THE IMPACT OF THE COVID-19 PANDEMIC ON THE QUALITY OF EDUCATIONAL PROCESS: A STUDENT SURVEY WITH SPECIAL REFERENCE TO SANJIVANI COLLEGE OF ENGINEERING.

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ABSTRACT

As India went into lockdown on March 23, 2020, everything was affected, including schooling, as the link between students and teachers was broken. Soon after, attempts were made to close the gap using a variety of online resources such as Google Classroom, Zoom, Google Meet, and Moodle, as well as proprietary sites such as LMS. However, since this choice has its own pitfalls, researchers needed to recognize the problems posed by students in order to suggest potential alternatives if the COVID-19 pandemic persists or recurs. In order to pursue an appropriate teaching method and understand the advantages and disadvantages of online learning, efforts should be taken to include effective learning methods after Covid-19 ends. Therefore, students from the Faculty of Engineering at Sanjivani College of Engineering, Kopargaon were asked to participate in the research. The survey's findings revealed that the majority of students were dissatisfied with the actions taken during the lockout era, as well as the manner in which the method of teaching-learning-assessment took place. However, some students spoke about a lack of sufficient facilities, less efficient teacher-student contact and engagement, the difficulty of conducting realistic applications, a lack of socialization, a lack of academic incentive, a less rigorous evaluation (e.g., the probability of cheating), and the possibility of physical and mental health deterioration. As a result, for the new academic year, the administration must take appropriate and productive steps to eradicate, as far as possible, these negative problems and enhance the efficiency of the online educational process.

Keywords: *COVID-19 pandemic; lockdown period; quality of educational process; online platforms; student survey*

INTRODUCTION

As a cornerstone of just, fair, inclusive, and productive communities, education is a "fundamental human right, a global collective good, and a central force of progress in all 17 Sustainable Development Goals (SDGs) of the 2030 Agenda" according to the United Nations (UN, 2020). In terms of economic and social implications, the COVID-19 pandemic has been called a "black swan" event (Krishnamurthy, 2020,) a "catastrophic calamity," (Sundarasen, et al., 2020) and has been compared to World War II and has triggered the most significant disruption in education in history, and has already had a nearly universal effect on students and teachers all over the world (Romero-Blanco, et al., 2020) (Ebner, et al., 2020).

Universities in the higher education sector have been forced to close their doors due to budget cuts to keep students' retention and access to learning despite the growing coronavirus outbreak and, where the IT infrastructure permitted, transfer classes to online learning to keep students' retention and access to learning despite the coronavirus outbreak (The World University Rankings).

The online platforms included a way to continue teaching and learning events. Even if the appropriate infrastructure was in place, the lockdown presented an immediate challenge in terms of maintaining consistent and

reliable contact channels with staff and students. Teachers did not often have the necessary skills to seamlessly transition from face-to-face to online instruction, which frequently culminated in students "learning by doing" or imitating the face-to-face style, which does not guarantee the same degree of educational excellence (Zhang, Wang, Yang, & Wang, 2020), (Watermeyer, Crick, Knight, & Goodall, 2020). A temporary change to a different teaching mode in response to a crisis (e.g., the COVID-19 pandemic) cannot be compared to a well-planned and configured online education phase, and even less so with face-to-face learning, in our view (Hodges, Moore, Lockee, Trust, & Bond, 2020). Furthermore, technical difficulties could force senior teachers with long institutional tenure to leave the system, potentially resulting in the loss of valuable organizational experience (Stoller, 2020). Students were also put under a lot of pressure, as they were immediately required to have a wide range of skills, competencies, and resources (Iivari, Sharma, & Venta-Olkkonen, 2020). Teachers and students all over the world have been affected by these problems, which have impacted their physical, psychological, and social well-being. For example, a study of the psychological effects of COVID-19 at a Spanish university found that students had moderate to extremely serious anxiety, depression, and stress, while university staff had lower scores (Odriozola- González, Planchuelo-Gómez, Irurtia, & de Luis-García, 2020). A quantitative and qualitative analysis of students from a public university in the United States revealed stress, anxiety, and concerns about coronavirus infection, as well as changes in mental health (Patricia).

Consequently, students with less resources (e.g., a lack of digital or inappropriate equipment, a lack of Internet or a sluggish access to Internet networks) and limited digital abilities were more likely to be harmed by online learning, exacerbating established inequities (Govindarajan & Srivastava, 2020), (Zimmerman, 2020). It was discovered that students who did not use educational technology had a lower sense of self-efficacity, which contributed to a decrease in cognitive involvement. A similar hypothesis was promoted, showing that students' attitudes toward educational technology had a direct effect on their learning process, with a negative attitude having a negative impact on their academic performance (Ali, 2020).

