

# Student Engagement During COVID-19 and Beyond

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Higher education is increasingly expected to meet the needs of current and emerging generations to ensure that there is a viable workforce that can positively contribute to the economy of the future. Demographic changes and massive online education were already changing higher education, the current pandemic is an additional disrupter that has caused all universities to shift from face-to-face instruction to remote teaching. The pandemic caused faculty, staff, and students to quickly shift to several modalities (hybrid and/or fully virtual) simultaneously. Faculty implemented new teaching methods, adjusted their expectations in the amount of work, and in its quality. Universities provided laptops, mobile hotspots, and emergency support including food and funds to support students in need.

Virtual learning was previously an option in higher education as it can be more flexible, convenient, and customizable. Now virtual learning is the main form for all students to learn. Students can improve writing skills and tech-savviness, which is becoming increasingly important. Virtual class interactions can involve live chats, discussion boards, and emails. Students may feel less intimidated with virtual learning and may participate more. However, students may also feel isolated, frustrated, their interest in the subject matter, and effectiveness in learning may decline. As virtual learning is commonly self-paced, students may need to be more self-disciplined to successfully complete coursework. This is especially true if there are varying distractions in a home environment.

Prior to the pandemic, students in higher education were already in distance, or online learning modes. In 2018, among 16.6 million undergraduate students, 34% were enrolled in a distance education course and 14% were exclusively taking distance courses (Hussar et al., 2020). Among 3 million graduate students, 40% were taking a distance course and 31% were exclusively taking online courses. This suggests that educators in higher education were likely more prepared for a virtual transition. The pandemic fully propelled virtual learning for Millennials and Generation Z. Gen-Z is considered the most tech-savvy generation; however, several factors can inform their pursuit of higher education and academic success in light of the pandemic.

This white paper provides an overview about student enrollment in higher education, Generation Z, and current research about virtual learning and student outcomes that can inform future approaches. This paper discusses student enrollment based on data from Fall 2020, it focuses on Generation Z as they are the major cohort that are in higher education and will be entering in the future, it discusses key findings from research in the effectiveness of virtual learning compared to traditional face-to-face courses, includes a discussion of key points and how Edulla can provide support.

# Higher Education Enrollment During the Pandemic



Overall, undergraduate enrollment declined in Fall 2020, while graduate enrollment increased slightly. According to the National Student Clearinghouse Research Center (2020), during Fall 2020, undergraduate enrollment declined by 4.4% compared to last year, and graduate enrollment increased by 2.9%. The largest decline in enrollment was in community colleges (-9.5%), private non-profit four-year colleges (-2.1%), and public four-year colleges (-1.9%). Freshman enrollment was notably down in Fall 2020 by 13% among all higher education institutions; however, community colleges had the largest declines among Native-American, Hispanic, and Black students. Declines in enrollment among first-time male students were also notable. The steepest declines in overall undergraduate enrollment occurred were in South Dakota, New Mexico, Alaska, and Indiana. For graduate enrollment, for-profit four-year institutions experienced the greatest rise in enrollment (+7.4%), followed by public four-year institutions (+3.6%). Graduate enrollments in Mississippi, Virginia, and New Hampshire were especially notable. States that experienced overall increases in both undergraduate and graduate enrollment were Idaho, New Hampshire, Utah, and West Virginia.

In Fall 2020, enrollment in primarily online institutions increased by 6% for students pursuing undergraduate and graduate degrees (National Student Clearinghouse Research Center, 2020). Prior to the pandemic, many Gen Z students were already enrolling in universities that offered online degrees based on their convenience and flexibility (Schwartz, 2020). Some of these universities included Western Governors University, Southern New Hampshire University, and University of Maryland Global Campus. These universities have programs with lower costs compared to traditional four-year universities. Some of these university online programs also offer employee benefits to cover costs of tuition if a student-employee works for a specific company.

