An Analytical Study Of The Status Of Using Video-Based Online Learning In India (With Special Reference To SVBOLT And AVBOLT)

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Academic Profile
Dr. Mayank Gaur is associated with Vardhman Mahaveer Open University, Kota, India. He has 16 years of professional experience in New Media and Education Technology and Indian National Television (Doordarshan). He has a PhD in Journalism and Mass Communication, an MA in Mass Communication, and a PG Diploma in Film and TV Production. His research work is focused on new media technology in the education sector, especially open and distance education. He has produced many video lectures for the learners.

Abstract
New Media technology is changing education patterns rapidly. Online learning became an essential part of Education after COVID-19. The research explored the status of video-based online learning, the effectiveness of SVBOLT (synchronous video-based online teaching and learning) and AVBOLT (asynchronous video-based online learning and teaching), and the barriers and solutions to those encountered during online video-based learning. 80 teachers and 160 students from India's different regions, like Rajasthan, Uttar Pradesh, and Haryana, participated in this study. The study was conducted on students of the 8th class and above standard. Teachers were selected who teach the students through offline and online modes. Samples were collected randomly from the questionnaire via online and offline modes. The result states that while learning with the SVBOLT platform, students have to face various problems. During live webcasts through various apps, there is a fixed study time and place that cannot be changed, if, during this time they face internet connectivity issues, students can suffer from the problems. AVBOLT reduces the obstacles that were faced in learning through SVBOLT. AVBOLT is an effective platform compared to SVBOLT. AVBOLT enhances the teaching and learning experience. Some aspects should be prioritized for effective online learning, such as Teachers should be trained for presentation in front of the camera and should have the necessary technical knowledge related to PPT (PowerPoint Presentation). AVBOLT provides error-free, quality content to learners. The use of this blended education method (online and offline learning) is a worthy step in the direction of making studies completely online with new technologies. However, the institutes and the schools will have to ensure that their content is technically and educationally sound.

Key Words: SVBOLTT (Synchronous Video-Based Online Learning and Teaching), AVBOLT (Asynchronous Video-Based Online Learning and Teaching), Online Learning, New Media Technology, Education Technology.

Introduction

The COVID-19 pandemic was a disaster for humans as health, economics, and education. During this pandemic, students and teachers are both affected. Face-to-face classroom education was shifted to an online virtual classroom. *To cope with this unforeseen and unusual situation, educational institutions resorted to "emergency remote teaching' to ensure continuity in the teaching and learning process (Santally, et al., 2021).* The whole education system has been started in virtual mode. Mobile phones, laptops, and tablets have become tools of education. Online learning is becoming a panacea for world education during the COVID pandemic. Many educational institutions have started to adopt online pedagogical approaches. It is a big challenge to go about using low-cost information and communication technologies (ICT) to harness innovative pedagogies and learning activities during and after post-COVID-19. An issue repeatedly highlighted has been the 'digital divide', which leads to digital exclusion for underserved populations who cannot afford technology and those living in remote areas where internet connectivity is still a problem (Bozkurt and Sharma 2020). During the COVID-19 pandemic, governments and education sectors have taken rapid action to change from traditional classroom learning to online platforms. However, these changes have put pressure on the budgets of educational institutions. Many developing countries have insufficient infrastructure, especially in rural areas, where households lack internet connectivity and the hardware needed for distance learning. The first COVID-19 case was detected on January 30, 2020 in India. The government declared a 'notified disaster' on March 14, 2020. A national lockdown to control the spread of COVID-19 infections was imposed from March 25 to March 31, 2020. During this lockdown, educational institutions (schools, universities, and training institutes) were closed across the country. Although introduced as an interim measure, educational institutions remained closed at the time of the survey, and this continued to impact the learning of an estimated 320 million students (UNESCO 2020). To decrease the impact of COVID-19 on education, the Ministry of Human Resources and

Development (MHRD) launched PM e-Vidya, a comprehensive digital campaign aimed at bringing together all online, digital, and on-air education.

Swayam Prabha, one class-one channel, provides content through 32 channels via direct-to-home (DTH) services throughout the country (Swayam Prabha 2020). Swayam Prabha also launched their website, which offers online courses integrated with different YouTube channels. With a focus on providing one channel per grade from Standard 1 to Standard 12, the aim is to reach stakeholders who have Internet access (MHRD 2020).

The lack of access to resources like physical devices such as computers, smartphones, and electricity restricts students in lower socioeconomic sectors from benefiting from online learning.

After this pandemic, almost all face-to-face traditional teaching was substituted through online teaching formats. This transition was accompanied by the awareness that simply moving pedagogy from one medium into another was not enough to ensure quality learning (Henriksen et al., 2020).

Teaching and social presence have been shown to improve learners retention by helping to condense the feelings of isolation that come with enrolling in online courses (Liu et al., 2009). Learners responses related to a university's web-based teacher education course demonstrated feelings of loneliness and isolation. Comments from students included “missing being in class with other students” as well as “I liked the convenience of the classroom but I felt like I was alone” (Dickey, 2004, p. 281). Online students begin to feel they are part of a learning community as instructors actively guide discourse (Shea 2006).

Most schools and universities have begun conducting online classes through various digital platforms such as Zoom, Google Meet, Microsoft Teams, Cisco WebEx, and others. Some private companies are now providing online learning platforms or LMS to offer things like coaching and interactive online classes through synchronous and asynchronous videos. Therefore, this study combines synchronous and asynchronous learning for both lecturers and students to be able to use LMS platforms effectively to improve the teaching and learning process, as well as to acquire better pedagogy, technology, and assessment tools (Alvi, Bilal, & Alvi, 2021).

Learning through LMS in live video productions by lecturers and uploaded pre-recorded video lectures in synchronous and asynchronous learning affect student-lecturer communications. There are three types of interaction in distance education: learner–content, learner–instructor, and learner-learner (Kuo, Walker, Schroder, & Belland, 2014), in which students improve knowledge with video lectures as the main method of content delivery and discussion with lecturers and peers on the LMS platform (Ferree et al., 2022). The Online tools have the potential to help students learn in groups or independently with their devices and include interactive learning tools for interaction (Ibrahim, Sunardi, & Isnaini, 2022).

Synchronous and Asynchronous are two distinct modes or platforms of e-learning that have been identified in various works (Obasa, Eludire, & Ajao, 2013).

