

Future of Higher Education: From the point of view of the prospective students

Bella Margarian
Cambridge College
500 Rutherford Ave.
Boston, MA, 02129
USA

Abstract

The education sector hit hard by the COVID-19 pandemic. Schools across the world were forced to shutter their physical campuses in the Spring of 2020 and shift to online instruction. For higher education institutions, this meant delivering courses and the classroom experience through videoconferencing and various virtual connectivity tools. Colleges and universities took a cue from the early adopters of online education institutions and companies that have been refining online education for a long time.

The approach worked to support students through a period of acute crisis but stands in contrast to the offerings of online education pioneers. These institutions use AI and advanced analytics to provide personalized learning and on-demand student support and to accommodate student preferences for varying digital formats.

The pandemic is likely over, or the dangerous and urgent consequences of the virus are in the past, and most people feel much safer compared to the Spring of 2020. Businesses and employees are getting back on track. However, having experiences and conveniences of “remote living and working” still delays the life before the pandemic life. This manuscript shows the results of a survey taken from 1412 students showing the preference of the prospective students and analyzes the available alternatives for universities and colleges.

Keywords: Hybrid, challenge, virtual, higher education

Introduction and Background

The COVID-19 pandemic has had a significant impact on educational institutions worldwide. According to UNESCO, close to 1.4 billion students of all ages were affected by the disruptions caused by the pandemic[1]. In response, colleges and universities have had to expedite their transition to online curricula. Faculty, administrators, and staff have had to work remotely to ensure the safety of students and to facilitate the continuation of their studies. However, this transition has been fraught with challenges, including logistical issues, inadequate hardware and software, and the need for curriculum and assessment adjustments. Many students and teachers have had to adapt quickly to remote learning, but not all have had access to digital devices, the internet, or sufficient bandwidth, highlighting the digital divide. Educational institutions have had to develop robust online programs, ensure adequate instructional design and technology staff, and provide structured support mechanisms for students. Despite the challenges, professors have pioneered new methods, and educational tech companies have developed platforms at an unprecedented pace, demonstrating the potential of online education. Faculty and students who had previously not considered online learning as authentic education had no choice but to try it. Faculty members had to acquire new technological skills, and institutions with limited online presence had to deploy large numbers of emergency remote courses almost simultaneously, demonstrating the scalability of online learning.

In recent times, remote courses, student support services, graduation ceremonies, and campus tours have become ubiquitous. It is worth noting that the scale and speed of the transition to online learning would have been considered infeasible just a few years ago. However, the unstructured shift to online teaching and learning has resulted in the adoption of more broad-based online learning strategies and technologies, thereby creating a prototype for excellence in online education.

The pandemic created a significant educational gap, and institutions were quick to respond by increasing the quantity and quality of online courses. The positive experiences during this period offer hope for long-term outcomes. However, it will require time, effort, and innovative resources to improve on these gains and make them sustainable [2].

What is next? The restrictions have heightened the importance of online education in higher education and increased the demand for online and distance education. Now that the pandemic or at least surprises due to the pandemic is over, several questions arise. How those information and communication technologies will be used in the future? How would institutions proceed from now on? What can we expect from virtual learning? How does virtual learning impact student outcomes compared to in-person learning? How does virtual learning impact student outcomes compared with in-person learning?

Everyone has become accustomed to working and studying remotely This manuscript analyzes data from 1412 prospective higher-education students from several universities and colleges in the Greater Boston area to explore these questions.

Methodology and analyzing data

There are mixed research results regarding in-person and remote education, yet the higher education community still regards entirely online courses with doubts. Many educators have been skeptical of online learning.. On the one hand, research suggests that students who complete online courses learn as much as in-person instruction, earn equivalent grades, and are equally satisfied, but also, on the other hand, online students are less likely to complete their courses. The main concern is the administration of the discussion-based and hands-on classes, which require more intimate settings. Institutions are concerned about online course performance, especially among underprepared or underserved students, mainly at the undergraduate level. Academic institutions don't want to be seen as limiting access to education and also threatening the physical campus's existence, faculty redundancy, and reducing exclusivity of their programs, for which vast resources have been allocated over centuries. But mean time the effect and inclusivity of remote learning is overwhelming.

