

ACTION RESEARCH ON DETERMINING THE EFFECTIVENESS OF DISTRIBUTION OF LAPTOP AND POCKET WI-FI IN QUEZON CITY UNIVERSITY IN RESPONSE TO THE NEW NORMAL

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ABSTRACT

As the global community grapples with the far-reaching impacts of the COVID-19 pandemic, this research explores the effectiveness of the distance learning response undertaken by Quezon City University (QCU) in collaboration with the Quezon City (QC) Government. The study aims to evaluate the distribution of laptops and pocket Wi-Fi devices as critical components of QCU's strategy to adapt to the new normal in education. Amidst the challenges posed by the pandemic, QCU successfully procured 8,000 laptops and provided monthly internet allowances, demonstrating its commitment to facilitating remote learning. However, the study reveals that the distribution faced obstacles, resulting in 4,358 laptops reaching students by March 2021. Survey data collected from 5,893 QCU students sheds light on the reasons behind the low turnout, with 2,814 students opting not to borrow laptops. Notably, the study identifies various challenges faced by students in the transition to online learning, including unstable internet connections, lack of conducive study environments, and distractions from social media. The findings indicate that while the majority of students benefitted positively from the provided laptops, challenges persist. Respondents expressed a desire to return to face-to-face learning, emphasizing the importance of stable internet connectivity. To address these concerns, the QC Government allocated 5,225 pocket Wi-Fi units to ensure continuous interactions among students and teachers. Recommendations include comprehensive research and planning, a gradual transition to blended learning, additional equipment provisioning, and ongoing orientation and training programs. The study serves as a foundation for future research and aids in evaluating the efficacy of local government responses to the evolving needs of the education sector during the pandemic.

Keywords: *distance learning, Quezon City University, COVID-19 Pandemic, laptop distribution, higher education*

INTRODUCTION

The pandemic caused by the Coronavirus (COVID-19) has moved beyond the borders of individual nations. Every person, regardless of their ethnicity, degree of education, money, or gender, has been impacted by it. This, however, has not been the case with its effects, which have been felt by those who are most vulnerable.

Not even education is an exception. The catastrophe that was brought on by COVID-19 has significantly impacted practically every aspect of society, including the educational system. The COVID-19 outbreak that has been sweeping the world has shook the educational system around the world, but at the same time, it has given both chances and problems for institutions of higher learning (Toquero, C.M. 2020). The vast majority of educational institutions across the globe have decided to temporarily halt in-person instruction and transition to a model of delivery that is based on remote learning. There is little doubt that the coronavirus caused new vulnerabilities to become apparent in educational systems all across the world. (Zhang et al., 2020) Says that for society to be ready to meet unpredictability in the future, it needs education systems that are both adaptable and robust. At the same time as governments took precautions to prevent the virus from spreading further and to guarantee the continuity of the educational process, universities all over the world used online learning technologies.

It has been difficult to adapt to the sudden shift in the educational landscape that has occurred in the Philippines as a result of the pandemic. The nation's educational institutions were subjected to a lockdown in March 2020, which resulted in the closure of all campuses. As an alternative, they were required to make the transition from traditional learning techniques to online learning and digital tools, which are collectively referred to as "e-learning." During June in the year 2020, the Department of Health of the Philippines documented a total of over 30,000 positive cases across the nation (PDH, 2020). According to ABS-CBN News in the year 2020, the nation was rated twenty-first in the globe in terms of the number of deaths and cases of the coronavirus in October of that same year. Many people, including students, teachers, administrators, and other stakeholders, have been put under stress as a result of this public emergency (Tria, 2020). Because of this, there was a significant shift in the educational system, which resulted in the development of online learning, which is a method of instruction that is carried out virtually on digital platforms.