Internal context at the Sanjivani COE –

Considering the progression of the international epidemiological situation as a result of the spread of the SARS-CoV-2 coronavirus, as well as the World Health Organization's (WHO) announcement of a "Pandemic" on March 11, 2020. The National Disaster Management Act was enacted by India's central government on March 24th. 2020. The Management decided to suspend the teaching and tutorial activities from 18th March 2020. To avoid a negative effect on the teaching-learning process, fast solutions for online courses had to be given. Initially, students were communicated with through e-mail, various channels, applications (e.g., Zoom, Skype, WhatsApp), and social media networks, or by phone. A comparison was conducted, taking into account various factors such as the maximum number of participants in the free/full edition, anonymity, protection, and the ability to log, exclusive functionality, and the use of the whiteboard for teaching. As a result the management decided to build its own Learning Management System, and from 21st July 2020 lectures were conducted on LMS.

LITERATURE REVIEW

India has the world's third largest higher education sector, after China and the United States. According to the All India Survey of Higher Education (AISHE), there are 993 universities, 39,931 schools, and 10,725 standalone institutions in India at the moment. Just 14 state open universities and one central Open University are among the total number of universities. Uttar Pradesh, Maharashtra, Karnataka, Rajasthan, Andhra Pradesh, Tamil Nadu, Gujarat, and Madhya Pradesh are the top eight states in India in terms of the number of schools. However, in comparison to the total population of this vast country, the number of such institutions is relatively small, and access to higher education for every Indian citizen remains a pipe dream. Just 54 percent of those enrolled in higher education are male, while 46 percent are female. The GER (gross enrolment online/blended ratio) has yet to hit 30%. (Now 25.8 percent). The Government of India (GOI) has attempted to advance the awareness revolution among the people of India by using 21st-century digital skills. However, the specified goals of Indian higher education, such as knowledge sharing, use of information networks and mass media technology, improving efficiency, and so on, must be viewed as the only means of ensuring Indian learners' employability (Ritimoni Bordoloi, 2021).

During the pandemic-induced lockdown, (Hasan, 2020) conducted a qualitative survey of 408 students to learn about their views on online teaching–learning. He mentioned that online teaching emerged as a possible medium to help students' learning remotely. To ensure that education at all levels could continue, educational institutions in India and around the world adopted an online teaching-learning mode. During the lockdown, students were encouraged to use tools such as WebEx, Zoom, Google Meet, Say Namaste, and learning management systems (LMS) such as Moodle, Blackboard, and others to facilitate their learning in every way possible. However, in India, where there is still a huge digital divide and a large number of learners belong to deprived communities, internet connectivity and unaffordable technology were more likely to put learning out of reach for thousands of students. However, in this time of crisis, the

most difficult challenge was to make learning open and worthwhile to learners of all ages and stages. Instead of launching online teaching in a haphazard and rushed manner, the author suggests that recognizing students' priorities and challenges when studying online would assist in aligning technology and pedagogy with students' interests and learning preferences.

Pedagogy for Continuing Education through Online

Owing to the COVID-19 pandemic, most countries have implemented lockdown and social distancing initiatives, which have resulted in the closing of colleges, training institutes, and higher education facilities. Educators are delivering quality education across multiple online channels, which is a paradigm change. Despite the difficulties faced by both educators and learners, online learning, distance learning, and continuing education have become a panacea for this ongoing global pandemic. For learners and educators, moving from conventional face-to-face learning to online learning may be a radically different environment that they must adjust to with little or no other choices. Via numerous online outlets, the education system and educators have embraced "Education in Emergency," and are forced to follow a system for which they are unprepared (Pokhrel & Chhetri, 2021). During the pandemic, e-learning resources were important in assisting colleges and universities in promoting student learning during the closing of universities and schools (Subedi, Nayaju, Subedi, Shah, & Shah, 2020). Staff and student readiness must be assessed and encouraged when adjusting to the latest changes. Learners with a fixed mindset have a hard time adapting and adjusting, while learners with a development mindset adapt easily to new situations. For online learning, there is no one-size-fits-all pedagogy. There are a number of subjects to choose from, each with its own set of requirements (Doucet, Netolicky, Timmers, & Tuscano, 2020). Physically disabled students will also benefit from online learning because it enables them to engage in learning in a simulated environment with minimal movement (Basilaia, 2020).

Students, parents, and educators around the world have felt the sudden ripple impact of the COVID-19 pandemic as schools have been closed to deal with the global pandemic. Although government, frontline staff, and health officials do their utmost to control the epidemic, educational systems aim to provide high-quality education to all students during these difficult times. Many students have endured psychological and emotional distress at home/living space and have been unable to participate productively. The competence and exposure to information and communications technology (ICT) for both educators and learners can influence the use of appropriate and relevant pedagogy for online education. Unified communication and collaboration tools, such as Microsoft Teams, Google Classroom, Canvas, and Blackboard, have been used in the past to enable teachers to build instructional courses, training, and ability development programmes. They have features such as workplace chat, video meetings, and file storage, all of which help to keep classes organized and productive. They typically allow you to share a wide range of files, including Word, PDF, Excel, audio, and video. Quizzes and rubric-based evaluation of submitted assignments make it possible to monitor student learning and assessment. (Petrie, 2020) The flipped classroom is a simple technique for distributing learning materials such as posts, prerecorded videos, and YouTube links prior to the start of class. The time spent in the online classroom is then used to further understanding by engaging in discussions with faculty and peers (Doucet, Netolicky, Timmers, & Tuscano, 2020).

