastructures housing 100+ students' higher educational institutions are 33143 approx. Usually, we have a perception that the educational institutions consist of best infrastructure like buildings, playground and canteen. It is buzzing with a large number of students from different walks of life mingling with fun and is in discussion regarding academics, other aspects etc. The classrooms are filled with students, sometimes sit cramped during the lecture. Many a time, faculties had to warn the students for sitting close and getting distracted for mobile etc. The canteen food was shared by all the students, without any inhibitions of cleaning hands amongst their friends. The educational was more a classroom lecture-based but for few cases like MOOC, online certifications which students used to take at the comfort of their homes, more of recorded and text-based. The lecture-based was a norm for the academic session in the college environment. The present educational scenario is disrupted to a great extent by the COVID -19 pandemic, was forced by law for quarantine purpose. The social distancing norms of government resulted in the closure of educational institutions to control the spread of the pandemic.

The impact of COVID-19 Pandemic

We have the history of pandemic raged with severity in the Indian Sub-continent. There was much death toll and physical hardship witnessed during the Plague, a bacteria-led pandemic (1896 to 1939) which caused 12 million deaths. In the 1918, Spanish Flu, caused by a virus, claimed 12 million lives in India within three months. India faced high death toll during famine, plague and Spanish flu, and people had experienced severe hardships. These hard times had been revisited because of present pandemic COVID-19. It started with Pneumonia of unknown cause detected in Wuhan, China which was first reported to the WHO Country Office in China on 31 December 2019. As per the National Health Mission, Government of India released booklet for –"role of frontline workers in prevention and management of Corona Virus" mentions COVID-19 is a disease caused by the "novel corona virus". Common symptoms are: fever, dry cough, breathing difficulty. Some patients also have aches and pains, nasal congestion, runny nose, sore throat or diarrhoea about 80% of confirmed cases recovers from the disease without any serious complications. As per the above report one out of every six people who gets COVID-19 can become seriously ill and develop difficulty in breathing and in more severe cases, infection can cause severe pneumonia and other complications which can be treated only at higher level facilities. In a few cases it may even cause death. As per WHO guidelines, COVID-19 spreads mainly by droplets produced as a result of coughing or sneezing of a COVID-19 infected person and   direct close contact. Further as per WHO, one can get the infection by being in close contact with COVID-19 patients (within one Metre of the infected person), especially if they do not cover their face when coughing or sneezing. Indirect contact: the droplets survive on surfaces and clothes for many days. To avoid transmission of the disease, it is advised by the doctors to abstain from touching any such infected surface or cloth and then touching one's mouth, nose or eyes. As per the WHO guidelines, the incubation period of COVID 19 (time between getting the infection and showing symptoms) is 1 to 14 days and few people who do not show any symptoms, are called Asymptomatic, but can also spread the disease.

As per the worldometer website dated 05-06-2020, 213 Countries and Territories around the world have reported a total of 6,721,612 confirmed cases of the corona virus COVID-19 and a death toll of 393,548 deaths. To prevent the COVID-19 pandemic spread Central Government started the lockdown and as such it affected whole nation and to major extent to higher education. The sudden closure of higher educational institutions resulted in not completion of syllabus, jeopardising the education and academic year. The disruption caused by the COVID -19 would be contained by social

distancing, was initially planned, and because of the spurt of new cases impeded the immediate opening of the higher educational institutions for long time. Seriousness of COVID-19 is in fast spread through contact and having high death rate. The COVID-19 prompted the lockdown for whole of India from 24th march onwards; the higher educational Institutions had to continue with the imparting training to its students through digital platforms. The remote working or work from home was need of the hour, which the faculties from the higher educational institutions started utilizing digital platforms like Zoom, Microsoft teams, WebEx etc to continue with the training to complete the let over syllabus.