For the context of this manuscript which is to plan the future by building on previous works in higher education, assessing the efficacy of online vs in-person education, and examining the prospective student's preferences and feedback regarding in-person vs online course, 1412 prospective students have been questioned. All students planned to attend private universities for undergraduate or graduate studies in the greater Boston area during the academic years of 2022-2024. The responses to the questions were categorized by undergraduate and graduate, age groups of traditional students who could have a job (part-time or full-time) but are not entirely responsible for the financial well-being of their own families and have financial support, and adult learners who have full-time or several part-time jobs and are accountable for their family resources.

Analytic Methods

Research question 1: Have you taken an online class?

About 1285 (91%) of questioned students have taken online courses in the past two years, and shown in chart 1 as OL and 127 students never had an online course (NO)

Research question 2: If you answered yes to question number 1, have you found that online classes are (choose one) and why?

- a. The same as regular classes
- b. Easier than regular classes
- c. More difficult than regular classes

Among the 1285 students who undertook online courses, a substantial 86% (1105 students) reported that online-only classes proved more challenging than traditional courses (as evidenced in Chart 1). Specifically, in the comments section, students expressed concerns regarding their perceived disconnection from the academic community and the stressful situations they faced, compelled to navigate the coursework independently. Furthermore, of the students who found online courses more challenging, a significant 84% (928 students) were undergraduates (UG). Only a mere 11% (141 students), however, felt that online classes equated to traditional classes (SA), as delineated in Chart 1.

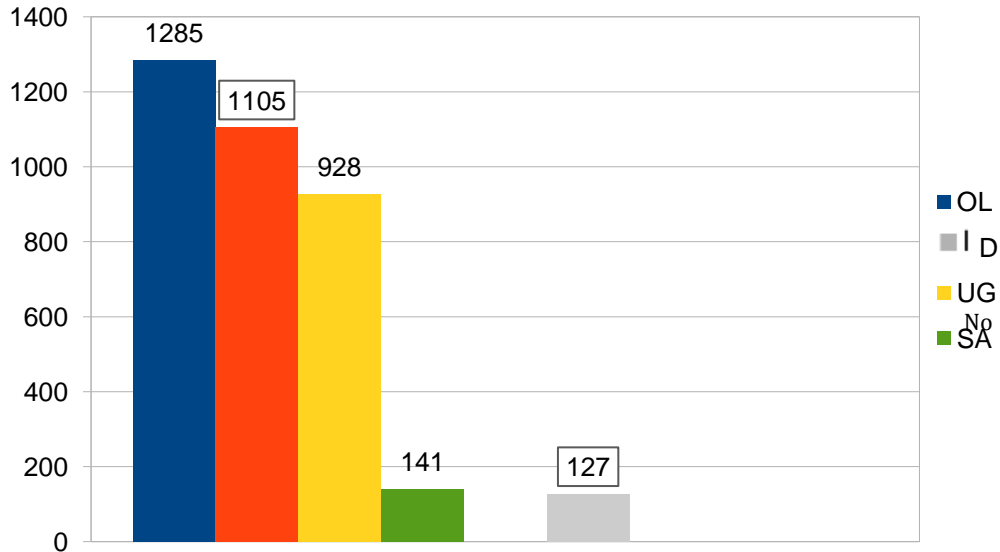


Chart 1; data showing results of the prospective students answers to the questions No 1 and 2.

Research question 3: Do you prefer regular, hybrid, or online classes? Why?