The leaders of educational institutions decided to implement the new standard in education as a response to these circumstances. To proactively respond to the disruption that the pandemic has brought about, higher education institutions (HEIs) in the country and around the world are required to take action. Campuses in a very large number of countries have been shut down because it is necessary to maintain social distancing in order to prevent the virus from spreading further. The mode of online learning has been adopted by a significant number of educational institutions. At the same time that the COVID-19 issue was unfolding, the Philippine Commission on Higher Education (CHED) was making preparations for the new standard in tertiary education, which will be implemented during the Academic Year 2020-2021. The adoption of flexible learning is one of the suggestions that the CHED has made for higher education institutions such as state universities and colleges as well as other HEIs (Baccay, 2020). Although, according to CHED, flexible learning may not necessarily mean that

instruction will be delivered entirely online (San Juan, 2020), online education is an unavoidable option that can help alleviate congestion in classrooms during periods of physical or social distancing protocol and contribute to the reduction of COVID-19 transmission in schools when schools begin to open their campuses and resume classes. To begin the implementation of their rules governing instruction and the opening of classes, several colleges have decided to begin doing so in August 2020. However, developing countries like the Philippines have regions that do not have a reliable or even existent internet connection, which poses a great and major challenge to full online instruction. Although it is possible to argue that a completely online mode of instruction is feasible (Cahapay, 2020), and even though Filipinos are among the top users of the internet worldwide (Oducado, 2019), this is not the case.

This pandemic issue has brought to light several deficiencies and inequalities that exist within our educational institutions. These include a lack of access to broadband internet and computers or laptops, which are essential for online education, as well as the support environments that are necessary for learning, and even a mismatch between resources and the requirements of the students. Concern was expressed among a big number of educators and pupils as a result of this sudden shift toward online instruction. This is due to the fact that a significant portion of the population has problematic internet access and a restricted number of electronic devices (Pastor, 2020). A significant number of governments are exerting significant efforts to guarantee the availability of opportunities for continuing education and to enhance their capability for excellent education, particularly for populations that are not as fortunate.

Quezon City (QC), being the largest and most populous city in the country, houses nine universities and 81 colleges including several specialized training centers and a large number of elementary and secondary schools. Numerous programs to expand educational access are also being implemented in the city. However, many young people are still unable to attend school due to their economic, social, and geographical limitations. Most people often cite the dire need for employment to financially support their families as the main reason why they chose not to go to school. It was because of this problem that the Quezon City Polytechnic (QCP) was established on March 1, 1994, by City Ordinance No. SP 171, under the name Quezon City Skills Training Center. The purpose of this establishment was to assist individuals, particularly those who are unable to attend formal education, in acquiring the skills that are necessary for employability and competitiveness. Following its elevation to the level of a university in the year 2001, the institution was rechristened as Quezon City Polytechnic University. Ordinance No. SP-2812, series of 2019, which changed its University Charter, renamed it once more as the Quezon City University (QCU) in July of 2019. This change made it eligible to be a beneficiary of Republic Act 10931, which is commonly known as the law that prohibits tuition fees.

Because of the rapidly growing number of COVID-19 cases in Quezon City, as well as the risks and concerns regarding the local transmission of COVID-19, the second term of the academic year (AY) 2019-2020, which runs from January to May 2020, was abruptly halted at the QCU around March. As a consequence of this, it was recommended that all program degree classes be moved to an online format until the term's conclusion. The University has decided to introduce online classes until the first semester of the academic year 2020-2021 (which will run from August to December 2020). This decision

was made due to the anticipated growth in the number of cases. Students are confronted with the issue of rapidly adjusting to the new standard in higher education settings as a result of the fast transition to full online instruction. As a contingency plan, the university decided to switch to online instruction to ensure that the courses that are currently being provided will continue to be taught and to allow students to finish their education.

Despite the challenges of COVID-19 and to provide quality education through distance learning, the city government has allocated over P124 million from its special education fund for the Academic Year 2020-2021 to procure laptops and other equipment for teachers and students (Galvez, 2020).

As the sole local government-funded university in Quezon City, the Quezon City University (QCU) took proactive measures to facilitate remote learning for its students. At the commencement of classes on August 5, 2020, QCU successfully procured 8,000 high-quality laptops. Additionally, the university committed to providing monthly internet allowances and pocket Wi-Fi to all enrolled students. QCU, with campuses in San Bartolome, San Francisco, and Batasan, projected a total enrollment of approximately 9,431 college students in the first semester and 8,765 in the second semester of the Academic Year 2020-2021.

The budget allocated for this initiative covered essential components such as a learning management system for virtual learning, internet connectivity for both students and faculty, computer software for all degree programs, online reference materials, and the development of an academic management system for online enrollment processing. Despite the challenges associated with the procurement process, including those induced by the COVID-19 pandemic, the university successfully delivered and distributed the laptops and other equipment for virtual learning in November 2020. As of March 2021, 4,358 laptop units had been distributed to QCU students.