Challenges in Teaching and Learning-

With so many sites and online educational resources available, users both educators and learners experience regular hiccups when using or referring to them. The following are some of the issues that many researchers have described and highlighted.

Accessibility, affordability, versatility, learning pedagogy, life-long learning, and educational policy are all problems with e-learning (Murgatrotd, 2020). Many countries face significant challenges in terms of maintaining a stable Internet link and gaining access to digital devices. While many economically deprived children in developing countries cannot afford online learning devices, online education increases the learner's exposure to screen time. As a result, offline practices and self-exploratory learning have become important for students. Since both parents work, there is a lack of parental guidance, particularly for young learners. There are practical questions concerning physical workspaces that are accommodating to multiple learning styles. Inherently motivated learners are largely unaffected in their learning since they need little supervision and instruction, while students who are poor in learning face challenges. Some academically capable students from low-income families are unable to access and afford online education (Pokhrel & Chhetri, 2021).

Owing to shortened communication hours for learners and a lack of consultation with teachers while learning/understanding challenges, students' academic performance is likely to suffer in classes held for both year-end and internal exams (Sintema, 2020).

Students are assessed online, which involves a lot of trial and error, as well as ambiguity and confusion among teachers, students, and parents. The method used to administer online exams differs depending on the convenience and experience of the educators as well as the compatibility of the students. Many schools and organizations have yet to implement appropriate plagiarism-checking initiatives, owing to the large student population. Due to the COVID-19 outbreak and national lockdown, various state-level board examinations, recruitment tests, university-level assessments, and admission exams have been postponed throughout India. BITSAT 2020, NATA 2020, CLAT 2020, MAT 2020, ATMA 2020, and other entrance exams have also been delayed or rescheduled. The ongoing crisis has had a huge effect

on the education system in schools, colleges, and universities around the world. It's also likely that the interruptions would help certain students' careers. In Norway, for example, it has been determined that all 10th grade students will earn a high school diploma. According to a study conducted in France, the 1968 abandonment of standard examination procedures in France in the aftermath of student riots resulted in positive long- term labour market effects for the affected cohort (Pokhrel & Chhetri, 2021).

Opportunities for Teaching and Learning

While there have been various obstacles for educators, colleges, institutes, and the government in regards to online education, the COVID-19 pandemic has provided many opportunities for those who are unprepared or have long-term ambitions to introduce an e- learning framework. It has strengthened the bond between teachers and parents like never before. Homeschooling necessitates parents' financial and academic support for their children's education. During this current emergency, children with disabilities need extra and specialized assistance. For the first time ever, online platforms such as Google Classroom, Zoom, interactive learning environments, social media, and various community channels such as Telegram, Messenger, and WhatsApp are explored and tried for teaching and learning. Also after face-to-face teaching returns, this can be explored further, and these channels can offer additional tools and coaching to learners. Teachers are expected to come up with innovative ideas to help solve the drawbacks of virtual teaching. On a local level, teachers are constantly working with one another to develop online teaching methods. When educators, parents, and students share common experiences, there are incomparable opportunities for collaboration, innovative ideas, and willingness to learn from others and try new tools (Doucet et al., 2020). Many educational organizations are making their tools and solutions accessible for free in order to assist and encourage teaching and learning in a more immersive and engaging manner. Online learning has enabled teachers and students to teach and learn in new ways that are not possible in a traditional classroom environment. (Pokhrel & Chhetri, 2021)

Objective of the study:

- To determine the impact of COVID-19 pandemic on educational process at Sanjivani College of Engineering
- To determine the viability of the current infrastructure and the online platform that has now been introduced
- To recognize the problematic factors identified by students in order to provide future ways to fix them. If the COVID-19 pandemic continues or is replicated in the future

RESEARCH METHODOLOGY

Primary Data: The primary data was gathered by using a questionnaire. The survey consisted of 13 questions based on various variables.

Sampling:

Purposive sampling was used by the researchers. Purposive sampling is often referred to as selective, judgmental, or subjective sampling.

Sampling Area: Sanjivani Rural Education Society, Kopargaon.

Population: The target population for the study are the students of Sanjivani College of Engineering, Kopargaon.

Scope of the Study:

This study is meant to analyse the impact of COVID-19 on the quality of education at Sanjivani College of Engineering. This study is limited to Sanjivani Rural Education Society, in Kopargaon Local Area of Maharashtra State.

Possible Methodological Limitations:

1. Lack of available and/or reliable data.
2. Measure used to collect the data.
3. Lack of generalizability
4. Time constraint.
5. Resource constraint
6. No direct source of information available

DATA ANALYSIS AND INTERPRETATION

This chapter presents the analysis of data, interpretation and results of the study. The analysis was based on the information collected using a structured questionnaire. Tables were used to display the respondents' answers, which were also analyzed.