The asynchronous platform is recognized as MOODLE, YouTube, and others, while the synchronous platform is examined on different live online platforms like all apps that provide live video sessions.

The synchronous video platforms provide real-time collaboration, just like in the traditional classroom, where the student and the teacher may interact with each other and get feedback immediately. Real-time communication and collaboration in a "same time-different place" mode is usually achieved with synchronous videos.

The main strengths of synchronous online learning are real-time interpersonal communication with normal language, and immediate feedback (Blau et al., 2017). Videoconferencing (Synchronous Platform) decreases the fluency of interaction and makes interactions slower and attention lower compared to traditional teaching (Rapanta et al., 2020).

It is more challenging that synchronous learning relates to the technical infrastructure that has to allow for participation in live remote settings at a sufficient quality (i.e., internet bandwidth) (Xie et al., 2018). Nieuwoudt (2020) found that it did not make a difference in student achievement whether they attended synchronous virtual classes or watched the recordings of the virtual classes.

Synchronous online learning happens live with no delay. Synchronous online learning is two-way learning in which participants can converse with each other in real-time. There are different types of synchronous online learning tools available on the market. Team, Goggle MEET, Zoom, WebEx, and other telecommunications platforms are providing their platforms to do synchronous online learning. Live online classes via video conferencing technology, open discussion sessions, webinars, and video calls may be provided via synchronous online learning (SOL).

Synchronous online video learning enables small groups of participants to interact and collaborate on their thoughts through audio, video, and screen-sharing technologies. It also provides the solution of interactive online classes where teachers and students can see and talk to each other in real-time. Synchronous online video learning creates an atmosphere of online learning with someone in another room, another building, or another country as if they were sitting on the other side of the table.

Asynchronous e-learning is the most widely adopted method for online education (Prasad & Lewis, 2008). Asynchronous online video learning provides a one-way interaction platform that can be received by an audience at their convenience. Asynchronous online video learning has a gap between sending a message and receiving a reply. Asynchronous online video learning also includes live streams and broadcasts that are

delivered in a one-to-many setting (think Facebook/ YouTube live streams) with a slight delay, just like a live television broadcast.
Asynchronous online video learning can be performed through email, on-demand video messages, pre-recorded video lessons and training videos, recorded video lectures, and one-to-many live streaming.
Asynchronous environments provide students with readily available material in the form of audio and video lectures, hand-outs, articles, and PowerPoint presentations (Perveen, 2016). Asynchronous online video learning offers a more flexible, but extremely rich medium for detailed video learning. It's often even more effective than live video communications simply because, like pre-recorded videos, they can be viewed at any time, from any location, and they can be searched for and watched again later. Asynchronous online video learning has the ability to support communicating, collaborating, and teaching through both pre-recorded videos and live video streams that include a video of the presenter, screen shares, and other video sources.

After the COVID-19 pandemic, educational institutions will have the opportunity to assimilate online teaching with their traditional pedagogy, which has proven its worth in that time.

Objectives of the Study

The main aim of the study is to find out the status of using video-based online learning in India, with special reference to SVBOLT and AVBOLT. The courses of steps to be followed are:

- To find out the status of online video learning platforms used by learners.
- To find out the effectiveness of synchronous and asynchronous online video learning.
- To find out the barriers and their solutions to online video learning.

Methodology

The study was focused on an analytical study to find out the use of online video learning in India. This research paper is conceptual and Exploratory in nature. In order to meet such objectives primary method is adopted. The primary data was collected through online and offline modes. A total of 240 students and teachers were considered samples for the study, coming from different regions of India like Rajasthan, Utter Pradesh, and Haryana. 80 teachers and 160 students participated in this study. The study was implied to students and teachers of 8th class and above standard. Teachers were selected who taught the students through offline and online both modes. The primary data was gathered through a questionnaire consisting of different items of related research. Items of the questionnaire were based on some topics like the status of online video learning platforms used by learners, the effectiveness of synchronous and asynchronous online video learning, and barriers and their solutions to online video learning. Purposive random sampling was used and samples were collected in online and offline mode. The Questionnaire was designed to conduct an analytical study to find out the status of online video learning in India after the COVID-19 Pandemic. It was structured into Part A and Part B. Part A was common for all participants, and Part B was only for teachers.

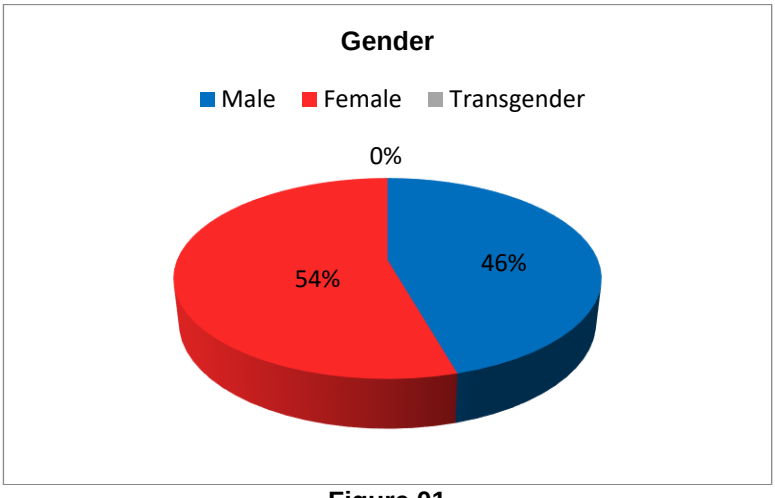

Figure 01

Figure 01 shows that 54% of males and 46% of females participated in this study.