The Concept of Work from Home (WFH)

The Work from Home is adopted well by the Informational technology Industry from 1975 onwards. As per 2017 Gallup poll reported that 43% of employed Americans had spent at least some time working remotely, and US Census data released in 2018 reported 5.2% of U.S. workers being based entirely at home. The Work from Home is also called as remote working or telework. Telecommuting (Nilles,1975) first used as working away from the conventional office and with help of Information Technology the work being done.

Remote work can be done from anywhere through mobile other than office (Kurland and Bailey, 1999; Pinsonneault and Boisvert, 1996). According to Bailey and Kurland's (2002) the job traits often identified included an employee's ability to control work pace and little need for face-to-face interaction. There research was conducted mostly in information technology-related corporations and government departments. One of the major reasons for telecommuting from home is greater flexibility in personal and family activities (Pinsonneault and Boisvert, 1996). Women are more likely than men to see family benefits as a reason for telework (Bailey and Kurland, 2002). Olson, and Primps, (1984) studied the claim that telecommuting has helped employees to balance work and family responsibilities, particularly among dual-career couples and McCloskey and Igbaria, (1998) telecommuting with small children. Some studies explored the role conflict between work and family can affect telecommuting outcomes (Duxbury, Higgins, and Neufeld, 1998). Gurstein, (1995) found that the intrusions from family, neighbours, and friends were reported as major problems with working at home. Hartman, Stoner, and Arora, (1991) studied the lowering satisfaction with telecommuting.

The digital platforms for WFH

The digital platforms play a major role in the success of work from home. The COVID-19 pandemic triggered the social distancing and in the educational institutions the classroom based lecture had to be replaced with the digital learning method. The digital platforms involve lot of challenges like the internet issues, hardware technical support of Mobile, PC or laptop. The digital platforms do have their limitations as such like the number of participants when they are not purchased. The following are the digital platforms used during the COVID-19 pandemic for Work from home all over the world.

SLNO	DIGITAL PLATFORM	SPECIFICATIONS	ISSUES
1	ZOOM	One-to-one chat sessions that can escalate into group calls, training sessions and webinars for internal and external audiences, and global video meetings with up to 1,000 participants and as many as 49 HD videos on-screen simultaneously. The free tier allows unlimited 1:1 meetings but limits group sessions to 40 minutes and 100 participants. Paid plans start at $15	Time Duration 40 minutes for free, security issues are many.

		per month per host and scale up to full-featured Business and Enterprise plans	
2	CISCO WEBEX MEETINGS	This is an American company that develops and sells web conferencing and videoconferencing applications. It was founded as WebEx in 1995 and taken over by Cisco Systems in 2007. Sign up on the Cisco Webex portal to get started with the Webex Meetings. Overall, the experience that's been offered by Cisco is nowhere limited when comparing with Zoom	In free version also all enterprise features including unlimited usage with no time restrictions, support for up to 100 participants, and a toll dial-in in addition to Voice-over-Internet-Protocol (VoIP) capabilities
3	SKYPE MEET	Microsoft recently brought Skype Meet Now that serves as an alternative to Zoom. It works without requiring an account and supports up to 50 participants — all for free. You'll also get features such as the ability to record calls; blur background before entering the call, and screen sharing.	Need to visit the dedicated webpage to begin with Skype Meet Now
4	MICROSOFT TEAMS	It is also available for free during the pandemic. The free version brings unlimited chat and search, group and one-on-one audio and video calling, and 10GB of team file storage along with 2GB of personal file storage per person	If an Office 365 account is present, then only real-time collaboration with Office apps for Web, including Word, Excel, PowerPoint, and OneNote is possible.
5	GOOGLE HANGOUTS	It is a decent, free alternative to zoom. video calls with up to 10 participants or chat with up to 150 participants at once. Google also lets host video calls or talk with the colleagues through text messages using a mobile device.	Gmail account is must for starting the Google hangouts. Paid can be able to increase the limit for video calls to up to 25 participants as well.
6	DISCORD	Discord has also emerged as a strong alternative to zoom, thanks to its video conferencing capabilities that let you connect with up to 50 participants at once. Just like other free alternatives to Zoom, Discord provides video conferencing at no cost. Sign up on the Discord site or through its app to get started with your virtual conferences.	The platform is popular amongst gamers, though you can use it as a tool to communicate with your office team or some friends