A total of 109 students took part in the study, with strong trends emerging in their perceptions of online learning efficiency.

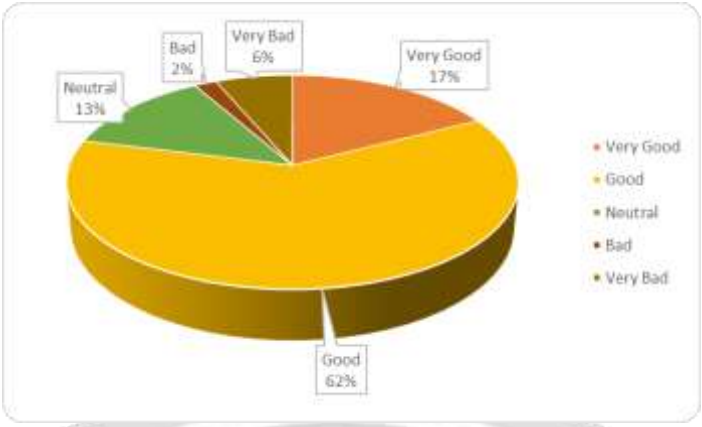

Chart- 1: Respondent's answer to the question 1-How would you appreciate the teaching learning process at Sanjivani College of Engineering?

The teaching learning experience was rated as excellent by 17% of the total respondents, fine by 62%, and neutral by 13%. Just a few respondents felt the teaching learning experience at "Sanjivani College of Engineering" prior to the COVID-19 pandemic was poor, inadequate, and ineffective.

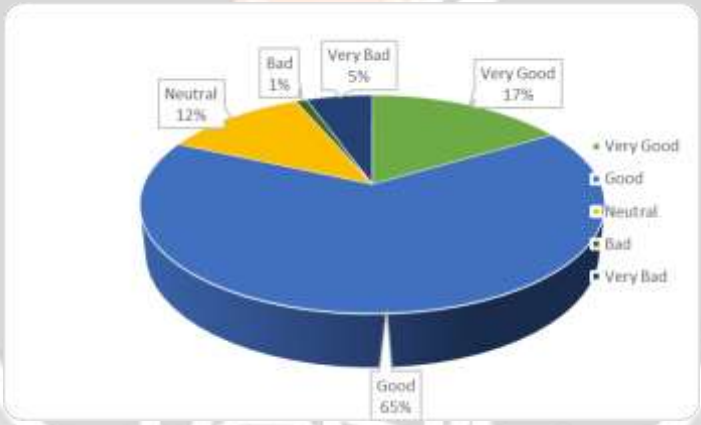

Chart- 2: Respondent's answer to the question 2-How would you rate your interaction and communication with teachers prior to COVID-19 pandemic?

Before the Covid 19 pandemic, about 82 percent of students were very satisfied when engaging and connecting with teachers and performing different things such as studying, attending seminars and lectures in person.

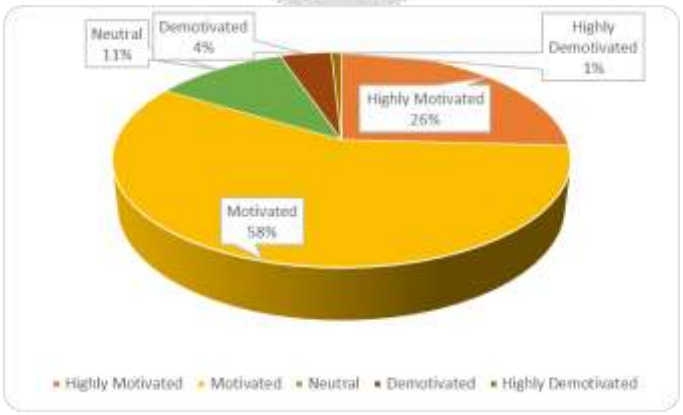

Chart-3: Respondent's answer to the Research Question 3-How would you score your motivation to study and attend

lectures prior to the COVID 19 pandemic?

According to the table above, the vast majority of students were highly motivated prior to Covid-19, with 84 percent of students expressing this sentiment. About 11% of students remain unsure, whereas 5% opted to disagree.

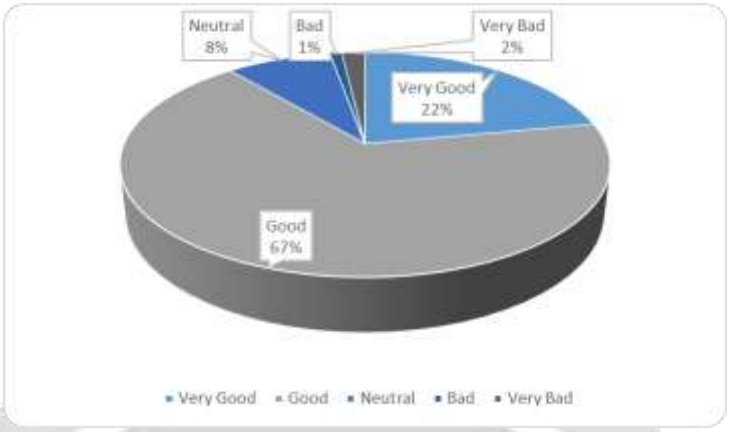

Chart-4: Respondents answer Research Question 4: How would you score your assessment/examination experience at Sanjivani College of Engineering before COVID 19?