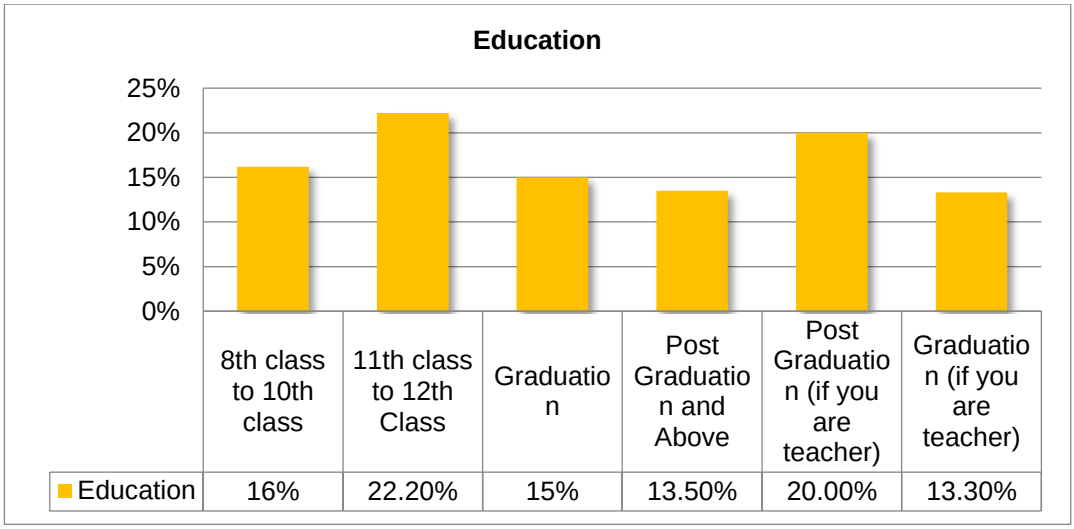

Figure 02

Figure 02 indicates that 16% of contestants were belonging to the 8th to 10th class. 22.20% of stakeholders related to the 11th to 12th standard. 15% of participants have a graduate degree. 13.50% of learners were postgraduates. 20% of participants were postgraduate teachers. 13.30% of contestants were graduate teachers.

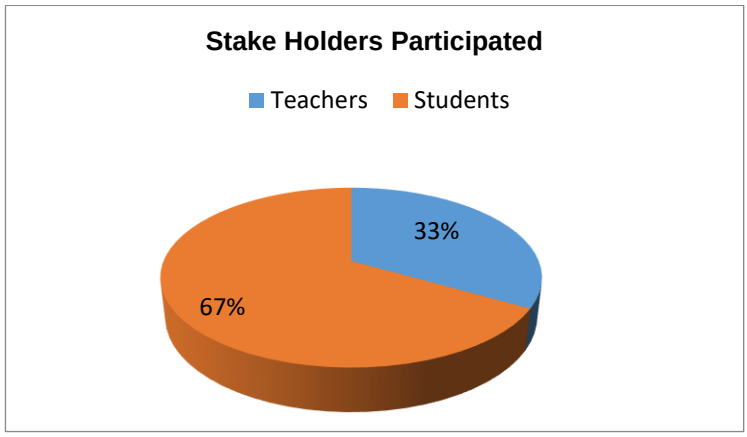

Figure 03

Figure 03 states that 67% of students and 33% of Teachers participated in this study.

Part A- It was designed for teachers and students both.

Item-01: Studying/teaching from online learning platforms

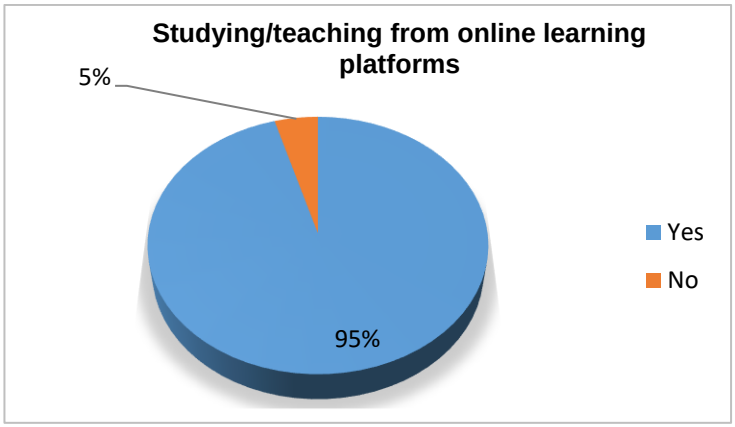

Chart 01 Studying/teaching from online learning platforms

Chart 01 show that 95% of participants were using an online learning platform for teaching and learning. During this time, 5% of participants were not conducting studies online. During the COVID-19 period, the majority of participants studied via online learning platforms.

Item-02: Platform/ App is being used mostly for online teaching/learning

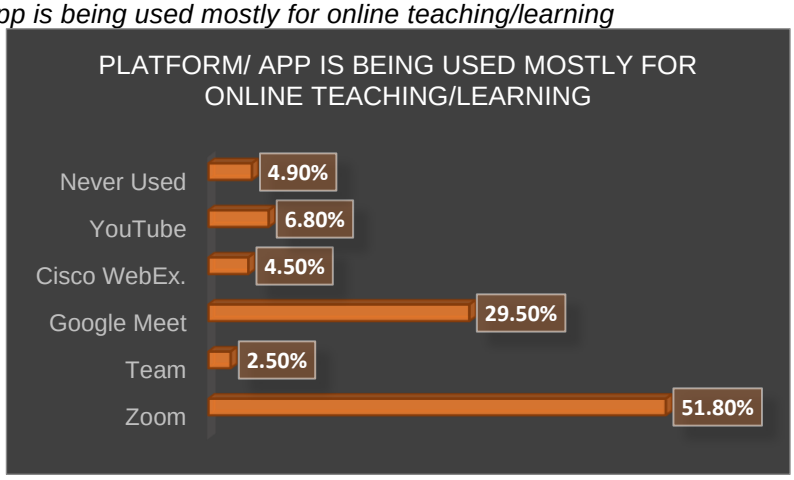

Chart 02 Platform/ App is being used mostly for online teaching/learning

Chart 02 shows the use of different online platforms by participants. 51.80% of students and teachers were doing studies on the Zoom online platform. 2.50% of stakeholders were using Microsoft Team for teaching and learning. 29.50% of participants were studying through the Google Meet platform. 4.50% of students and teachers were learning and teaching on Cisco WebEx. Platform. 6.80% of participants were studying via asynchronous video lectures on YouTube. Furthermore, 4.90% of stakeholders did not use any online platform for research.