QCU, with the support of the Quezon City Education Affairs Unit (EAU), remains committed to addressing students' needs for distance learning amid the pandemic. The EAU, mandated by Executive Order No. 6, Series of 2019, acts as the City Mayor's arm in implementing education policies, plans, programs, projects, and services to ensure the delivery of quality education at all levels. The QC Basic Educational Plan program of the EAU has proven valuable in adapting to the challenges posed by the COVID-19 pandemic. In addition to the laptops, the university procured approximately 9,750 pocket Wi-Fi units for both students and teachers, initiating their distribution at the Batasan Campus on May 4, 2021.

In light of these developments, the researchers conducted a study to assess the effectiveness of the laptop and pocket Wi-Fi distribution in QCU as a response to the new normal. The study utilized a survey organized by the EAU in May 2021, administered through online Google forms, and targeted at enrolled students during the academic semester AY 2020-2021.

The study will focus on Determining the Effectiveness of Distribution of Laptops and Pocket Wi-Fi in Quezon City University in Response to the New Normal.

Specifically, the research study sought to find answers to the following questions:

1. What are the reasons why only a few students of QCU borrowed the laptops?
2. What are the challenges of distance learning to the students of QCU?
3. What is the preferred learning modality of the students in QCU?

METHODOLOGY

The study utilized quantitative data obtained from a survey on distance learning for Quezon City University (QCU) students conducted by the Quezon City Education Affairs Unit in 2021. The survey, administered through Google Forms, was specifically designed to address the research questions at hand. The researchers employed the same platform to analyze the survey results.

Structured into six sections, the survey covered: 1. Cover letter and basic information of respondents; 2. Laptop unit provision for QCU students; 3. Reasons for not availing laptop units; 4. Laptop benefits and advantages; 5. Distance learning advantages and mode of preference. Respondents who availed of the "Laptop Usufruct Program" answered questions in the second part, while those who did not were directed to express their reasons for non-participation. For those who availed, the survey used a Likert scale to gauge the benefits and advantages of the laptop units. The subsequent section focused on the acquired benefits, again utilizing the Likert scale.

The survey delved into how students cope with distance learning and their preferred learning modalities, including options like face-to-face classes, pure online classes, a combination of online and face-to-face, distance learning using textbooks and modules, a combination of online classes and printed modules, a combination of online and modular, combination of face-to-face and modular, or combination of face-to-face and online distance learning.

The research objectives encompass evaluating the efficacy of the laptop and pocket Wi-Fi distribution at QCU in response to distance learning in the new normal. Additionally, the study seeks to understand the reasons behind students not availing of the laptop usufruct program, challenges encountered in distance learning, and the preferred learning modality among the student population.

The respondents consist of enrolled students from all colleges and year levels during the Academic Year 2020-2021 Second Semester. A total of 8,765 students from various programs such as BS Entrepreneurship, BS Information Technology, BS Industrial Engineering, BS Electronics Engineering, and BS Accountancy were invited to participate through random sampling. This approach aimed to ensure representation from the entire student population, allowing for a comprehensive understanding of the study's scope and facilitating informed planning and budgeting for the upcoming school year.

RESULTS AND DISCUSSION

Quezon City University (QCU) is one of the local universities in Metro Manila that implemented E-Learning Classroom in response to the directives of the Commission of Higher Education (CHED) amidst this pandemic. The Local Government of Quezon City specifically its Education Affairs Unit supported the QCU students and allocated a sufficient budget to procure laptops and pocket wifi to be utilized during their online classes. However, the result of the laptop distribution inventory report at least before the first semester ends was short of the total number of students expected to borrow laptops and pocket wifi. There were 4,358 borrowed laptops out of 8,000 purchased

laptops intended for students' use. In this, a Distance Learning Survey for QCU students was facilitated to gather the possible reasons for the low turnout of distributions and how the distributed laptops address the need of the students to adapt to the new normal.

Out of 8,765 enrolled students in the 2nd Semester AY 2020-2021, 5,893 students responded to the survey, equivalent to 67% of the population of QCU students.