In the overall survey, 67 percent of students considered the assessment/examination experience at Sanjivani COE to be satisfactory, while 8 percent were neutral on the subject, 22 percent of students found it to be a very good stake, and only 3% of students found it to be a negative experience.

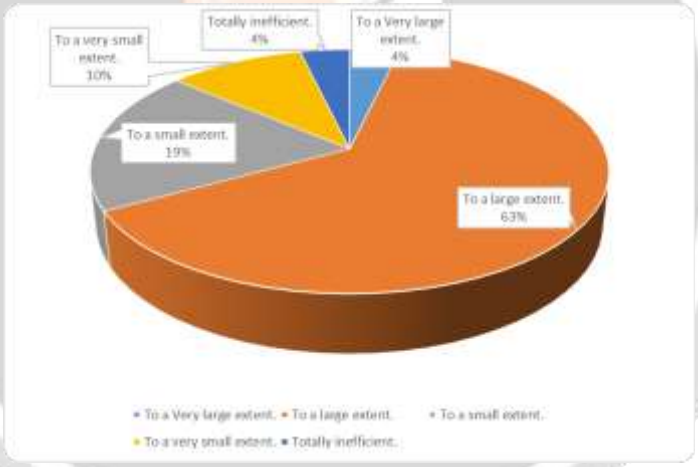

Chart-5: Effectiveness of measures taken to ensure the continuity of Educational Process.

Just a few respondents thought the steps taken by "Sanjivani College of Engineering" during the COVID-19 pandemic to ensure the educational process's continuity were insufficient and ineffective, and the majority of them agreed that the measures taken were effective and successful

Items for quantifying the online experience	Very Good	Good	Neutral	Bad	Very Bad
Interaction and communication with teachers (teaching courses, conducting laboratories/ seminars/ other practical applications)	3	48	36	19	3
Motivation to learn	5	38	40	23	3

Quality of online learning content (e.g. courses, multimedia Content: audio, audio-video, etc.)	2	49	44	13	1
Teachers (providing personalized or group feedback, guidance/ tutoring)	11	21	65	8	4
Assessment/Examination	10	40	46	9	4
Possibility to connect to the Internet	38	46	15	7	3
Availability and utility/efficiency of the online platforms and devices	39	39	24	4	3

Table-1: Respondents answer to the items regarding question 6: During the COVID-19 pandemic, how you value the online teaching–learning–assessment experience

The majority of the students graded the online teaching, learning, and assessment/examination experience during the COVID-19 pandemic as "good" or "very good." Nonetheless particular consideration should be given to students who did not gave these scores because they which may fall into a disadvantaged group that necessitates the College's introduction of appropriate support measures.

In terms of being able to link to the Internet and having access to digital equipment, 3 students rated it as "very bad" and 4 students rated it as "bad." These students obviously did not have access to the online sites, as they said. Although the majority of students (roughly 90%) stated that they have the requisite infrastructure, the next two things demonstrate that contact with teachers is not as efficient. Also the neutral answers, we conclude, show a lack of communicating. On the one side, the teacher-student communication delink could be caused by the students' lack of learning interest, which resulted in the lowest score, as the results show. Another explanation may be the teachers' lack of experience in online learning. When it comes to online testing/assessment, the majority of students were pleased (approx. 90%). However, 42%% of them took a balanced stance, which may indicate a minor disappointment with the received grades/examination process or an impartial assessment of their own results and lack of participation.

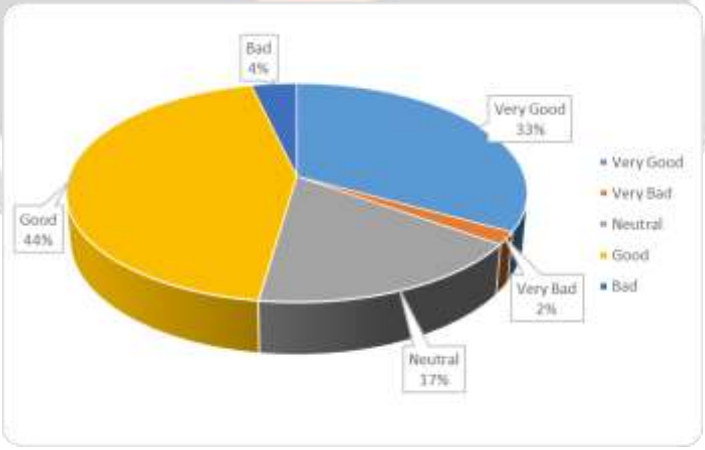

Chart-6: Respondents answer to the question 7. Combining conventional (face-to-face) education with online education is one choice for the advancement of the educational phase in the academic year 2020-2021. What are your thoughts on this choice, given the learning requirements?