- a. Prefer regular classes
- b. Prefer hybrid classes
- c. Prefer online classes

The question aimed to investigate students' preferences for regular, hybrid, or online classes and the underlying reasons for their preferences. Among the total of 1412 students who participated, 1256 (89%) preferred hybrid classes, as evident from chart No. 2, designated by the abbreviation HY. Conversely, only 127 (9%) students opted for regular in-seat classes, abbreviated as RE, and all of these students were international students. Notably, only 29 students (2%) chose online courses only, abbreviated as OL, and all of them were adult learners.

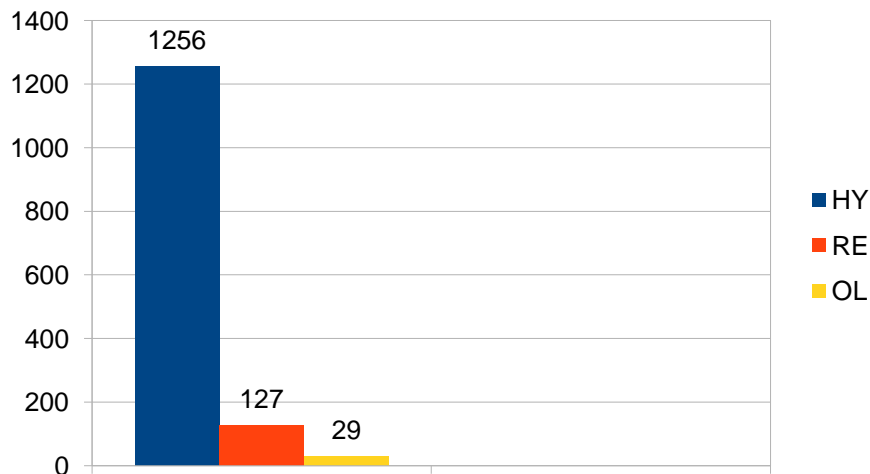


Chart 2; data showing results of the prospective students answers to the questions No. 3.

Research questions 4: Would you recommend online classes to a friend? Why?

- a. Yes
- b. No

All students accepted recommending online classes to their friends if conditions were right.

Research questions 5: How do you feel overall about distance education/ in person?

- a. Poor
- b. Below Average
- c. Average
- d. Good
- d. Excellent

The fifth research inquiry pertains to the overall sentiment towards distance learning in comparison to in-person instruction. The scale of measurement entails five options, namely, poor, below average, average, good, and excellent. The data from chart No. 3 indicates that only 14 students, roughly 1% of the total group, reported feeling below average about online education (BA). Conversely, a notable proportion of 339 students, constituting 24% of the sample, expressed a resoundingly positive sentiment of excellent (EX) towards online classes. Additionally, the vast majority of 917 students (65%) affirmed that they felt good (GO) about online instruction. Finally, 142 students (BD) reported feeling below average or poor regarding online courses.