STAKEHOLDERS

The stakeholders involved in the higher educational institutions are follows:

A.STUDENTS

B. FACULTIES

C. MANAGEMENT

D. ADMINISTRATIVE PERSONNEL

Students

The students constitute main component of any higher educational institution, without them its very existence is at stake. The students from different backgrounds like rural, urban and semi-urban. The students irrespective of their gender differences have the common goal to complete their education and start their careers. The classroom lecture method gives the equal opportunity to interact with faculty concerned and can clear the doubts during the session. There was the peer group interaction because of proximity, more fun and learning take place among friends. The COVID-19 had not only disrupted that possibility of classroom session but the training during digital platforms had no close interaction from peer group is possible. The interaction with the faculty concerned who is delivering lecture is to some extent lesser compared to classroom. The mobile compatibility issues are the major component for any video streaming during the training session. The students with smart phones with 4G connectivity have an edge over the others lacking them. Now-a-days the students are exposed to operate the smart phones, with ease because of their more interest in exploring new games, apps etc. The training part to run the digital platforms is not much difficult to them, and these platforms are very user friendly. Only constraint their attention span during the training session, since there is always chance to work on other activities in the mobile or manually, if the video is off. The faculty will be constrained to know whether the student is actively involved in session or pretending, but in case of classroom, this easily get noticed.

Faculties

The faculties in higher educational institutions had to relearn the usage of mobile, laptop and PC to deliver the video based lectures. Usually, many of the trainers like to conduct in the classroom based sessions by body gestures and utilising the space around with their explanations by writing on the board or walking near the students for interaction. However, the digital platforms has the inherent disadvantage for any such moment, for the screen space, voice clarity etc. The trainer must have technical mechanisms to capture the board for writing during the session on the digital platforms. This was the class room session can be simulated even the digital streaming. The challenge is to have the right hardware, software tools and simulate the training session to perfection to classroom based lecture in Educational institution to enable the students to grasp the training content with ease. Another most important challenge in the digital platforms is that presence of scrutiny of the lecture delivery can be done by others like parents, relatives and friends of the student, who can also access the content. This may sometimes raise questions on the quality of content, delivery or tone of the faculty while interaction with the student, which is not possible in the classroom lecture.

Management

In usual educational institution, the monitoring part on the active presence of faculty and students can be easily done through walking around near the classroom or through CCTV by the concerned authority. The monitoring in case of digital platforms can be done as well with ease, to evaluate the quality of faculty and student interactions during the digital platforms by being part of online sessions or joining at random. There is no difficult to monitor the quality of the online training sessions, but it has become easier to part of the training session than in classroom based lecture to enter, which distracts the ongoing the faculty and students in more prominent way.

Administrative personnel

The Higher Educational institutions do require lot of administrative activities like handling queries for admissions, regarding fees, accounting services, and other miscellaneous aspects, wherein the staff has to be available. Class room, Seminar hall and other institutional infrastructure need to be maintained and arranged for the regular conduct of the training sessions. During the digital training through online because of the lockdown for COVID-19, had shifted the focus to work from home, but few activities like class room and other infrastructure maintenance and arrangement is not required.

But the counselling for new admissions, query handling etc can be done through telecalling. The financial transactions related to fee payment and salary disbursals can be done through NEFT etc.

Statement of the Problem

We have work from home in vogue from many years mostly prevalent in the IT sector. In the Educational domain the online certifications of MOOC, EDx, Coursera, distance education courses are also popular for past 15 years. The internet speed has paved a tremendous role in enhancing the online education in a big way. The technological upgradation in the spectrum from 2G to 4G during the past decade had impacted the ease of doing digital in work from home. Advent of the COVID-19 pandemic triggered the social distancing and subsequently highlighted the work from home in a big way. The educational institutions have got effected with the COVID-19, due to disruptions in the classroom lectures from second week of March 2020 in India. The faculties had to complete the remaining course content and students were left in middle of the session without any direct interaction due to social distancing because of Lockdown. There were lot of challenges faced during COVID-19 pandemic by the stakeholders in the educational Institutions. This study is conducted to identify the factors which influenced the Work from home and challenges faced by the various stakeholders in the educational institutions.