The prospect of merging conventional and online education in the academic year 2020–2021, was the next topic discussed in the survey. When asked how they feel about this choice in light of their educational needs, the majority of students (77%) agreed with it, 17% were neutral, and 6% thought it was a "wrong" or "really bad" proposal

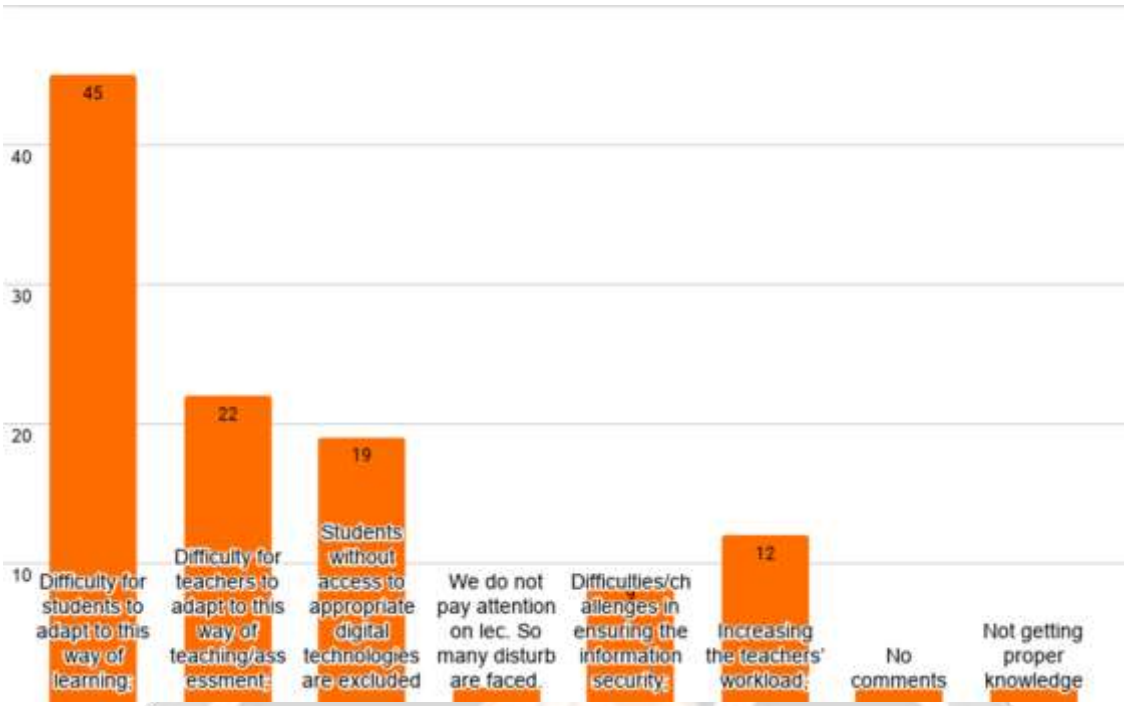

Chart-7: -Respondents answer to question 9: What are the drawbacks of mixing face-to-face education and e-learning?

Students ranked first among the drawbacks of integrating the two styles of education: "Difficulty for students to adapt to this way of learning." "Difficulty for teachers to transition to this way of teaching/assessment" was ranked second, and "Students without access to suitable new technology are removed from the teaching - learning phase" was ranked third, demonstrating an empathetic approach toward their peers, even though the majority of those who responded have the requisite means.

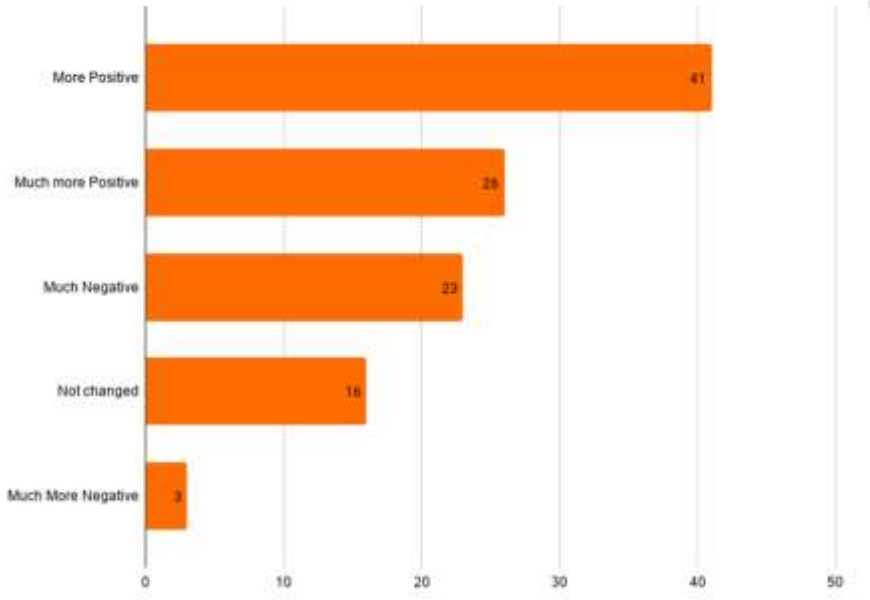

Chart-8: Respondents' answers to question 10 what is your view about online learning in the context of the COVID-19 pandemic?

