

# TECHNOLOGICAL-ENHANCED EDUCATION IN THE POST COVID-19 ERA

1. Dr. Asha S 2. Dr Vyshnavi 3. Srikanth Bomkuru 4. Monal Reddy 5. Yashwanth M

Center For Management Studies, Jain (Deemed to be University)

Bachelor in Business Administration

## Abstract

For the purposes of this special issue, this study selects students' perspectives on technology-based use during the global pandemic to highlight challenges, opportunities, experiences, and perspectives, especially in a broader context. The learning environment in the post-Covid semester. This is mainly because the understanding of students' perception about the use of technology in the post-pandemic era highlights many successes and challenges needed to improve students' digital experience and run educational policies. For the purposes of this special issue, this study selects students' perspectives on technology-based use during the global pandemic to highlight challenges, opportunities, experiences, and perspectives, especially in a broader context. The learning environment in the post-Covid semester. This is mainly because the understanding of students' perception about the use of technology in the post-pandemic era highlights many successes and challenges needed to improve students' digital experience and run educational policies.

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A mixed method research design was chosen for this research. 38 participants were randomly selected using semi-structured interview questions and a five-item Likert-type questionnaire. A questionnaire was used to get the idea about the use of technology-based learning in the post-pandemic semester.

They found it

From the collected data, it was observed that even though students find the technique useful for learning, they feel bored when using it for educational purposes. Other novel findings from this study have helped to draw valid empirical conclusions on this topic.

Identity

This study contributes to the growing body of research examining the experiences and perspectives of students in using technology for learning in the post-pandemic semester. This study is the beginning of a broader discussion about the need to develop student-friendly technology for a better student learning experience.

Keywords: technology, learners, technology-based instruction, post-Covid-19 education

## Introduction

The COVID-19 pandemic has changed the world through virtual learning. Online and distance learning is used, for example, to maintain the continuity of education after the earthquake. The scale of the current crisis is unprecedented. It is also time to predict the long-term impact of this situation and how education will look around the world after COVID. For some, a direct return to bodybuilding tradition is necessary. But for many students, the sudden transition to online education is a time of change and rethinking of education delivery.

Online education is considered a viable alternative path for older students seeking higher education. However, the emergence of the COVID-19 pandemic has forced teachers and students at all levels of education to quickly adapt to virtual classrooms. (The term "emergency distance learning" was coined at the beginning of the pandemic to describe the temporary nature of this transition.)

## Objectives of the study

The COVID-19 pandemic has led to fundamental changes in education, such as technology, that require rethinking the purpose of education.

- ❖ **Ensuring access to quality education**
- ❖ **Enhancing student engagement and motivation**
- ❖ **Promoting personalised learning**
- ❖ **Encouraging collaboration and communication**
- ❖ **Developing digital literacy skills**

Overall, the objectives of technology-enhanced education in the post-COVID-19 era will likely focus on leveraging technology to improve access to quality education, enhance student engagement and motivation, promote personalised learning, encourage collaboration and communication, and develop digital literacy skills.

## Review of Literature

The COVID-19 pandemic has forced educational institutions around the world to shift to distance and online learning. This transition has led to an increased focus on technology-enhanced education, which involves the use of various digital tools and platforms to enhance the teaching and learning experience. In this literature review, we will examine the recent research on technological-enhanced education in the post COVID-19 era.

### *Technology-Enhanced Education in the Pre-COVID-19 Era*

Prior to the COVID-19 pandemic, technology-enhanced education was gaining momentum, with an increasing number of institutions adopting online learning and digital tools to enhance teaching and learning. For instance, according to the National Center for Education Statistics (NCES), the number of students enrolled in distance education courses increased from 1.6 million in 2002 to 6.9 million in 2018 (NCES, 2020). Studies have also shown that technology-enhanced education can lead to improved learning outcomes, increased student engagement, and greater flexibility and accessibility (Makoe, 2015; Bower et al., 2017).