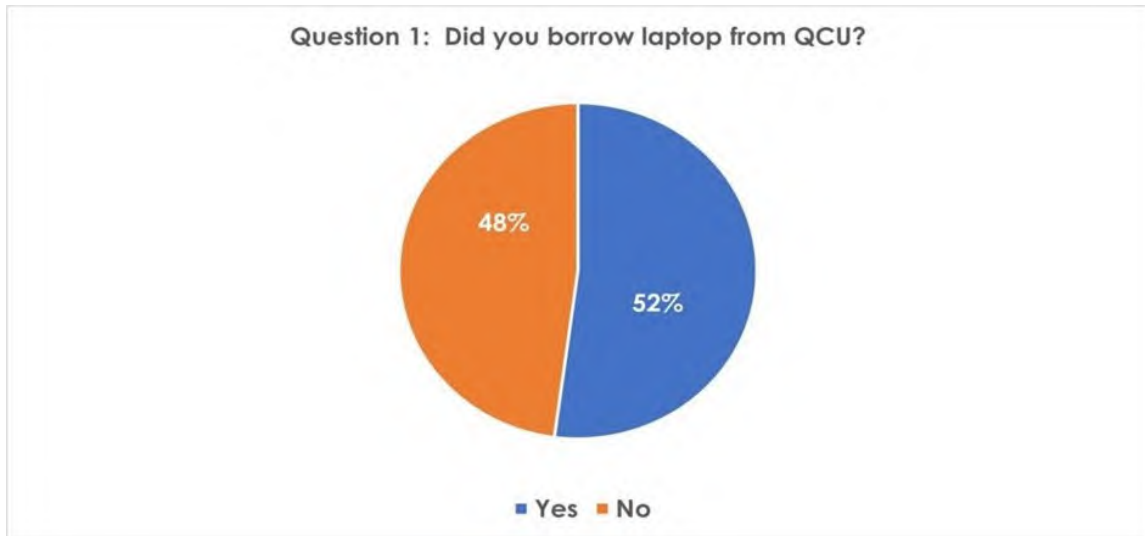


Figure 1. Percentage of students who borrowed and did not borrow laptops

Of the 5,876 respondents, when asked if they availed of the Laptop Usufruct Program, 3,062 have borrowed laptops for their e-learning while there were 2,814 who opted not to borrow.

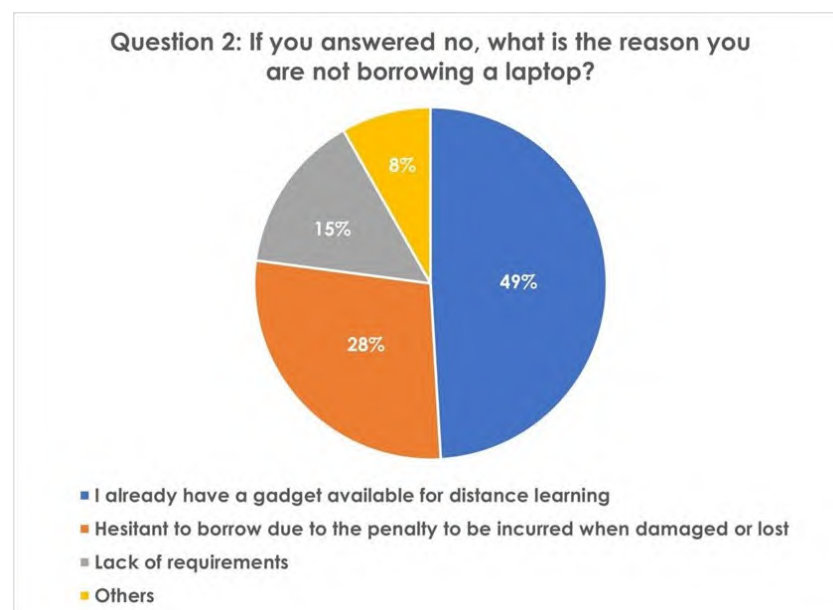


Figure 2. Percentage of the reasons why students did not borrow a laptop

Among the 2,814 respondents shown in Figure 2, 1,381 students possess readily available gadgets for online classes and have chosen not to borrow. Some have altruistically offered their slots to peers facing challenges in acquiring study devices. Conversely, 788 students harbor reservations about borrowing due to stipulations outlined in the agreement form. Concerns include potential financial responsibilities for damaged or lost laptops, impacting their eligibility for clearances necessary to receive school credentials for progression to the next academic year and participation in graduation ceremonies. Additionally, 413 students encountered difficulties in meeting the requirements outlined in the necessary documents. The remaining respondents cited financial constraints preventing them from covering printing and notary expenses for the required documentation. Some have relocated to other cities or provinces, driven by a perceived safety advantage amid the surge of virus transmission within the city.