Item-03: Knowledge about MOODLE (open-source learning platform)

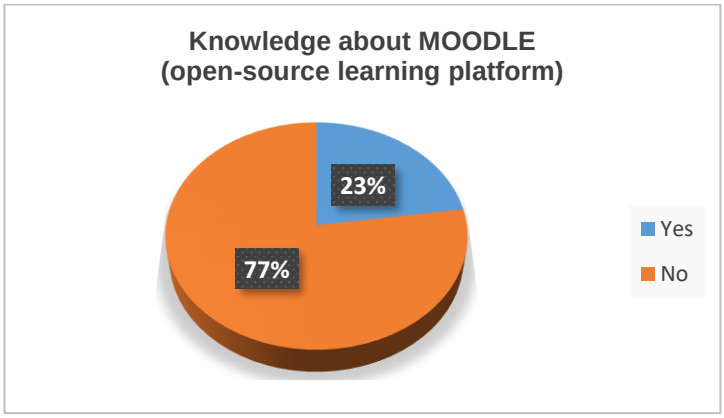

Chart 03 Knowledge about MOODLE (open-source learning platform)

Chart 03 presents the knowledge of the online MOODLE open source learning platform. Only 23% of participants had knowledge of the MOODLE Platform, and 77% of participants didn't know about this open source online learning platform.

Item-04: Using online video lecture learning/teaching pattern to study

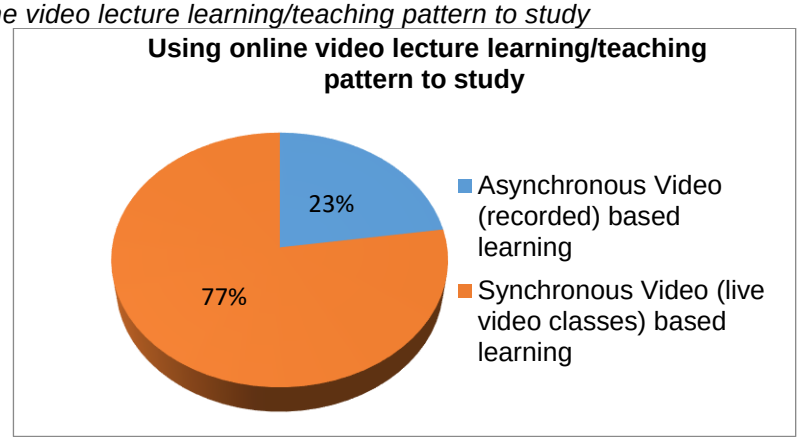

Chart 04 Using online video lecture learning/teaching patterns to study

According to chart 04, 23% of participants were studying via asynchronous video (recorded) learning pattern. 77% of teachers and learners were using synchronous video-based learning.

Item-05: Effectiveness of AVBOLT (Asynchronous Video-Based Online Learning and Teaching).

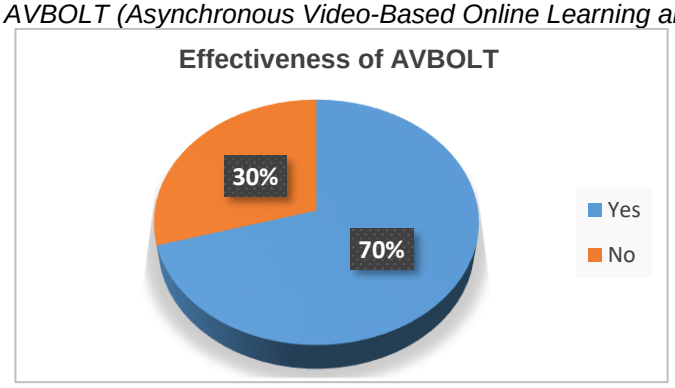

Chart 05 Effectiveness of AVBOLT (Asynchronous Video-Based Online Learning and Teaching)

Chart 05 shows the opinions of participants about the effectiveness of online asynchronous (recorded) video-based learning and teaching. 70% of stakeholders opined that online asynchronous video-based learning or teaching is effective. 30% of teachers and students said that it was not very effective.

Item-06: Satisfaction with AVBOLT (Asynchronous Video-Based Online Learning and Teaching).

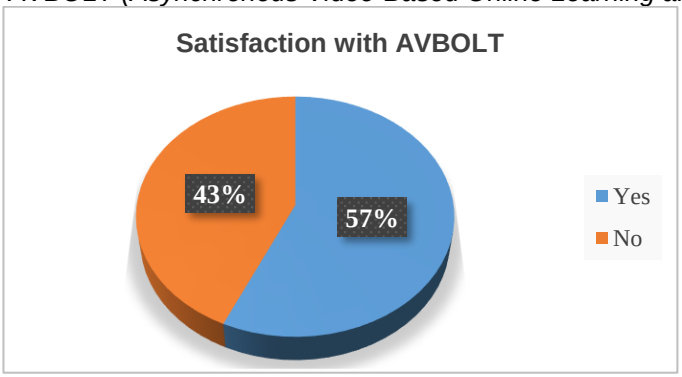

Chart 06 Satisfactions with AVBOLT (Asynchronous Video-Based Online Learning and Teaching)

Chart 06 shows participants' satisfaction for online Asynchronous (recorded) Video-based Learning and Teaching. 57% of participants were satisfied with online asynchronous (recorded) video-based learning and teaching. 43% of students and teachers were not satisfied.

Item-07: Satisfaction with the quality (audio-video) of AVBOLT (Asynchronous Video-Based Online Learning and Teaching).

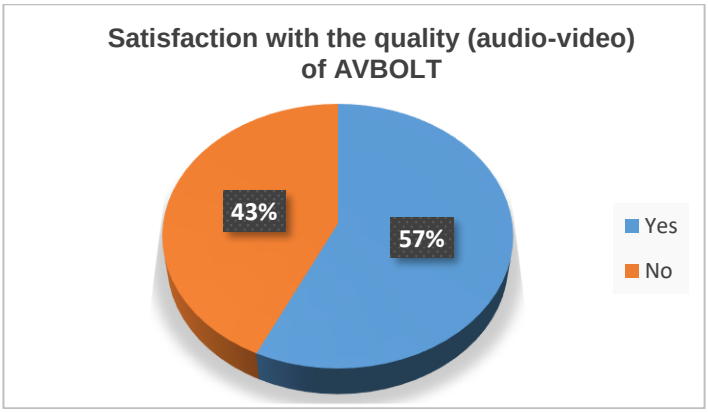

Chart 07 Satisfaction with the quality of AVBOLT (Asynchronous Video-Based Online Learning and Teaching)

Chart 07 shows opinions about satisfaction with the quality (audio-video) of online asynchronous (recorded) video lectures. 57% of students are satisfied with the quality of online asynchronous videos. 43% want improvements in the quality of asynchronous videos.