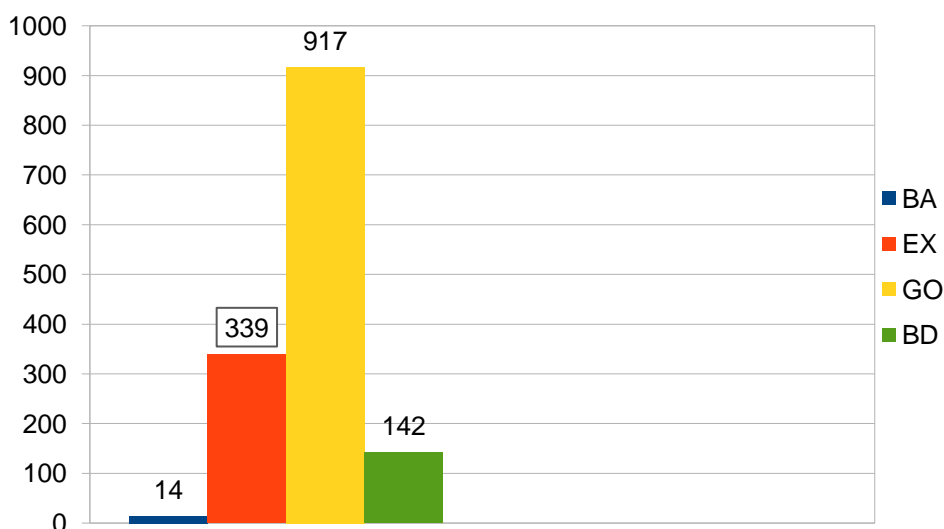


Chart 3; data showing results of the prospective students answers to the questions No 5.

Research questions 6: How effective has remote/ in person learning been for you?

- a. Not at all effective
- b. Slightly effective
- c. Moderately effective
- d. Very effective
- e. Extremely effective

This question was centered on the efficacy of remote and in-person learning. The question was designed to evaluate the effectiveness of both modalities and featured five options that ranged from "not at all effective" to "extremely effective." Out of the total number of students that were surveyed and shown in chart No 4. 960 students, or 68%, found remote learning to be very effective (VE), whereas 452 students, or 32%, regarded it as moderately effective (ME). Notably, 87% of the students who found remote classes to be very effective were graduate adult learners, comprising a significant proportion of the study's population. These findings suggest that remote learning has been highly effective for the majority of students and may have particular value for adult learners pursuing graduate-level education.

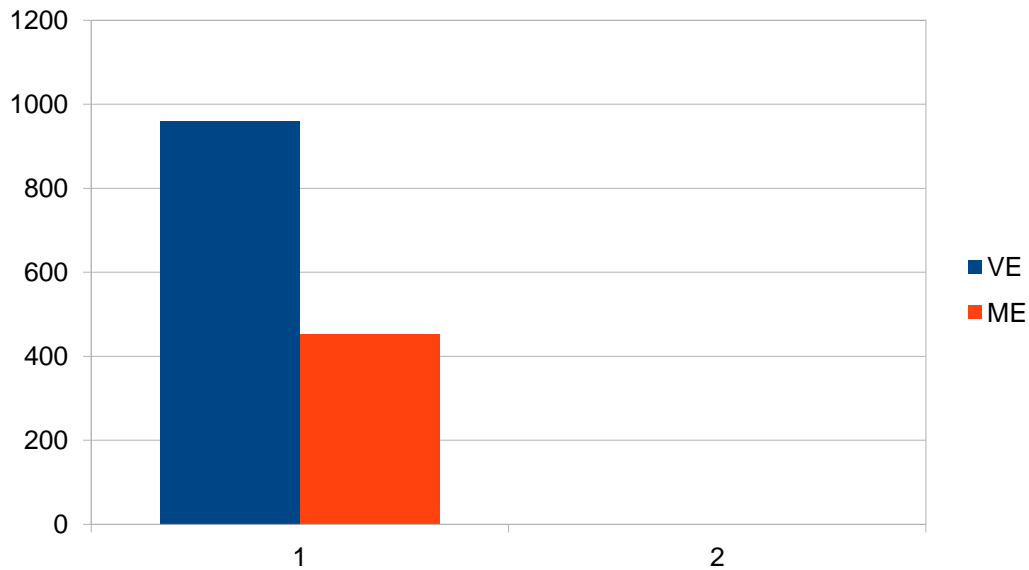


Chart 4; data showing results of the prospective students answers to the questions No 6.

Research question 7: How stressful is distance/in-person learning for you?

Research question 8: Do you prefer learning remotely or in person?

Prospective students have provided insightful feedback highlighting the challenges faced by students in online programs or those attending online classes. Specifically, students in these settings may experience a sense of physical disconnect from traditional classroom settings, leading to a need for greater direction, motivation, and discipline than their in-person counterparts.

Furthermore, the feedback suggests that hybrid online courses that incorporate additional resources and time beyond what is included in face-to-face courses, are more positively received by students.