Objectives

1. To study the demographic profile of the educational institutional stakeholders participating in work from home during COVID-19 pandemic

2. To study the challenges faced during the work from home during COVID-19 pandemic by the educational institutions

3. To identify the devices and digital platforms utilised by the educational institutional stakeholders for WFH during COVID-19 pandemic

4. To compare the effectiveness of Classroom based lecture method with the digital online session for the students during the COVID-19 pandemic

Methodology

The questionnaire was distributed among the stakeholders particularly faculties and students through Google sheets. The respondents are basically from the Educational Institutions in two prominent colleges from two different metro cities – Chandigarh and Guwahati. The 5 Administrative personnel and 2 in Management officials were approached through direct telephonic interview to solicit the required information. The goggle survey was distributed to both the Educational Institutions which had around 220 students in pursuing the management courses and 37 management faculties. Among 68 respondents, the 10 faculties and 58 students had responded to the questionnaire .The responses received were 58 students (26%) from both the Educational Institutions and 10 faculties (27 %). For this study, T testing was used to find the effectiveness of the digital platforms used in the educational institutions and the classroom lecture method. This is basically done to find the impact of the challenges faced during COVID-19 pandemic by the stakeholders in educational institutions.

Data Analysis

 Out of 10 faculties responded, 3 (30%) in number are females and other 7(70%) are males. All are from urban background (90%) except one male faculty who is from semi-urban. The 90 % age group of the faculties are all within 31-40 categories except one faculty is from 41-50 age group categories. The respondents among the student stakeholders are 29 (50 %) females and 29 (50%) males. The 99.94 % age group category among the student stakeholders are 21-30, except 4(0.06%) in number are from less than 20 years. There are 11(19%) rural, 16(28%) semi-urban and 31(53%) urban students who have responded. Among the 10 faculties, during the work from home one had used mobile, 3 (30%) had used laptop and 60% remaining used mobile and laptop simultaneously. When it comes to 58 students, 3 (0.05%) students used laptop, 41(71%) students used mobiles exclusively for

WFH. Remaining 11 students (19%) are who used both mobile, laptops regularly for WFH. Interestingly 4 (0.06 %) students used mobile, PC and one student used Mobile, laptop and Tablet for WFH. When the question was asked whether the new purchase of any device for the stakeholders has been done for WFH, the faculties, Administrative personnel and Management officials responded no new purchase had done, but in the student category, 5 (0.08%) purchased mobiles and 1 (0.01%) laptop.
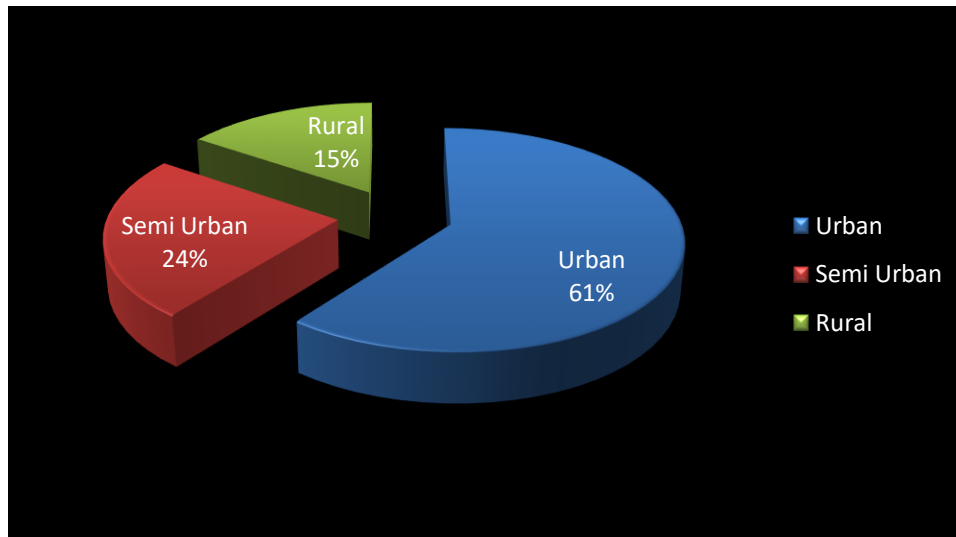