Item-08: SVBOLT (Synchronous Video-Based Online Learning and Teaching) live video classes are playing effective role.

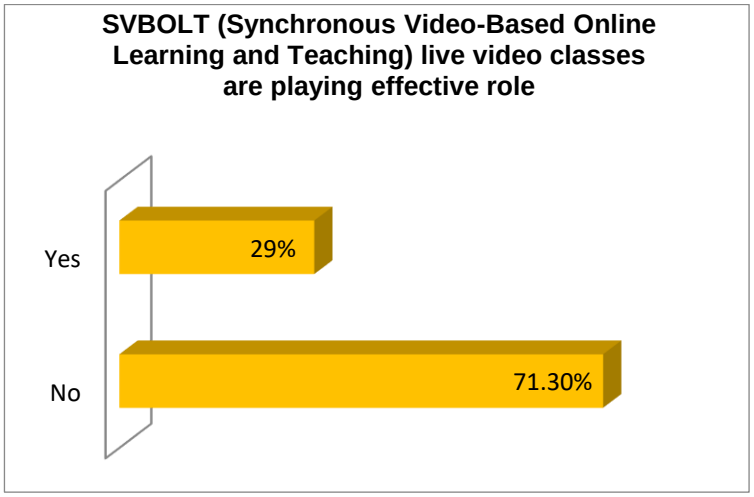

Chart 08 Online app-based live video classes are playing role

Chart 08 presents the role of online learning based study. 29% of participants agreed that online app-based live video classes were playing a more effective role in learning and teaching. 71 % of stakeholders did not agree that online app-based live video classes were playing a more effective role in learning and teaching.

Item-09: Satisfaction with the quality of SVBOLT

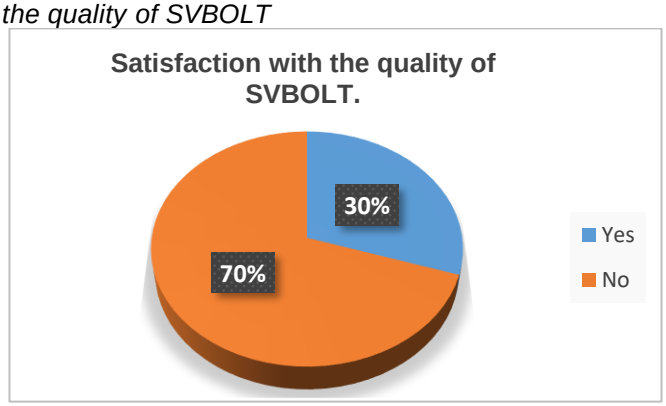

Chart 09 Satisfaction with the quality SVBOLT

Chart 09 shows the result of a participant's satisfaction with the quality (audio-video quality) of online app-based live video lecture classes. 70% of participants were not satisfied with the quality of the audio video. 30% of the participants show their acceptance that they have no issue with audio and video quality.

Item-10: The recorded videos after completing online app-based live classes

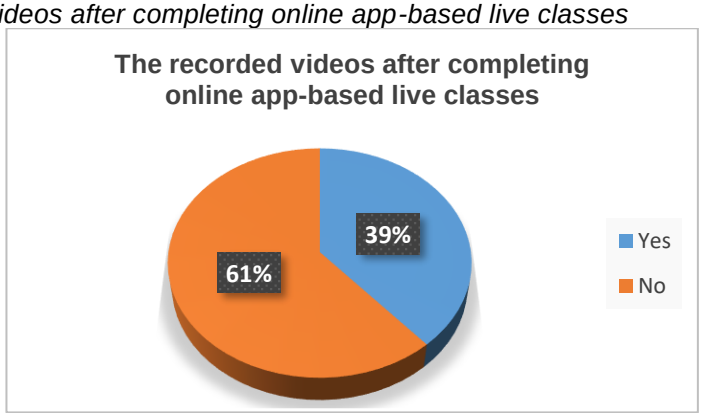

Chart 10 the recorded videos after completing online app-based live classes

Chart 10 represents the status of the recorded videos after completing online app-based classes. 61% of students didn't get the recorded video after completing online app-based live classes. 39% of students got it.

Item-11: Distracted from the sitting positions of teachers/students during SVBOLT live online classes

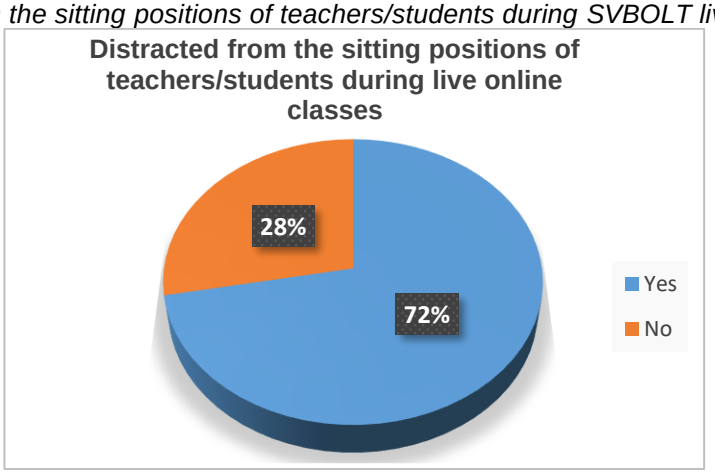

Chart 11 Distracted from the sitting positions of teachers/students during live online classes

Chart 11 indicates that 72% of participants were distracted by the sitting positions of teachers and students during live online classes. 28% of participants were not distracted from their sitting positions by other participants.

Item-12: Receive/ deliver interactive video lectures (with PowerPoint presentations) during online live classes.