As a result, when asked how the COVID-19 experience influenced their view of online education, 37.61 percent said it became “more positive,” 23.85 percent said it became “much more positive,” 14.67 percent said it remained unchanged, and 17.4 percent said it became “much negative”/“much more negative.”

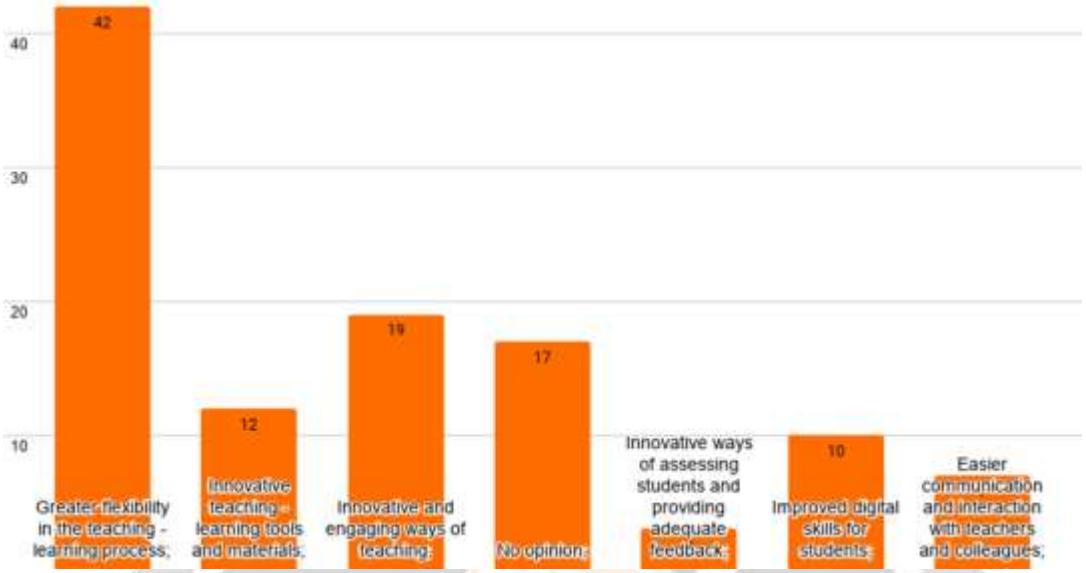

Chart-9: Respondents’ answers to question 11: What will main benefits of online training in the future?

When asking about the potential advantages of online education, 47.7 percent of students said it provides "greater versatility in the teaching-learning process" and helps them improve their digital skills. Then, 11% of students rated “innovative teaching-learning resources and materials” that could be used in the teaching-learning process, and 17.4% felt it could be an innovative and interactive means of teaching.

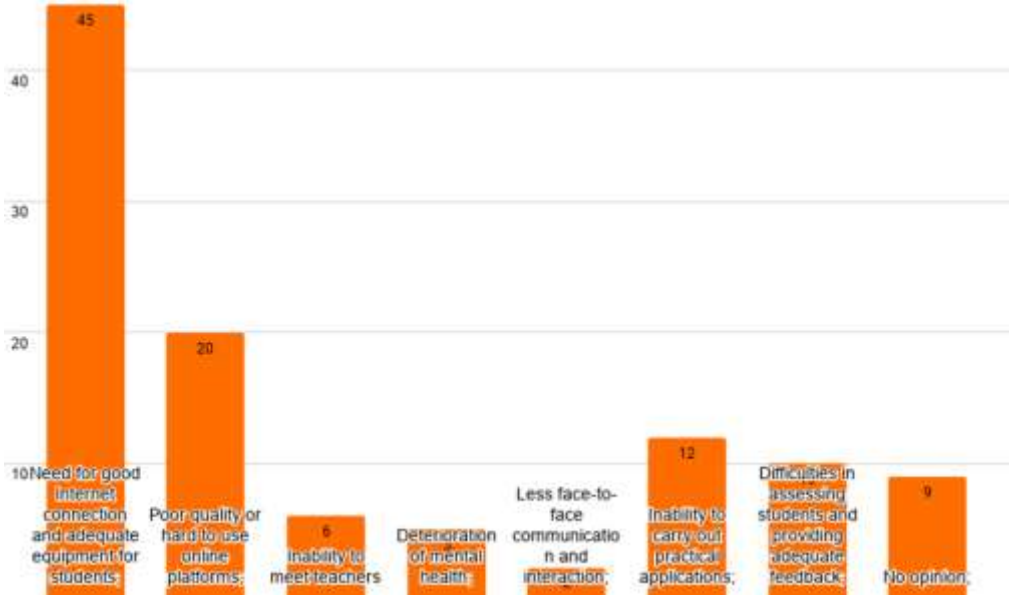

Chart-10: Respondents’ answers to question 12: What will be the problems of online education in future?

