



A Study of Effectiveness of Online Education in Pandemic Period in Pune City

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Abstract. The world has faced sudden lockdown due to Covid-19 pandemic. This worldwide lockdown affected the learners due to abruptly closure of school and colleges. All educational institutes shift themselves on good technical platform for online education. Educators are trying their best to reach to each and every student. Covid-19 Pandemic has made all the educational schools and colleges across the world to adapt online Education. This survey is carried out to find the effectiveness of online education in terms of concept understanding, practical knowledge, social life of students and sudden increase in screen time. This study highlights that students prefer online learning in this pandemic period but they are missing the offline education. It also points out the comparison of online and offline learning in learners' point of view.

Keyword. Online education, understanding concepts, social interaction, effectiveness, self-discipline, practical knowledge, software used.

1. Introduction

The impact of COVID-19 pandemic is observed in each and every sector all over the world. The sectors like education, employment, finance, businesses affected on large scale in pandemic. Due to the lockdown conditions in our country, education sector hampered the most. In India, however, the story in terms of online education tends to vary as compared to rest of the world. Approximately 32 crores learners from different school and colleges were affected in India. This is an exceptional situation in the history of education. Suddenly the complete scenario got changed and education moves from physical classroom to on online platform. Majority of private schools and educational institutions have initiated virtual classes on a daily basis, and thus, teachers are consistently sharing their knowledge over various platforms like zoom, Google-meet, Microsoft Teams etc. In online teaching, along with the requirement of tools such as online platforms, one needs trained teachers also. Online education system works well in urban areas where the infrastructure and network connectivity are obtainable. But, large population in India lies in rural area where online infrastructure is not obtainable. Having electronics gadgets and network availability is a big challenge in rural areas. Over 50% of students don't have access to Internet [8]. Due to this situation, it creates a large gap between the learners in urban and rural areas. Pune has long been a major educational and cultural center. Former prime minister Jawaharlal Nehru referred to it as the "Oxford and Cambridge of India[6]." It's been 15 months of various degrees of Covid lockdown, and students from rural Pune are struggling to get an online education. In Maharashtra, only 35.9% schools had internet facilities on their campuses [7]. But in urban area of Pune network connectivity, technology availability, parents' awareness, affordability are the key features. This study is based on online education in urban area of Pune City.

2. Review of Literature

We are witnessing the pandemic situation since 2020. The literature available on the effects of pandemic in education sector is limited. In this section we summaries the learnings from the review of literature. In the article [5], the paper has focused on overall situation in India. In pandemic, sudden shift to online learning without any planning in India where the backbone for online learning was not ready and the curriculum was not designed for such format. Added to that large rural population is away from digital education. The study has considered overall aspect while they have not touched the urban online education. This study is based on the urban online education where network connectivity, technology availability, parents' awareness, affordability is the key features of urban population. The paper [1] carried out a study on agricultural education system where many courses are practical oriented, shifting completely to online mode may not be possible and need to device a hybrid mode. This paper also focused on student's the way of delivery opposed to face-to-face classroom instruction in classroom teaching, student's confidence in the utilizing the electronic communication for learning and student's capability to engage in autonomous learning.

In the paper [2COVID-PR,2020], the survey believed that training of students and teachers in use of online education platforms, online teaching and examinations in regular schedules and appropriate funding and support from the government

will pave off a way to handle such crisis in the future and build a hybrid of online and offline learning. This paper [3 impact covid-19] highlights some measures taken by Govt. of India to provide seamless education in the country. The concept of “work from home” has greater relevance in such pandemic situation to reduce spread of COVID-19. As online practice is benefitting the students in this pandemic, it should be continued after the lockdown also. In the paper [4 Online Learning: A Panacea], the importance of online learning and Strengths, Weaknesses, Opportunities, & Challenges (SWOC) analysis of e-learning modes in the time of crisis is studied. Parents also have the responsibility to look after their children’s progress in of technological awareness. As they have to deal with rapid technological progress and survive and grow under ever increasing competition, they need to develop necessary technical skills right from their younger age.[9] India can attain a higher rate of growth if India becomes stronger in the knowledge sector and information technology is properly exploited. Thus India can overcome the problem of poverty, generate wealth at a higher rate and can play a significant role at the global level. In order to develop knowledge in society, information has to be structured for fulfilling basic conditions of interactivity, mobility and convertibility, ubiquity and globalization, as Toffer(1990) has pointed out.[12]

Objectives

- To study the effectiveness of Online education.
- To know the most popular online software used in school/colleges
- To study the social life of students in pandemic.

3. Research Methodology

Data collection- The primary data was collected by sending questionnaire. The questionnaire was designed using Google forms and was sent to respondents in Pune city.

Questionnaire- The questions involved were the understanding of concepts, network availability and social circle of students. The questionnaire comprised of questions for which the answers would generate ordinal data. A total of 340 respondents had replied to the survey throughout the Pune city. Convenience sampling is used for data collection. The breakdown of the sample with respect to the type of education – Secondary, higher secondary, graduation and post-graduation. Percentages were calculated for all the questions to summarize the data using pie charts.