### *Technology-Enhanced Education in the Post-COVID-19 Era*

The COVID-19 pandemic has commenced the adoption of technology based education, with educational institutions around the world implementing online and hybrid learning models. Research has shown that while this transition has presented several challenges, including lack of access to technology and internet connectivity, it has also led to increased collaboration and innovation in the education sector (Alzahrani et al., 2021; Khalil et al., 2021). Moreover, studies have demonstrated that technology-enhanced education can help to overcome some of the challenges associated with traditional face-to-face learning, such as time and location constraints, and can provide opportunities for personalized and adaptive learning (Huang et al., 2021; Wang et al., 2021).

### *Digital Tools and Platforms for Technology-Enhanced Education*

A wide range of digital tools and platforms are available to support technology-enhanced education, including learning management systems (LMS), video conferencing tools, interactive whiteboards, and virtual and augmented reality (VR/AR) tools. Research has shown that the effective use of these tools can improve student engagement and motivation, facilitate collaborative learning, and support personalized and adaptive learning (Gamage et al., 2021; Yalman et al., 2021). However, it is important to note that the success of technology-enhanced education depends on the effective integration of these tools into the teaching and learning process (Bower et al., 2017).

One of the critical advantages of technology-enhanced education is its flexibility, allowing students to learn at their own pace and in their own time. This option can be particularly beneficial for students who may struggle in traditional classroom-based settings and those juggling work or family commitments alongside their studies.

Online learning can also provide opportunities for students to access resources and expertise worldwide, opening up new avenues for learning and collaboration.

However, there are also challenges associated with technology-enhanced education. One of the critical concerns is the potential for students to become disengaged or overwhelmed by the amount of digital content and resources available to them. This can be particularly problematic for students needing help with self-regulation and time management or needing more digital literacy skills to navigate online learning environments effectively.

Another critical challenge is ensuring that technology is used in a way that supports, rather than replaces, traditional teaching methods. While technology can provide valuable support for teachers and students, but it cannot replace the human interactions and connections at the heart of effective teaching and learning. As such, it is essential to strike a balance between the use of technology and more traditional classroom-based teaching methods.

It is vital to ensure that technology is used to promote, rather than replace, traditional teaching methods, and that the appropriate strategies and tools are in place to support effective teaching and learning outcomes.

## Conclusion

The COVID-19 pandemic has accelerated the adoption of technology-enhanced education, leading to increased collaboration and innovation in the education sector. While challenges remain, research has demonstrated the potential benefits of technology-enhanced education, including improved learning outcomes, increased student engagement, and greater flexibility and accessibility. The effective use of digital tools and platforms can support these outcomes, but it is important to integrate these tools into the teaching and learning process effectively.

## RESEARCH METHODOLOGY:

### Data

#### Size of the study

38 members of the general public was the target audience or respondents for this questionnaire. Duration of the study was 13 days. The main focus was on Technology-Enhanced Education in the Pre-COVID-19 Era.

#### Source for data collection

The data was collected by using Primary and Secondary sources of data collection.

The primary data was collected through the medium of questionnaire. It was prepared keeping in the target respondents and questions were asked accordingly. And through the same data collected, we prepared graphs, analysed.

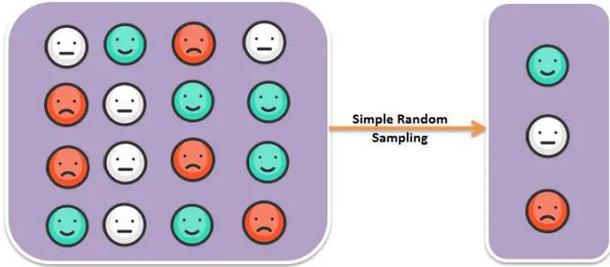
The data collected is first-hand and can be used to build a better understanding of Technology-enhanced education in the post-COVID era.

The secondary data collected is published information. The information collected are from reports, internet.

