
THE PERSPECTIVES AND PREFERENCES OF BSIT STUDENTS AT QUEZON CITY UNIVERSITY IN ONLINE LEARNING

Paula Joy L. Dela Cruz, Christian B. Escoto, Dr. Isagani M. Tano
Quezon City University, San Bartolome Novaliches, Quezon City, Philippines

Abstract

Some academic institutions implemented online learning during the novel pandemic to prevent the health risks brought by the COVID-19 virus. In the Philippines, Quezon City University, one of the local universities, has also set up an online learning environment for college students. Thus, a research study was developed to determine the perspectives and preferences of students, particularly those who are taking a Bachelor of Science in Information Technology, since technology is already part of their chosen degree program. It is to highlight their insights based on their experience during the implementation of online learning; additionally, preparation will be done for emergency online class implementation. The data were gathered and analyzed based on the responses of the five hundred fifty (550) participants who answered the online questionnaire and survey. The results of the study show the various preferences and perspectives of students in conducting online learning that may serve as references for the management of academic institutions in providing effective learning materials, approaches, and methodologies for better learning delivery to students during online classes.

Keywords: Pandemic, COVID-19, Online learning, BSIT students, Preferences, Perspectives

Introduction

The pandemic due of covid-19 virus has huge impact in academic community. Many colleges, instructors, and students at all levels have been affected by the inability to move quickly to electronic and online learning environments. The number of colleges and universities offering distance education programs has increased significantly around the world, and distance education has exploded in many countries. According to Mykhaylova (2021), the crisis has affected more than 1.37 billion students. Students have been forced to move from physical college campuses and adapt to modern online educational environments as a result of the advantages and disadvantages. They've experienced anxiety, isolation, and confusion about what will happen with their classes, tests, graduation, and other significant events affecting their academic course, such as platform usability problems, despite possible COVID-19 virus health risks. However, the hassle of commuting to school has been eliminated, and having the freedom to learn anytime and having enough rest and sleep has been possible, as well as keeping safe at home from the COVID-19 virus.

Traditionally, educators used distance learning to incorporate various learning methods into their lesson plans. The novel pandemic has made online learning mandatory, pushing schools and universities to quickly implement unprecedented strategies in their attempts to make distance education accessible, including creating an immediate learning environment in a setting that is distinct from conventional classrooms. Therefore, the researchers would like to determine the perspectives of BSIT students on online learning based on their experience during its implementation and also identify their preferences. It is to help Quezon City University take action for better management of facilitating online classes. Since computers and technology are already a part of the BSIT students' selected program at Quezon City University, the researchers also determined the impact of online learning on them using technology, as well as its advantages and disadvantages.

According to Gegenfurtner et al. (2020), many researches aiming at assessing distance learning all through the duration of COVID-19 in different countries had been lately conducted. Most of them have proven that the college closures have furnished clarity different problems concerning issues to the learning process of students, and into extra socioeconomic issues that have an effect on many people throughout communities; however, their effect is excessive especially on low-earning families. One of these situations, changing from traditional to online learning options.

Wherein the technology such as computer and mobile phone is needed as well as the internet connection. Almost all of the research had been undertaken all through the primary weeks of the outbreak, it seems that having a conclusion on the quality of online learning needs future studies, as the primary aim becomes to retain the learning process in any viable way. Since, online learning might be very beneficial in the future.

In research from Stifel et al. (2020) of the University of California, the measurement of the COVID 19 crisis and subsequent social distance poses many challenges for school psychologists to balance public health with the right of students to a free and decent education. It describes one of the most controversial issues for school psychologists during a pandemic, how to perform an ethical psycho-educational assessment without put at risk of someone's health. The legal information and regulations regarding special education assessments during a pandemic, and then discusses the feasibility of remote assessments from an ethical, legal, and implementation perspective should be represented. Additionally, special education aimed at helping school psychologists perform the necessary assessments in the light of an ongoing pandemic, based on epidemiological knowledge of COVID 19 transmission and practices implemented in other countries.

According to research of Al-Salman and Haider (2021), the COVID19 crisis has a major impact on the quality of life and future of young people. It can also lead to educational confusion. Post-crisis disturbance will pose a serious threat to society as a whole. Therefore, institutions need to respond quickly and ensure the continuity of the education process. The purpose of the research was to develop and implement a model that would allow a rapid transition from a traditional model to a distance learning model in an emergency state.

The focus must be on designing the technical, organizational, and pedagogical changes that educational institutions need to implement to enable different ways of interaction, ensure continuity, and provide quality education. Furthermore, the main challenge of an online learning environment, according to Zhou and Zhang (2021), was the absence of interactions with instructors and peers; on-campus students felt more peer support than off-campus students. These results may offer a framework for further study of it and the advancement of the online learning environment.