Recommendations

The response to the pandemic has resulted in significant improvements in online teaching and learning, and these gains can be sustained and expanded upon. This can lead to enhanced quality and distribution of online education and scaling of innovations for broader applications. The vast majority of theoretical content in science, computer, and finance can be delivered asynchronously online, in addition to in-person classes.

Academic institutions must create parallel online degrees, programs, and courses, leveraging the benefits of online learning, including reduced costs, increased efficacy, and time savings. The development of high-quality hybrid courses requires collaboration between faculty, technology, and instructional design experts to improve classroom instructions and integrate technology[3]. Students must assess their baseline knowledge at the beginning of the course to identify knowledge gaps required for the course outcomes [4]. This step can be particularly helpful for students who have had unequal educational opportunities, confirming their mastery of course requirements and allowing them to progress faster through the course material. Universities must provide detailed information about courses and curricula, including profiles of past students, sample reports and evaluations, and grade distributions to help students make informed decisions about their studies [5]. These measures facilitate easy learning without geographical and time constraints. Breaking up the educational process into manageable tasks can also potentially ease anxiety.

It is essential to note that technology is only one element of creating smooth connections between students and educators while remote students usually face a wide range of distractions. Therefore, online course content should be more engaging than in-person courses. Educational institutions must offer a system allowing students to navigate coursework, complete lessons, and see future tasks and content. The system can provide reminders about deadlines, motivational tips, performance reviews, and exam preparation materials[6,7], allowing instructors to engage students with peers and tutors.

The system should help students build a strong network of peers and professors, add social events to promote school events, and encourage students to attend student gatherings and social networking events, both in-person and virtual. Universities must incorporate group activities and collaboration with classmates into their hybrid course formats, ensuring no roadblocks to synchronous and asynchronous learning. The transition to "hybrid" classes that combine online learning components with in-person class meetings and blended learning activities on and offline, channeling efforts into advanced teleconferencing, and distance learning platforms with streaming video and asynchronous discussion boards, not only will not change the fundamentals of university education but would improve the achievement of students and would heighten engagement online.

For courses with intimate and hands-on requirements, such as science labs, studios, music conservatories, and other specialized learning environments, well-developed digital simulations, educational video games, augmented reality, and hybrid models, virtual reality, and interactive learning applications can substitute for traditional lab or studio learning environments. Institutions can consider alternative approaches for students with poor network connections, such as pre-packaged instructional materials made available through CDs, flash drives, e-books, or mobile media combined with printed materials. By doing so, universities can raise their pedagogical standards.

Conclusion

Online course-taking has significant implications, particularly for students who are academically underprepared, especially those seeking bachelor's degrees. Ultimately, online education may result in reduced college completion rates due to the need for greater interconnectivity with peers and faculty in the virtual environment. Despite this, there is evidence that more motivated and focused students can efficiently complete their degree requirements faster through online education.


While it is widely acknowledged that online education cannot replace in-person education in terms of comprehensiveness and satisfaction, universities need not abandon in-person education or rely solely on virtual education. Both brick-and-mortar and remote/virtual education systems have their own intrinsic value. Combining these two forms of education through hybrid education would enhance education even further.

In the hybrid learning environment, it may be more challenging to establish interpersonal connections and create a caring network. By providing dedicated channels, leading hybrid education programs can assist students with academic, technological, administrative, and other difficulties, as well as provide a means for students to connect [8].

Colleges and universities must develop system-wide initiatives that sustain pedagogical gains and foster a lasting innovative culture. Academic institutions should anticipate a continuing need for new modes of instruction and find ways to support students in their choice of learning, as it benefits both students and institutions.

Well-designed hybrid courses would be very effective compared with traditional classroom instruction. With a reasonable and creative approach, hybrid learning delivery can evolve from an emergency-fueled crisis reaction into a way of rethinking how to plan, improve, and best deliver online instruction.

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