#### Sampling techniques

Simple Random Sampling Technique was used for data collection as this method involves a subset of selected population and all participant of this takes an equivalent coincidental of presence certain or getting selected. It is more of a straightforward method comparing to all other methods because it involves of

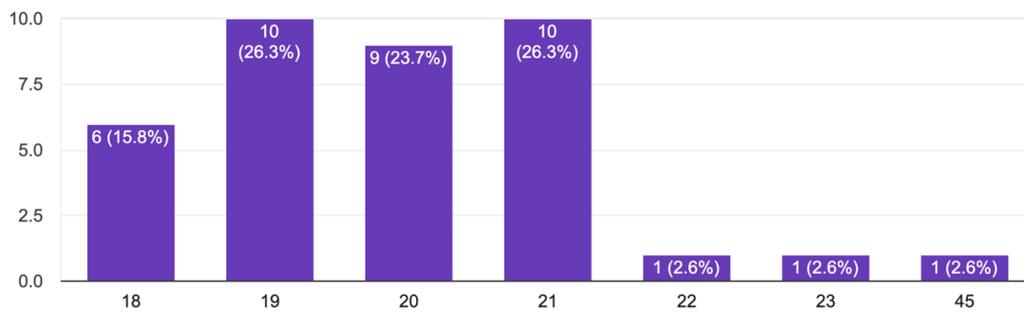
choosing a single random selection and requires mere or a tiny bit of intelligence or knowledge about the chosen population.



## Data Analysis

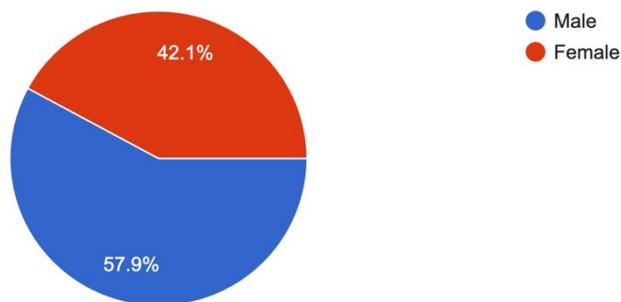
### Age

38 responses



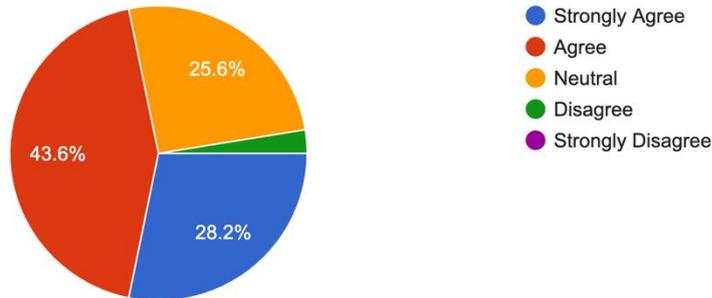
### Gender

38 responses



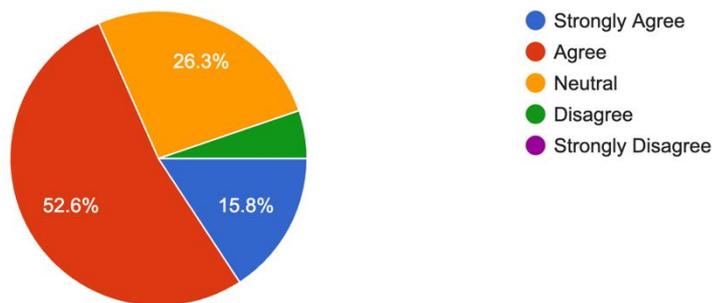
The use of the weekly online study plans has been helpful for your learning experience.

38 responses



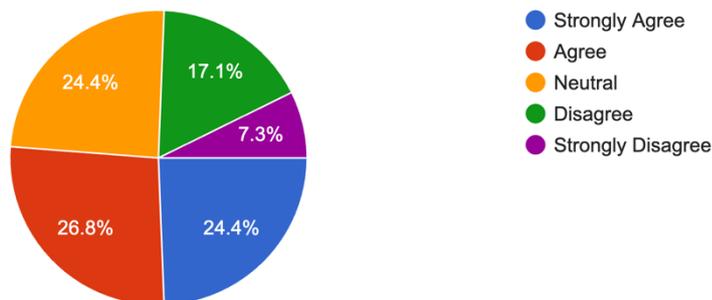
Interim presentation and live online formative feedback will be helpful for your learning experience.