However, the “inability to carry out practical applications” will be a significant drawback of interactive education. That's it. Many sciences have functional uses due to the unique characteristics of the faculties. Access to labs is critical for students to improve key skills and competencies. Students in the Faculty of Engineering include technical machinery, instruments and machines, templates, and machine tools, among other things. Online learning cannot replace functional implementations.

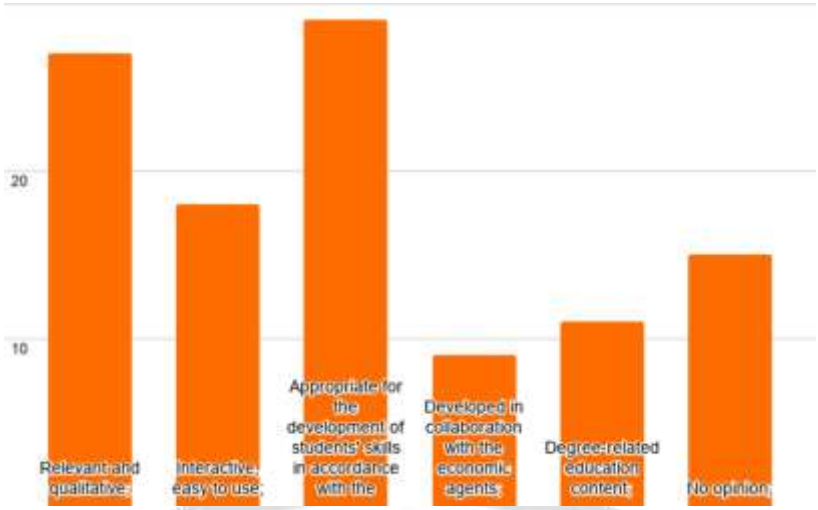

Chart-11: Respondents' answers to question 13 In future, what will be the biggest drawbacks of online learning?

In terms of educational resources/content for online learning, we can see that students have high requirements for these materials: first, they must be substantive and qualitative, second, they must develop skills that are specifically relevant to labour market demands, and third, they must be entertaining and easy to use.

DISCUSSION

From a student's view, the study revealed a variety of negative factors relevant to the advancement of online educational processes.

1. There were few number of students who did not have required amenities like smart phones, internet to attend online lectures.
2. The inability to carry out practical applications
3. Even when resources became open, effective contact between students and teachers remained a problem.
4. There were a number of issues with online assessments, namely widespread copying and a lack of impartial review. Many students believed that the playing field was not level and even the lowest scorers were able to outscore the highest scorers.
5. Since there was no meaningful connection between students and teachers, the teacher and student community lacked a sense of belonging which used to bind them together.
6. Both teachers and students spent the whole day in front of their monitors. It had an effect on their emotional health, which we can attest from our own realistic life experience. For example, in college, we had a habit of taking breaks and going to the casual roam across campus to lighten our mood for further lectures.
7. As we can see from the above data analysis, students' participation rates dropped dramatically during to Covid-19, so getting students on the road to education was a huge challenge for teachers.
8. The challenge we face is not technical in nature, but rather of human psychology, since the majority of students reported that the college's attempts to keep education going are successful.
9. Since the government imposed a lockout on the 24th of March 2020, the students were unable to engage in any academic activity for the next two to three months, which could have caused them to become lethargic and inactive.

10. To address the above issue of low student morale, the college must devise strategies to attract students' attention
11. To add to the preceding statement, the key attraction of offline education was not only the education but also the opportunity to socialize with peers and colleagues. This part of the equation, which was the fundamental premise of college life, has been removed.
12. However, due to government constraints, the college has very few choices. Additionally, the problem of lack of socialization, which was overly stressed by students in the aforementioned poll, cannot be ignored.
13. One solution to this can be Students will stay in touch and express their thoughts and viewpoints on the institution's personal blog, which can be hosted on the institution's proprietary learning management system.
14. Regarding mass copying that occurs during examinations, the assessment pattern may also evolve. In this case, the use of open book tests would be beneficial so students would be able to bring only theory with them, and the questions on the question paper would be of an implementation type, thereby achieving the goal of outcome-based education.
15. Regardless of what is acceptable to students, the teachers will have to conform to online teaching as the government does not provide teachers with an official curriculum for adequate instruction, making them compliant with the online teaching.

CONCLUSION

The COVID-19 pandemic has had a major effect on the teaching learning evaluation process at Sanjivani College of Engineering, according to the findings of the report. Despite the fact that the college has taken significant measures to impart knowledge and teachings in the wake of the COVID-19 pandemic. The problem that colleges must face is not one of technological viability, but rather one of human capital planning for such a system

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