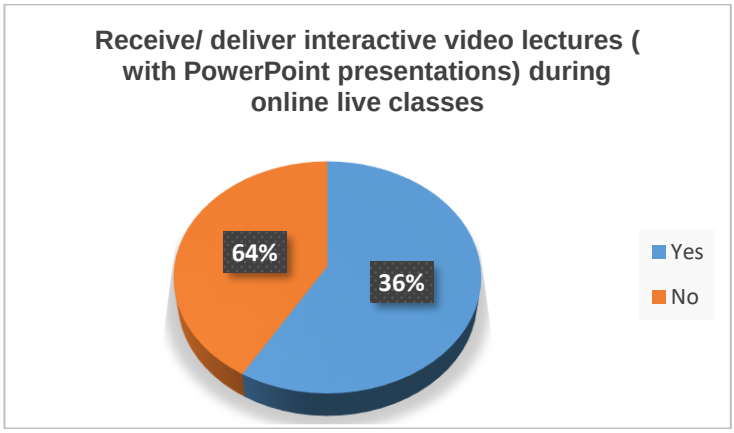

Chart 12 Receive/ deliver interactive video lectures (with PowerPoint presentations) during online live classes.

Chart 12 indicates that 36% of participants accepted that they received or delivered online video lectures with PPT during online classes. 64% of participants didn't receive or deliver online lectures with PPT during online classes.

Item-13: Face any internet connectivity issues during online live classes

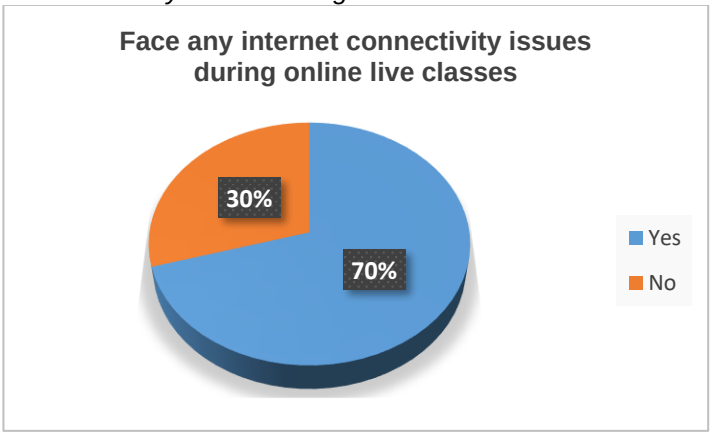

Chart 13 Face any internet connectivity issues during online live classes

Chart 13 shows that 70% of participants faced internet connectivity issues during online live classes. 30% of participants did not face such issues during online live classes.

Item-14: Difference between Asynchronous and Synchronous online teaching and learning.

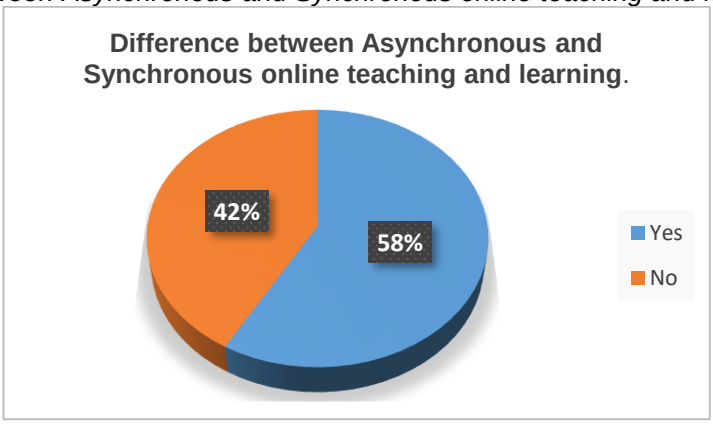

Chart 14 Difference between Asynchronous and Synchronous online teaching and learning.

Chart 14 shows knowledge about asynchronous and synchronous online teaching and learning. 58% of participants know the difference between asynchronous and synchronous online teaching and learning and 42% of participants don't know about the difference.

Item-15: Online teaching and learning is effective

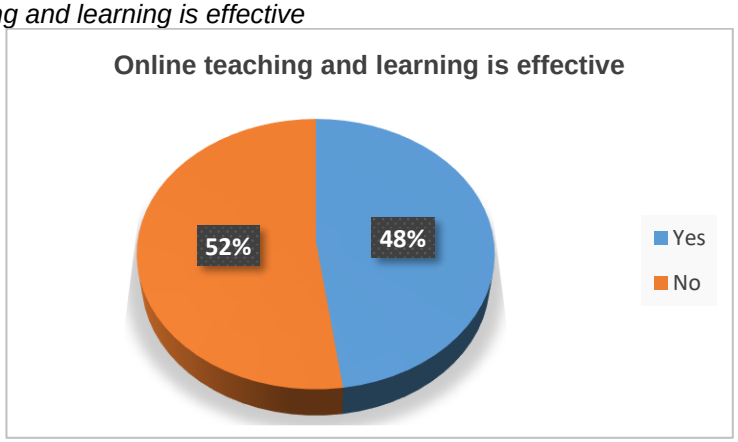

Chart 15 Online teaching and learning are effective

Chart 15 shows the opinions of teachers and students. 52% of teachers and students find online learning effective. 48% of teachers and students did not agree with this.

Part B- This part was designed for gathering the opinion of teachers only.

Item-16: Type of teaching format is easier to teach students

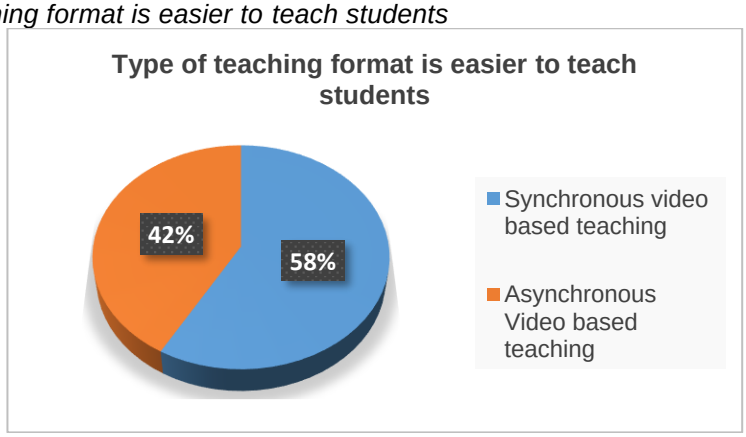

Chart 16 Type of teaching format is easier to teach students

Chart 16 states 58% of teachers said that synchronous video-based teaching is easy to teach and 42% of teachers said that asynchronous video-based teaching is easy to teach students.