38 responses



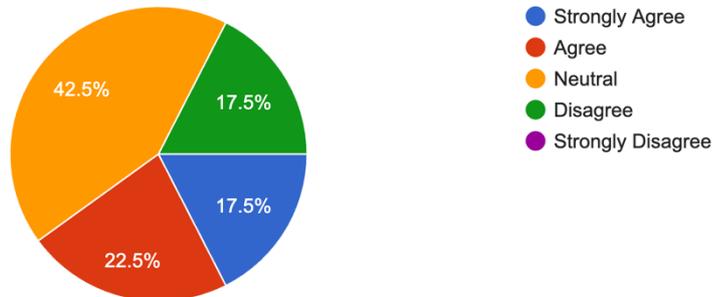
Students attending live online sessions should be expected to switch on their cameras for the duration of the session

38 responses



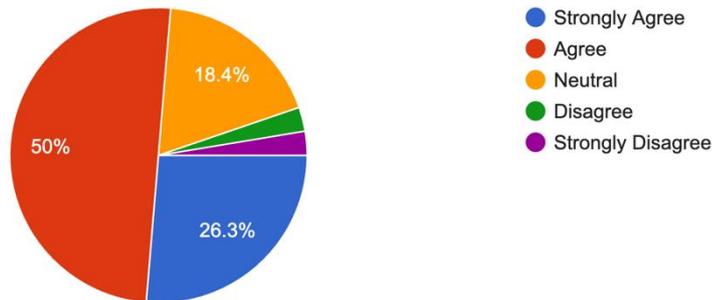
Switched on cameras will be helpful for your learning experience during the live online discussion sessions

38 responses



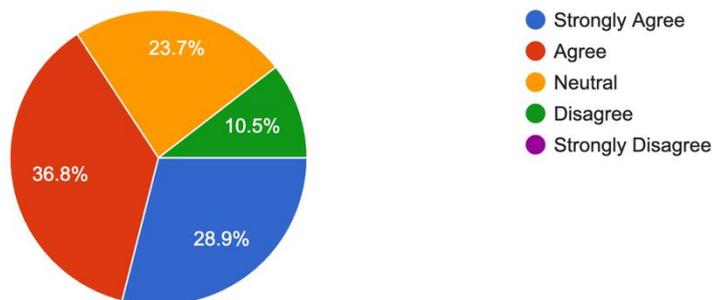
The computer and the technology you used are good enough for online learning and teaching.

38 responses



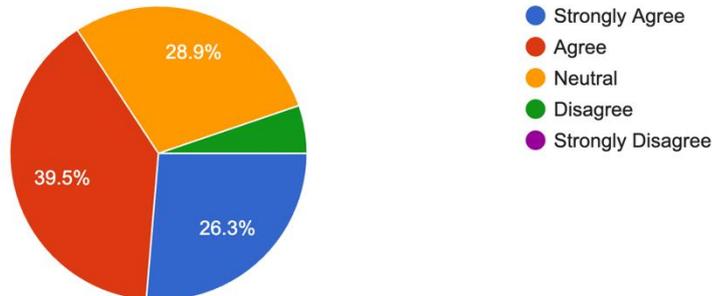
You have had access to fast and stable internet connection

38 responses



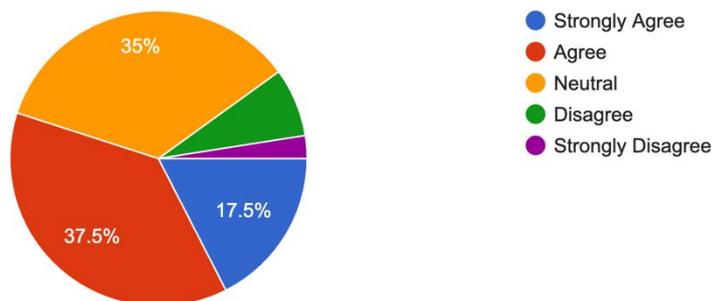
Your accommodation/home environment has been appropriate for online learning and teaching

38 responses



How satisfied were you with the quality of the online learning and teaching?

38 responses



## Findings of the study

The COVID-19 pandemic accelerated the use of technology in education as schools worldwide were forced to shift to online and hybrid learning models. Studies conducted before the pandemic had already shown that technology-enhanced education had several benefits, including increased student engagement, improved learning outcomes, and increased access to education for learners unable to attend traditional classes.

However, the sudden shift to remote learning during the pandemic helped highlight the challenges of implementing technology in education, such as the need for infrastructure and training to support online learning, the potential for technology to exacerbate existing inequalities, and the importance of maintaining social interaction and emotional support for students.