Figure 1.1 depicts that most of the respondents were from Urban Area 61%. There were 24% respondents were from Semi-urban area and 15% were from rural area. As per the survey, both the educational institutions are from metro cities. The maximum of respondents are from Urban area and semi-urban around 84 % are combined strength who are studying in the educational institutions. The expected network facility and availability of the devices like high end mobiles, PC and Laptop are satisfactory compared to the rural areas.
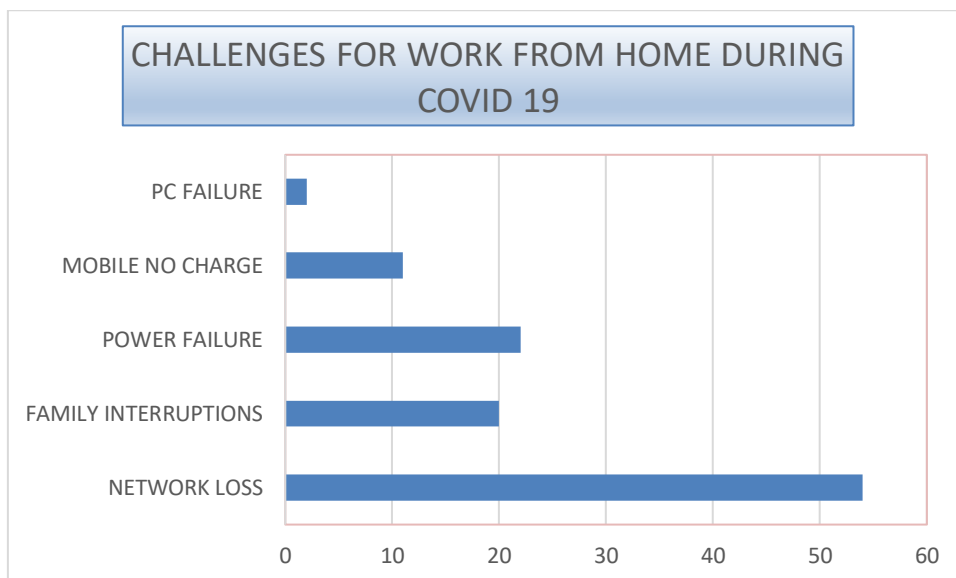