Laptop usage according to the students

Table 1.
Students' Responses on the Usage of the Lend Laptops

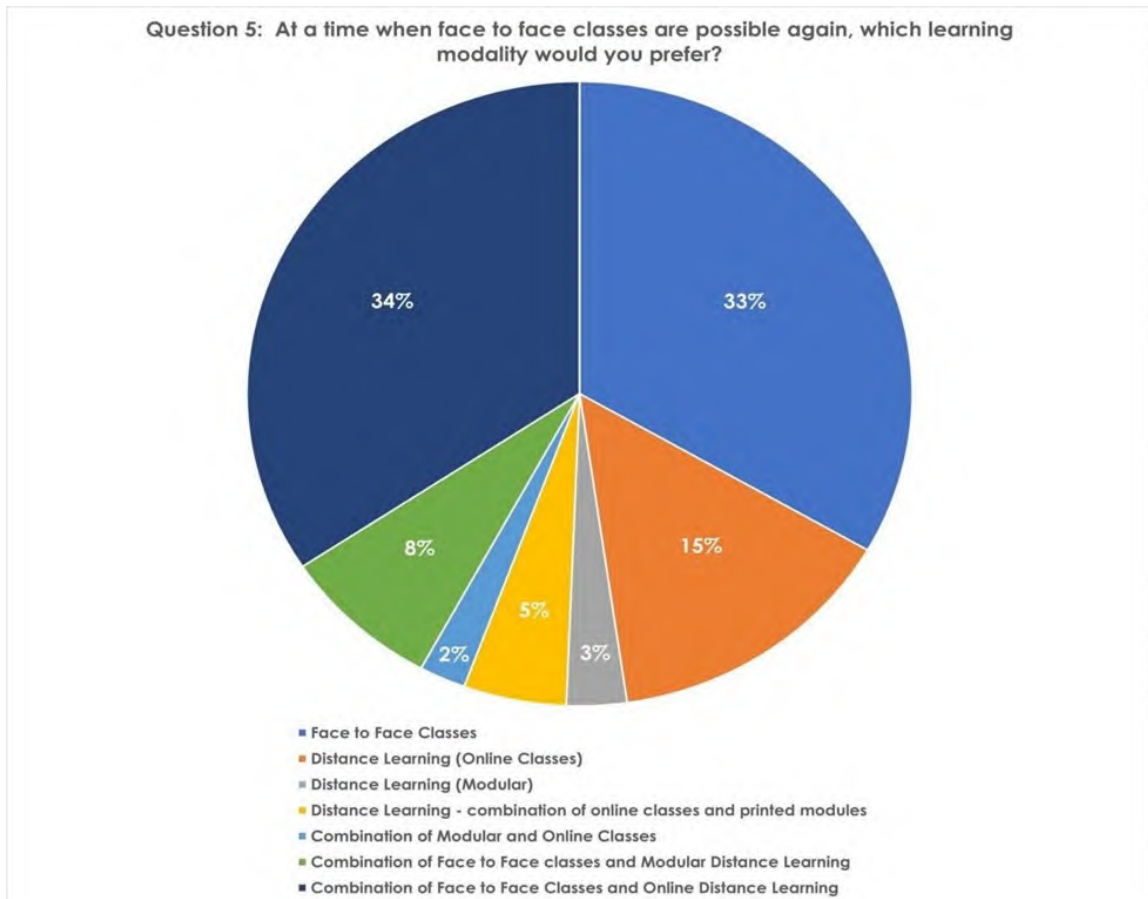
Students Response	Frequency
Online classes	3,221
School activities, homework, research, program design	3,142
Educational Videos	2,300
Digital Modules	2,250
Consultation with the teachers	1,826
Others: Browsing Facebook, YouTube, Personal Conferencing	117

Out of 3,850 responses, most of the students mentioned that the laptops borrowed were used generally for educational purposes. It is good to know that the main purpose of lending a laptop to the QCU students was served. The University and QC Local Government fully understand the great impact and the struggle of the students from the abrupt change from face-to-face to online learning and due to students' family financial resources to provide themselves with the necessary equipment for the online class. Thus, lending a laptop was the urgent solution to support the students for this immediate transition.