Due to the pandemic, prospective higher education students are considering different options. In a survey conducted with high school students between Spring 2020, 70% wanted to create their own educational path, and about 50% were considering an education other than a four-year degree (St. Amour, 2020). About 75% of students expressed interest in a career-based education such as nursing, STEM, or learning a trade skill. Based on their experiences with the pandemic, more than half believe that their learning experiences will suffer if there is less time in a classroom.

# Who is Generation Z?

Gen-Z were born approximately between 1995 to 2012, and are already entering college (Barnes & Noble College, 2018). Members of Gen-Z are more independent than Millennials, practical, financially-driven, and are self-learners who are considered “digital natives.” They grew up with greater access to digital tools, such as the Internet, computers, and mobile devices compared to previous generations. They are also more likely to be from lower-income backgrounds, time-stressed due to job or family commitments, from diverse backgrounds, and face mental health stresses (Mintz, 2019). Approximately 57% are White, 27% are Hispanic, and 17% are Black (Next Generation, 2019). Administrators, faculty, and staff must consider all of these factors for student recruitment, retention, and to properly support student success.

Based on previous research with Gen-Z students, many expressed interests in going to college. In a survey, approximately 90% considered college to be valuable and an important path towards future employment (Barnes & Noble College, 2018). They are interested in learning, can process extensive amounts of information, and seek challenges as an opportunity for further engagement in their learning. Many students, 82%, planned to go directly from high school to college, and 77% planned to attend a 4-year college or university. The top 3 factors they were considering when choosing a college includes career preparation, interesting coursework, and having professors that care about their success. They look for information about colleges online, through school websites, from teachers or counselors. Gen-Z students were already preparing for college with many older teens taking a class for college credit, 49%, and young teens planning to, 84%. Even though these college courses are challenging, 64% of Gen-Z students expressed that they enjoyed them more than their regular classes. With the virtual transition in Spring 2020, more recent research is necessary to verify current sentiments among Gen-Z.

# Generation Z's Education Aspirations

Entrepreneurial has also been used to characterize Gen-Z. Approximately 35% of Gen-Z have their own business or plan to have one in the future (Barnes & Noble College, 2018). Teenagers between 13-15 are more likely to already have online businesses compared to older teens. Based on earlier access to technology where they could do their own research online, they are prepared to make decisions based on their individual assessment, rather than rely on family or friends. However, they do value face-to-face interactions, collaboration, and “learn by doing” experiences; 51% expressed preference for learning by doing compared to by seeing, 38%, and listening, 12%. Gen-Z believes that using more technology in the classroom can provide more hands-on experiences. Technologies previously used by students included websites such as Khan Academy, Skillshare, and Canvas; they also find the following tools to be helpful: smartboards, “do it yourself learning,” digital textbooks, websites with study materials, online videos, game-based learning systems, social media-user generated content, and podcasts.

In anticipation of college, Gen-Z expects a good value for their education, transparency in price, and seek information about their return on their investment for their future (Chronicle of Higher Education, 2019). Approximately 57% believe that the goal of college is “to prepare its graduating students for a specific career” compared to preparing students for life in general. They seek resources for academic, professional development, and personal well-being, including tutoring, career support, mental health services, potentially with virtual services accessible through mobile devices. They feel comfortable learning with technology, and seek project-based, hands-on learning, or undergraduate research experiences that can give them skills they can apply in the future.

Technology in education has been advancing to support the needs of both Millennials and Gen-Z students (Pearson, 2018). In a survey prior to the pandemic, both groups felt positive towards the future of technology to enhance their college learning experience; however, more millennials, 66%, believed that technology could transform learning at universities in the future compared to Gen-Z, 59%. More Millennials also generally preferred online courses with video lectures, 44% and eTexts, 36%, compared to Gen Z, 32% and 25% respectively. Although Gen Z are digital natives and self-learners, 78% expressed that their teachers are very important to their learning and development, and 39% prefer learning with a teacher providing instruction. As previously discussed, 57% prefer in-person activities with their peers, and only 22% prefer self-directed learning. Youtube is a leading tool to learn, and many Millennials and Gen-Z students use interactive learning apps or games to learn.