4. Observations and Findings

The questionnaire was distributed to students: Findings from the analysis of qualitative and quantitative data gathered from the present study are presented below-

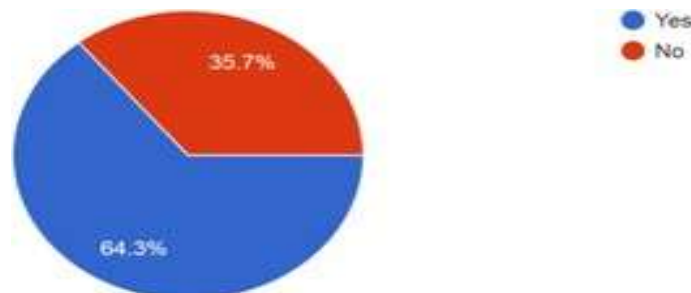


FIGURE 1. Are you comfortable with online teaching?

From fig. 1. The findings of this study indicated that majority of the students evinced a positive attitude towards online classes in the wake of corona. The online learning was found to be advantageous as it provided flexibility and convenience for the learners. It was found that 64.3% respondents are comfortable with online teaching as students can join online lecture as per their convenience and comfort. While 35.7% students have denied that they are not comfortable with online teaching. For effective learning they prefer offline mode. As in offline studies, proper classroom environment initiates learning process in fruitful manner.

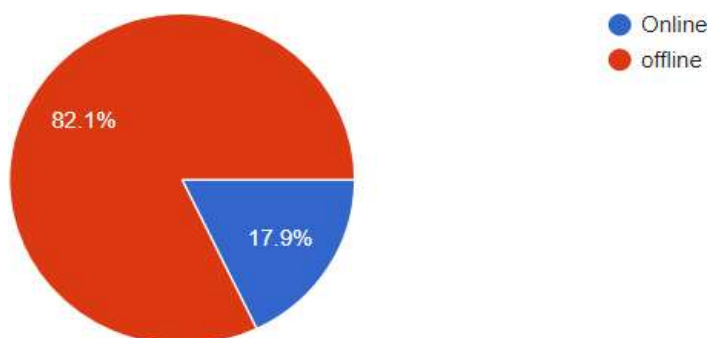


FIGURE 2. Which mode is more effective for learning?

From fig.2 In this study, 17.9 % students agreed that they can learn more effectively in online mode. While 82.1% students

says that offline mode is more effective for learning. On the contrary, online learning teaches students to be self-disciplined.

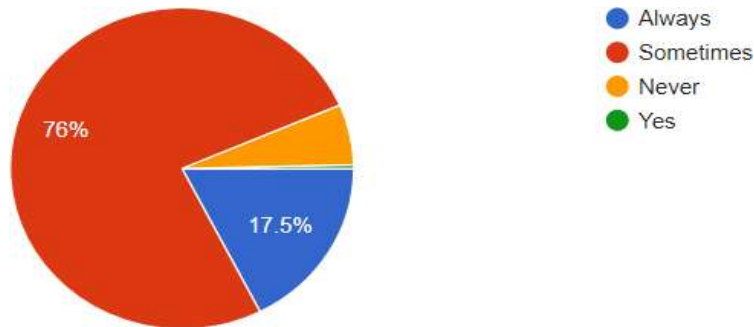


FIGURE 3. Does online teaching gives you clear understanding of concepts?

In this study, 76% students agreed that sometimes they understood the concept clearly in online mode while 17.5% students agreed that they always understood the concept clearly in online mode. 6.5% students responded that they never understood the concepts in online mode.

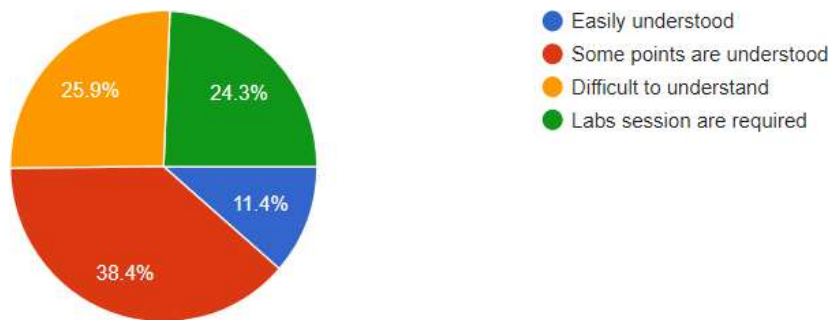


FIGURE 4. Do you understand practical/programming subject online?

Only 11.4% students responded that they completely understood practical subject online. While 24.3% respondent told that they required practical sessions for understanding practicals. 25.9% respondent told that it is difficult to understand the practical subject online while 38.4% students responded that only some points were understood.