Challenges encountered during E-learning

Coping with an unstable internet connection emerged as the most frequently mentioned challenge in response to this question. Some respondents also indicated that they lack a conducive study area due to surrounding noise, especially when compared to a traditional classroom setting. Other challenges included balancing household duties with study commitments, the distraction of easy access to social media platforms like Facebook, YouTube, movies, and games, as well as the necessity of self-study for recorded lessons provided by teachers.

In full support of the E-learning endeavors of QCU students, the QC Government allocated a total of 5,225 pocket wifi units. This initiative aims to alleviate concerns about sustaining prepaid load costs and to enhance connectivity, ensuring continuous interactions with classmates and teachers. Despite challenges in the delivery process, such as typical procurement procedures and high demand from providers, the distribution of pocket wifi units is scheduled to be completed by the end of May 2021.



The preferred learning modality among 5,877 students was a combination of face-to-face with online distance learning (2,018), followed closely by face-to-face (1,960), and then distance learning - online class (844). Other modalities, constituting 18% of the responses, included a combination of face-to-face and modular (456), a combination of modular and online classes (294), modular distance learning (172), and a combination of modular and online distance learning (133).

Regarding the responses to Question 4, one of the challenges mentioned by students was the condition of the study area, with many believing that a regular classroom provides a more conducive environment for studying. Given that many QCU courses involve laboratory subjects best taught in an actual classroom setting, the abrupt transition from face-to-face to virtual classes posed difficulties. However, the survey indicates that QCU students are increasingly appreciating online classes, especially with the provision of laptops and free internet connections, which significantly aids their studies while ensuring their safety at home. Consequently, the University may consider integrating hands-on activities, lectures, and E-learning to ensure that students

are equipped with the necessary knowledge and skills to become employable graduates.

CONCLUSION

This research aimed to determine the effectiveness of the laptop and pocket Wi-Fi distribution as the response of the Quezon City (QC) Government through the QC Education Affairs Unit (EAU) and Quezon City University (QCU) to distance learning amid the pandemic.

Based on the findings of this study it can be concluded that, given the time constraints, lack of proper planning and forecasting, and despite the low turnout of distribution, the said project/ program of the institution can address the educational needs of the majority of the students of QCU and ease, if not, efface their concerns and apprehensions with adapting to distance learning.

The results indicate that the majority of the students were positively affected by the provision of laptops for they were able to use them for online classes, answering modules, research, watching educational videos, consultation with professors, and the like. On the other hand, students who opted not to borrow laptops indicated reasons of already having personal laptops, reluctance to borrow due to accountability, difficulty in complying with the requirements, and other personal reasons such as lack of financial resources to process the necessary documents, and relocation to other cities and/or provinces.

Based on the study, the students also expressed their eagerness to return to face-to-face learning as one of the major challenges of the students with distance learning is the unstable and poor internet connection while others expressed that their environment and other external factors such as noise and balancing of both household duties and studies also affect their learning. The local government addressed this through the provision of pocket Wi-Fi.

The following recommendations may assist and support the further development of the response of the local government to the sudden shift in learning modalities:

- Proper research, planning, and assessment of the readiness and needs of the institution, faculty, and students to cope with this time of pandemic.
- Gradual transition to Blended Learning of face-to-face and distance/modular learning to ensure the delivery of quality education.
- Provision of added manpower and equipment such as additional laptops and upgrade to appropriate pocket wifi/ data package/plans. This may also include the installation of other virtual learning equipment in classrooms in preparation for blended/ face-to-face learning.
- Offer ongoing/ regular orientation and training to students and faculty to help overcome obstacles to distance learning.

While further exploration should be done, this study provides basis and background information that may serve and benefit future research and analysis of the effects of distance learning amidst the pandemic. Moreover, this may support, evaluate, and establish the effectiveness of the response and proactive efforts of the local government to the sudden shift to online instruction; to guide them in enhancing and

developing their programs, practices, systems, and undertakings to serve and provide better solutions to the ever-changing needs in the academe and education sector.

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