As the post-pandemic is approaching, there are many uncertainties and challenges faced by administrators in higher education institutions. This includes determining realistic enrollment goals, maintaining strong communication with the university community, including prospective students (Clark, Fritz, & Fishman, 2020). Despite uncertainties and potential abrupt shifts that may occur, universities will be expected to be prepared to respond, continue to provide unique student experiences, and the university should be perceived as the best option for current and prospective students.

Evaluating strategies to engage with prospective students is critical especially as student enrollment in higher education is concerning. University websites are key sources of information for students who are unable to physically visit. Some universities have hosted virtual open days to engage with students as a strategy to increase enrollment. Personalized communication and outreach is expected to increase as a recruitment and enrollment effort with the use of technology (Alecou Valerkou, 2021; Clark, Fritz, & Fishman, 2020). Personalized communication is already occurring to increase enrollment (Nierenberg, 2021). To address the issue of lower number of applicants for enrollment in Fall 2021, a university in California spent time calling students who began their applications, but who did not submit them, and students who applied previously and were not accepted. Their individualized communication efforts helped reduce application gaps compared to the previous year. As students may have greater financial constraints, assessing pros, cons, and weighing different options will be essential. Creating a space for personalized communication with students can help build long term trust with current and prospective students (Clark, Fritz, & Fishman, 2020). Universities are expected to become more data-driven, especially as there is more activity on university websites and virtual courses. Developing a plan to analyze the data and use it to inform future decisions will be essential.

Technology is currently being used to support retention of current students, and this can inform practices to engage with prospective students. The pandemic spurred many universities to launch an early-alert system for faculty to inform university staff of students who may need additional support (mental health, tutoring, etc.). Additionally, in 2019, a chatbot robot that uses artificial intelligence to text was introduced in several universities to help students stay on track and meet graduation goals (Agrawal, 2021). Due to the pandemic, the chatbot became friendlier. Some chatbot names include “Billy Chat,” “CougarBot,” and “Csunny.” Overall, the bots are programmed to answer hundreds of questions, and new questions help build the bot’s base of knowledge. If the bot doesn’t know the answer to a question, they can send the message to a person. The pandemic has also caused students to also share their feelings and concerns with the friendly chatbots. Research suggests that texting students and using chatbots are effective and starting to be used more broadly throughout the US in California, Georgia, and West Virginia (Castleman & Meyer, 2020; McKenzie, 2019; Page, Lee, & Gehlbach, 2020).

Overall, technology is expected to be part of institutions’ strategic plans in the future. In a study by a higher ed service provider, Apogee (2021), they found that before 2015, approximately 65% of institutions included technology initiatives in their plans; however, after the pandemic, many more institutions developed technology initiatives to support online or hybrid learning. In an interactive report by Apogee, institutional leaders can view it to compare how their strategic plans compare with other similar universities as a benchmark (Burt, 2021). The data includes engagement strategies, retention, innovation, personalized learning, funding models, accessibility, and diversity. In a general assessment of the data, state and larger institutions have more aptly addressed technology and infrastructure in their strategic plans. The availability of this data aims to help higher education institutions refine and develop initiatives about technology in preparation for the post-pandemic.



# Conclusion

As students are inundated with information online based on their web searches, emails, and ads, it is critical to have highly accessible, clear, and consistent information to support prospective and incoming students. Our Edulla suite of products and services can help improve and maximize communication with our interactive software. Our AI chatbots can provide answers to incoming messages 100% of the time within seconds. These chatbots can support your admissions team in stimulating student interest and enrollment in a time and cost-efficient manner. Our Guide with screensharing options can be used by admissions staff to visually direct students through important processes in a live session. This can help increase online conversions to applications, highlight critical information, and improve student satisfaction. Our Knowledge Base provides an accessible platform for articles, FAQs, and can be seamlessly integrated with our chatbot and your university website.

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