Figure 1.2 shows that access to internet connectivity as a challenge around 83% respondents believed that Internet connectivity is the major issue in COVID-19. As per the survey, even though maximum students around 84 % are from urban and Semi-urban category, the internet connectivity has become a big challenge.
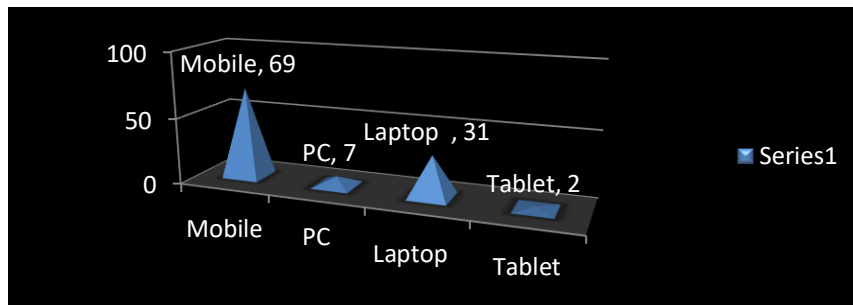
Figure 1.3 shows that major dependability for work from home during COVID is on Mobile phone 91.5%. After Mobile phone the next dependability is laptop 35.2%. The least dependability is on tablet 1.4%. The survey clearly states that the mobile device is used maximum in this work from home during COVID-19 pandemic.
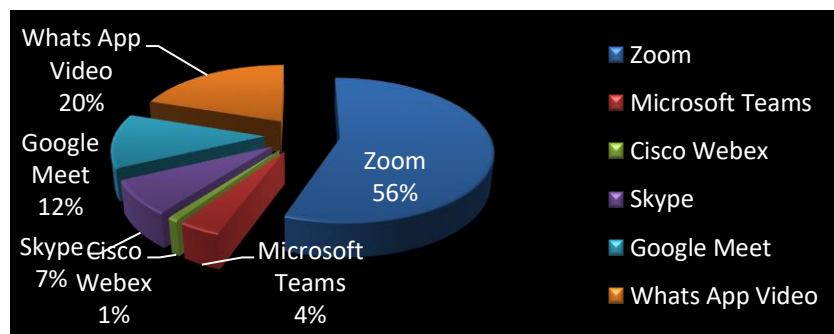

Figure 1.4 Shows that major dependability on media for teaching during Covid 19 is on Zoom Meetings 56%. After Zoom meetings the next dependability is whatsapp video 20%. The least dependability is on Cisco Webex 1 %. Even though, the challenge of security issues concerns on the Zoom meetings, it is used maximum 56% during this COVID-19 pandemic for the WFH in the educational institutions.

Pair	Mean (SD) for Class Room Teaching	Mean (SD) for Digital Media	Mean (SD) for Difference	T	Sig.
Class room and Digital Media	4.13	2.12	-2.01	-89.67	.000

 The Table depicts that Class room teaching is more effective than Digital Media teaching. There is significant difference in the Class room teaching and Digital Media Teaching. The classroom teaching has lot of flexibility and customisation during the lecture, whereas the digital platforms have their bottlenecks due to network issues, time limit constraints, and interactive sessions, the students and faculties found much challenges in the digital platforms as per the study.

Pair	Mean (SD) for Class Room Teaching	Mean (SD) for Digital Media	Mean (SD) for Difference	T	Sig.
Coordination for projects in Class room and Digital	4.65	2.62	-2.03	-85.47	.000

Media	

The Table depicts that coordination for projects in class room is more effective than Digital Media teaching. There is significant difference in the coordination for projects in class room and Digital Media Teaching.

Conclusion

The Digital technology used for Work from Home is improving tremendously. New technologies are being built indigenously are fast pace with the special impetus given by the Government of India, which had announced recently 1 crore rupees prize money for the Indian web technologies for the video conferencing etc. The intention behind this initiative of Government of India is to be self reliant and stop dependency on the foreign video conferencing web based technologies for the WFH. The challenges faced by all the stakeholders are on the connectivity issues. For successful conduct of any work from home whether it is online class, submission of any assignment or data, the internet connectivity is very much essential. As per the study, 83 % respondents had faced major challenge in successful WFH is because of Internet connectivity issues. The digital platform has the issues with coordination and many of the respondents had positive opinion of the classroom lecture. Regarding the projects or assignment handling, as per the study, the classroom method is better rated than the digital platforms by the stakeholders. There may be the reasons for training issues for conducting the classes, activities through digital platforms and the respondents' usually got accustomed with the classroom method. The COVID-19 pandemic had forced the stakeholders to quickly shift towards digital platforms but the effectiveness of it is still not significant when compared to the classroom method. The continuous usage may help the stakeholders to effectively overcome the challenges for work from home. Regarding the connectivity issues, Government has to work to speed up with special incentives to the telecom companies for having enhanced network reachable to all the stakeholders.

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