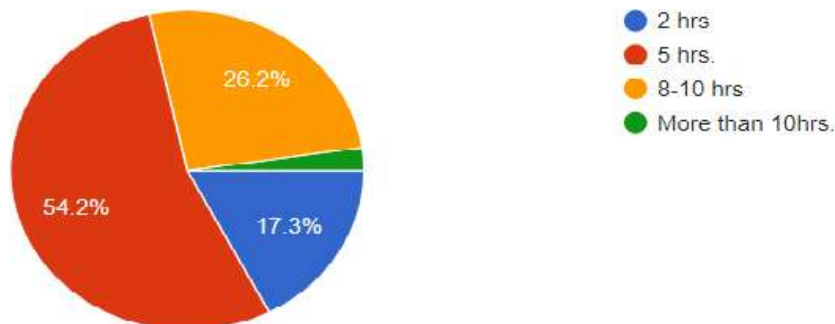


FIGURE 5. Overall how much screen time you are spending

% respondent responded that they spend 8-10 hours in front of screen while 2.3% responded that they spend more than 10hrs. 54.2% respondent responded that they spend 5 hours in front of computer. Only 17.3% respondents only spend 2 hours in front of computer for studies.

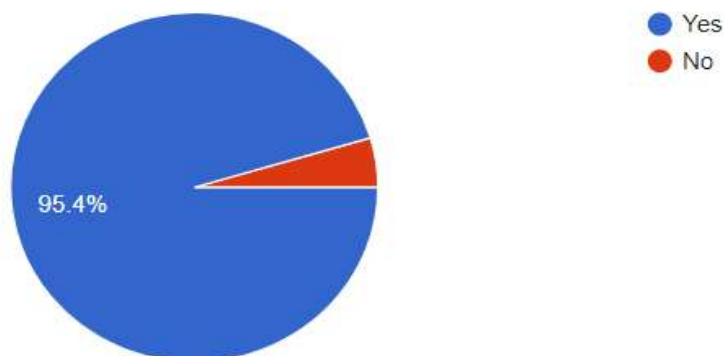


FIGURE 6. Do you miss your teachers and friends in online school/college?

It was found that 95.4% students are missing their social life. While only 4.6% students are not missing their college friends and teachers.

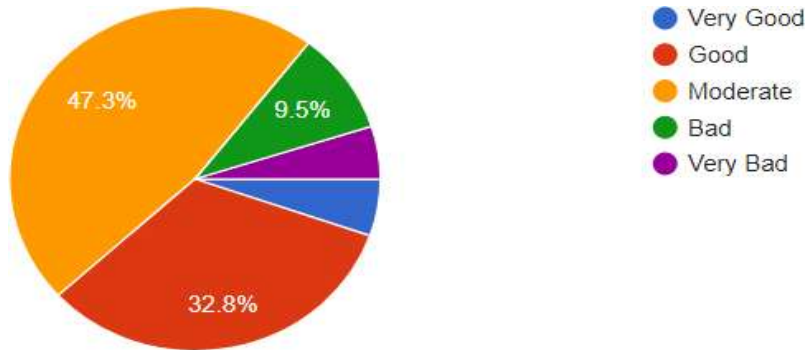


FIGURE 7. What is your rating scale for online education?

From fig. 7 – 47.3% of respondents has given moderate rating for online education while 5.3 % of students showed that they prefer online education. 32.8% of students responded that online education is good 0.5% of student responded for online education as very bad. Respondents (Students) have given average rating for online education which can be a better option for this pandemic situation only. For practical subjects, students need hands on experience rather than virtual.

Discussion: According to the survey carried out in this research, students adopted this online mode only for pandemic period but in future they are willing to go for offline or blended mode. As this pandemic elongated for more than two years, students become more habitual about their online existence. Because of the stopover of schools and colleges, students are trailing their socialism. In future, it might affect on their psychology, social relations, family life and overall personality. Sudden increase in screen time and continuous sitting posture might affect on their physical health. School going children become more addict of video games and other stuffs on Internet. Social medias become a part and parcel of every student's life. The opportunities of new era of education gives rise to many challenges which can be overcome by self-disciplines among the students.

5. Conclusion

From the above findings it has been concluded that-

1. Overall screen time for students has been increased in online education.
2. Online learning is dull. Student become passive learners and seems to be losing interest due to low levels of attention span.
3. The recruiters may face a major risk in the area of student recruitment and retention.
4. Students got habitual with visual aids. Hence after pandemic education will not become totally offline.
5. In future education will become a combination of offline teaching with some online models which we can say in hybrid mode.
6. Some of the key areas of opportunities are blended learning: Face to face delivery along with an online model.

Also, Covid-19 brought some new changes and opportunities in the education sectors which transform it into new digital era. Some of the key areas of opportunities are following:

1. Blended learning: Face to face delivery along with an online model.
2. Learning Management Systems (LMS): Many educational institutes are shifting towards LMS system to keep track of students regarding their assignments, study material and exam conduction.
3. Improved learning material: It changes the quality of learning material form old style notes to audio, video and animated material. You-tube is also become an important learning platform.
4. The Covid-19 outbreak resulted in lockdown, has forced the adoption of digital education amongst the learners. This has lead to newer teaching-learning patterns which may prove to be more effective and efficient in the long run.
5. We can secure our educational data by using the blockchain technology.[11]

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