Item-17: Knowledge about technology of video lecture production

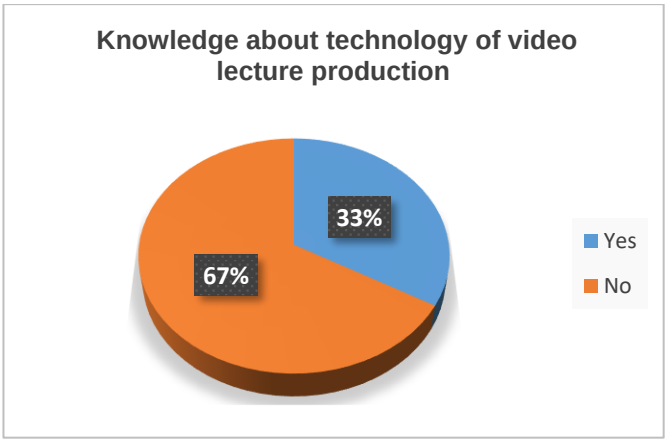

Chart 17 Knowledge about the technology of video lecture production

Chart 17 indicates that 67% of teachers said they don't know about the technology of video lecture production. 33% of teachers know about this technology.

Item-18: Online teaching is easier than classroom face-to-face teaching

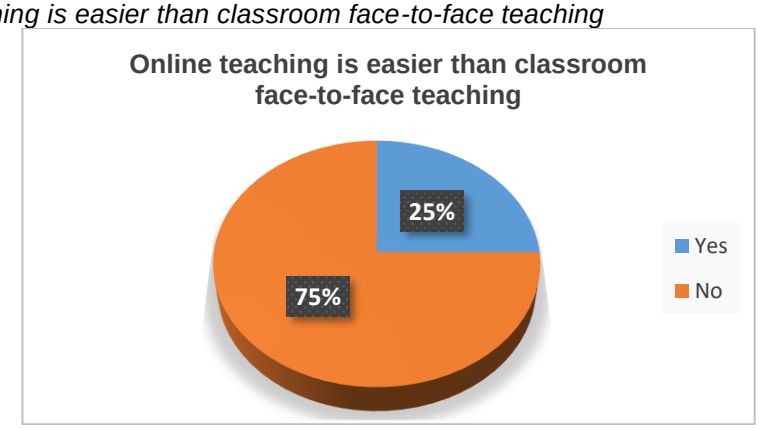

Chart 18 Online teaching is easier than classroom face-to-face teaching

Chart 18 shows that 75% of teachers admitted that online teaching is not easier than face-to-face teaching in the classroom. 25% of teachers said that online teaching is easier than classroom teaching.

Item-19: Knowledge to develop Power Point Presentation

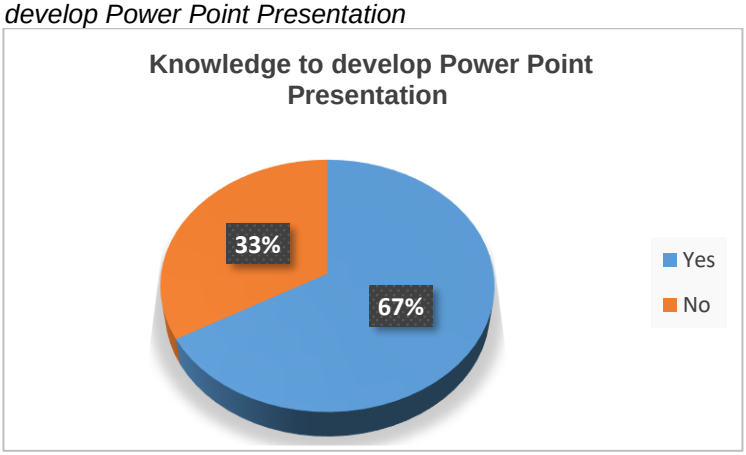

Chart 19 Knowledge to develop Power Point Presentation

Chart 19 shows that 67% of teachers had the knowledge to develop PowerPoint presentations for teaching purposes. 33% of teachers had no knowledge about developing PowerPoint presentations for teaching purposes.

Item-20: Sufficient infrastructure for online live classes

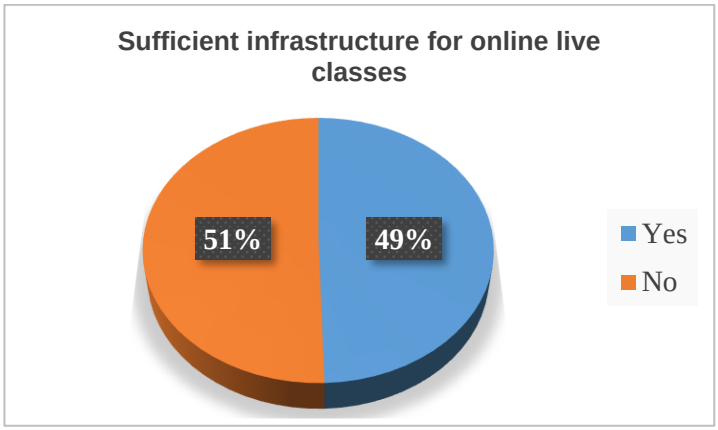

Chart 20 Sufficient infrastructures for online live classes

Chart 20 shows the infrastructure for online live classes. 51% of stakeholders do not have sufficient infrastructure for taking online classes. 49 % of stakeholders have the facilities for attending online classes.

Result and Discussion

The study found that the maximum number of students was studying through an online platform during COVID-19. Also, the same method was followed by teachers to teach students during that period. Schools and institutions are springing up with vigor. Currently, they follow both online and face-to-face learning methods. This situation can be used to create a hybrid educational method. Different types of online platforms or apps are being used for online teaching and learning, which are found in this study. Students and teachers are mostly using Zoom, Google Meet, and YouTube for online learning and teaching. Currently, a hybrid education pattern is being followed by educators to teach students online and offline. Zoom and Meet-based learning indicate synchronous online video learning, and YouTube, Moodle, Lumos, Google Classroom, and others provide asynchronous learning. Synchronous and asynchronous video learning has become the most important part of online education.