Technology is a powerful tool for enhancing education. However, its success depends on careful planning, implementation, and ongoing evaluation to meet all learners' needs. As education systems adapt to the post-COVID era, it will be essential to consider how technology can be used effectively and equitably to support teaching and learning.

### Limitations

Despite conformity with ethical norms, the sample size was the study's principal weakness. It was a modest group of people who took part. The paper notes that investigations with greater sample numbers may yield different and exciting results on a similar topic. Although extra statistics from the interviews were utilised to augment the data acquired to increase the study's conclusions, we anticipate that future studies on a similar topic will need to ensure that prominent individuals are recruited in order to gain a thorough understanding of the phenomenon under investigation.

### Recommendations and Discussion

The study discovered evidence that learners thought that using technology during post-pandemic education helped language learning after rigorous investigation. This finding is consistent with the findings of other studies, which claim that technology plays an important role in achieving positive learning outcomes among students. More specifically, the findings are consistent with research that show that technology improves language learning, particularly amid the recent global crisis. Despite the fact that technology was regarded to improve language acquisition, the study discovered that learners perceived using technology for educational purposes to be challenging. Though the study provided reasons for this conclusion, other studies have suggested that learners and teachers may struggle with employing technology for teaching and learning.

Given these findings, several research have emphasised the importance of technological literacy, predicting that it will help learners and teachers overcome challenges when utilising technology for educational reasons. Furthermore, the survey discovered evidence that students believe excessive usage of technology leads to boredom. This finding is consistent with current research on online teaching and learning, which suggests that long periods of online instruction should be avoided since they can lead to boredom, disengagement from online instruction, and a lack of motivation among students. Given these findings, it

is not unexpected that the study discovered that students advocate for the use of learner-friendly technologies for teaching and learning, as other writers have recommended.

Furthermore, when the questionnaire results were analysed, a similar result was achieved as learners regarded technology to aid language acquisition, which is consistent with the previous studies. Nonetheless, contrary to the assumptions of previous studies on technology use in education, our findings suggest that technology learning platforms may have been more user-friendly. This supports the preceding conclusion that learners prefer learner-friendly technology for teaching and learning. Similarly to other research that have found that technology makes learning more fascinating and encourages active classroom engagement, our study found that learners view technology as useful in improving lesson delivery and classroom participation.

## Conclusion

It is a better alternative for learners to choose what courses to learn and their convenience. The purpose of this study was to investigate the perspectives of youth or learners on the usage of technology-based training during the post-pandemic semesters. According to the findings of a detailed analysis, preservice teachers considered employing technology-based platforms as an efficient way to language teaching and learning. This allows us to conclude that throughout the post-pandemic semesters, the young saw the employment of technology as a preferable approach to teaching and learning. This conclusion is reached as a result of the multiple benefits associated with the employment of technology-based learning tools.

Furthermore, our study discovered evidence that, while technology was regarded to improve language acquisition, learners perceived making use of technology for educational reasons as difficult. The empirical evidence in studies reporting on the necessity for student and instructor digital proficiency to handle technological aids for seamless online course delivery is the sole justification for this phenomenon. Though no reasons were given and may be specific to this educational context, this study cautions that technology incorporation in the distance learning space must be carried out with care and decorum to guarantee that the goals of applying technology to learn.

Long online lessons that bore learners should be avoided, according to this study, in order to improve online training and the use of technology for learning.

However, further research is required to corroborate the kind of conclusions reached in this study. We discovered that the learner considers the application of electronic devices for purposes of learning as complex, albeit this conclusion requires clarification. Future research on this area could provide other explanations for the learners' various problems. Furthermore, there are suggestions for learning technology education, particularly in light of recent worldwide pandemics.

Such research could provide answers to these questions as well as solutions to the problems that students confront when using technology for purposes of learning. Future research could look into the phrase "excessive use of technology." During the pre-pandemic semester, the only way to assure learning continuity was to use technology. Determining this crucial use of technology for learning, particularly when the world's options are limited, may necessitate additional research. Nonetheless, our study's findings revealed that, while technology was viewed as a great way to learning, other areas of technology use needed to be addressed in order to guarantee that learners experienced maximum happiness when utilising technology during recent times.

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