The study found that many teachers accepted that online video-based learning is not easy compared to face-to-face learning. One reason could be technology and its pattern of newness. Teachers encountered with lack of sufficient infrastructure related to online video learning technology. Online synchronous live video-based learning needs only a web camera and mobile but professionally quality-based online learning needs a soundproof place (studio), camera, mic, lights, and a machine for editing. Institutions and schools should be managed for quality-based online teaching. Students of urban regions can be managed with smartphones or web cameras but rural region-based students could be difficult to find this. It is a big barrier to online learning in India.

The study tried to find out the effectiveness of synchronous and asynchronous video learning. Many projects are running on Asynchronous Video-Based Online Learning and Teaching in India. Some online courses are offered through SWAYAM India, which uses an asynchronous video-based online platform. "SWAYAM is a programme initiated by the government of India and designed to achieve the three cardinal principles of education policy, viz., access, equity, and quality" (SWAYAM).

Learning time and place- Stakeholders of the study stated that they prefer Asynchronous Video-Based Online Learning and Teaching (AVBOLT) compared to synchronous video-based online learning and teaching (SVBOLT). Different reasons can be caused by things like an asynchronous pattern. Asynchronous video-based learning facilities can be accessed anywhere and anytime. Students can access this facility 24/7, which provides them with more time to study and reflect on the topics of discussion (Lim, 2017). Synchronous video-based learning facility is provided at a fixed time frame and place. Access to the teaching material is on a scheduled basis and can be accessed from many locations (Obasa, Eludire, & Ajao, 2013). SVBOLT provides real-time interaction, and the person whom you are communicating with can give important visual clues. It also permits the live sharing of presentations, documents, and application demonstrations through app-based online platforms.

Quality- AVBOLT is working on a recorded video pattern that can be edited, properly managed, and error-free. The facility can also provide peer-reviewed learning. The quality of video and audio is also better in comparison to living video webcast classes. AVBOLT can provide a processed video that can follow all stages of video production like YouTube-based video lectures. Processed video enhances the quality of video and audio. Learning can be affected by the quality of video and audio. Good quality video and audio can have a good impact on learners. SVBOLT can generate errors in videos that are playing live online. SVBOLT classes are based on the direct watch means video audio quality may be compromised compared to recorded video.

It is compressed to video and audio quality according to internet bandwidth. There is no process to follow in any video production stage. AVBOLT can provide trained and expert video lecturers who are trained and camera-friendly and can present their lectures flawlessly without any hesitation or shyness. In live classes, experts' focus on only content delivery may not follow the ethics of video presentation like sitting position, camera position, camera angles, etc. There is no chance to erase any errors during live classes. AVBOLT can provide good quality content in video lectures consisting of PowerPoint presentations, animation, images, and good graphics with audio effects. SVBOLT has a limit to sharing all this content.

Training about Technology- The study explored that teachers are not aware of or trained to make PowerPoint presentations. It should be emphasised on the matter of training teachers about new media tools which can enhance the good learning experience. Teachers in Indian schools and institutes should be trained to create PPT presentations and other online learning-enhancing tools.

Selection of Online Platforms- AVBOLT provides good quality video content for lectures compared to SVBOLT, but on an economic basis, AVBOLT is more expensive. The main cause of the increasing cost is its different tools. Video lectures for AVBOLT require minimum infrastructure and tools to create them. Sound-Proof Studio enhances the quality of video and audio. Video production-related equipment like Cameras, Microphones, Video Audio Editing Machines, and online platform-related tools are required to deliver a quality video lecture. Along with these tools, they require manpower to operate and manage them. All these things increase the cost in comparison to SVBOLT. Only the webcam used during live video classes may be required for a video production setup, but it could be rarely used. If you want to provide online education effectively to students, it could be done through the development of this infrastructure and tools in Indian Schools and Institutions.

Internet and Power Connection- At present, mobile technology has spread throughout the world and also in India. However, network availability is still a major issue in India, especially in remote areas. AVBOLT has facilitated students' learning so that they can learn anywhere and anytime. It enabled the choice of the stage of learning by learners. AVBOLT platform can provide high-quality content with small video files that take up little disc space. Also, the minimum size of good quality videos can be played with less bandwidth on the internet. Learners can download these videos and can use them in further time slots where there is no availability of the internet. SVBOLT platform performs on only internet bandwidth. It can provide good quality video when the learners have good bandwidth of the internet. During a live session, power failure may affect learners and they may miss that session. Bandwidth can affect the quality of online-based video lectures. There may be a short time lag between delivering a lecture and receiving a response that can disrupt the natural flow of a conversation Documents and other presentations can only be shared through the presenter’s camera.

Conclusion

The study explored that along with offline studies in institutes and schools, the focus was also on online studies. The use of this hybrid education method is a good step in the direction of making studies completely online in the future using new technologies. However, the institutes and the schools will have to ensure that the quality of what is being taught through the online medium and its content is technically and educationally sound. For this, the selection of a platform for teaching through an online medium should be very important. There should be a platform selection in which the content is quality and there is the least possibility of error. Meet technically high-quality standards, and it will be necessary to develop the structure of these quality standards as well.
Teachers should be camera-friendly and should have the necessary technical knowledge related to PPT (PowerPoint Presentation). For this, it is also necessary to have training in the relevant subject so that teachers will be able to understand the technical aspects of the online platform. In the absence of technical knowledge, it will be difficult for the teacher to deliver his content to the students and the students will also not be able to learn properly. The study found that the studies being conducted in the institutes and schools are being taught through the SVBOLT (synchronous video-based online learning and teaching) platform, in which the students have to face various problems. SVBOLT, which is a live webcast through various apps, has a fixed study time and place, which cannot be changed. But if a student is not able to attend at that time, then his online lecture gets missed. The video quality and audio quality of the webcam being used during SVBOLT are also not of the best quality, which may cause trouble for the students in learning. If students lack internet connectivity or have poor connectivity during the live session, they may face difficulties in their studies. AVBOLT can be an effective platform compared to SVBOLT. AVBOLT reduces the obstacles that were faced in learning through SVBOLT because it provides pre-recorded video-based learning. AVBOLT can enhance the learning experience of learners during online learning. Institutions should encourage to AVBOLT pattern for online learning and teaching. AVBOLT provides error-free, quality content to learners. The use of this blended education method (online and offline learning) is a worthy step in the direction of making studies completely online with New technologies.

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