Marek et al. (2021), many teachers are experience in the transition from classroom to distance learning in a Covid-19 pandemic. Some researchers conducted a global survey to examine the experience of college educators who transitioned to distance learning during the COVID 19 pandemic. The majority of respondents reported significantly more workload and stress than face-to-face classes. Previous experience with online distance learning (ODL) predicted positive reactions from teachers. Less than half used school-provided LMS instead of using a variety of other technologies. Respondents learned the need for adaptability and proper planning and emphasized doing what they needed to serve their students. Most answers vary widely, suggesting that each teacher's experience varies significantly between positive and negative. Researchers make recommendations based on findings, including the need for better ODL instructional design training as part of faculty long-term professional development and the importance of higher education experience for all students. Many of them are beyond the scope of actual classroom instruction. Additionally, the focus of education has changed during COVID-19 to reflect the techno-economic culture. The change should be coordinated with strategies to lessen its effects on the typical learning process (Gurukkal, 2020). The understanding of higher education, including its institutions and students' needs, must evolve as a result of the shift to online learning. Theoretical classes, for instance, can be taught online. It is to ensure optimum teaching techniques in monitoring and directing students. Technology may also be something to consider that can help provide flexible, student-centered instruction in larger courses during online learning (Siripongdee et al., 2020).

Materials and Methods

The research instrument used in this study is the questionnaire used by (Darius et al., 2021) in his research and includes survey items in the study of (Andrew et al., 2018). The questionnaire was used to identify the effectiveness of several online tools and technologies, the preferences of students' learning methods, and the positive and negative impacts of technology during the online learning process.

The researchers used a Google Form to create a questionnaire and survey that have been answered by five hundred fifty (550) students under the Bachelor of Science in Information Technology (BSIT) program at Quezon City University. The students were also formerly enrolled in the academic years 2020–2021 and 2021–2022. Since the

threat of COVID-19 still exists during the study, convenience sampling was utilized, wherein the Google form link has been posted in the Facebook group of BSIT students and information technology instructors at QCU.

The researchers ensured that the participants were willing to share their experience and opinion regarding the use of online learning by answering the posted questionnaire and survey form. The literature study had also taken place to determine the advantages and disadvantages of online learning during its pandemic.

Results and Discussions

The results of the study were gathered and analyzed based on the 550 participants, which are the BSIT students of Quezon City University. The study aims to determine the perspectives and preferences of students to provide effective learning materials, approaches, and methodologies for better learning delivery to students during online classes. Figures 1-4 show the results to determine the preferred learning style of students during an online learning; Figures 5-8 show the results to understand the perspective of students in effectiveness of learning materials during an online class; and Figures 9-12 show the results to determine the different situations/challenges encountered by students during an online learning. Figure 13 shows the results of the overall positive impact of technology on students; the higher the score, the greater the positive impact on students. However, in Figure 14, which shows the results of the overall negative impact of technology on students, the higher the score, the more negative the impact. Figure 13 and Figure 14 were rated using a 5-point Likert scale and computed using the mean; the results were sorted from highest to lowest for better visualization of the results.

Table 1 shows the demographic profile of participants. The majority of participants were male (52.2%), 42.5% were female, 0.9% were non-binary, and 0.4% preferred not to say. In college year standing, 52.7% of participants were in their 4th year of college, 22.9% were in their 2nd year, 13.5% were in their 3rd year, and 10.9% were in their 1st year. Some of the participants (61.6%) spend 1-5 hours online for educational purposes, 25.1% spend 6-10 hours, 7.6% spend greater than 10 hours, and 5.6% spend less than 1 hour. In spending hours online for exploring the internet, such as games, social media, and others, 51.8% spend 1-5 hours, 23.6% spend 6-10 hours, 12.9% spend less than 1 hour, and 11.6% spend greater than 10 hours.

Table 1. Demographic Profile

Characteristic	Description	Percentage
<i>Gender</i>	Male	56.2%
	Female	42.5%
	Non-Binary	0.9%
	Prefer not to Say	0.4%
<i>Current Year in College (As of February 2022)</i>	1st Year College	10.9%
	2nd Year College	22.9%
	3rd Year College	13.5%
	4th Year College	52.7%
<i>Number of Hours Spend per day for educational purposes</i>	< 1 hour	5.6%
	1 -5 hour	61.6%
	6 - 10 hour	25.1%
<i>Number of Hours Spend per day Online (For example, exploring the Internet, games, social media)</i>	> 10 hour	7.6%
	< 1 hour	12.9%
	1 -5 hour	51.8%
	6 - 10 hour	23.6%
	> 10 hour	11.6%

40.9% of students engage in learning digitally through giving an assignment individually, and 30.4% engage through small group work with five members. 17.6% of them are likely to have a large group (10 or more) to learn digitally, while 11.1% engage to learn digitally through project-based learning.

Which of the methods engage you personally to learn digitally?

550 responses

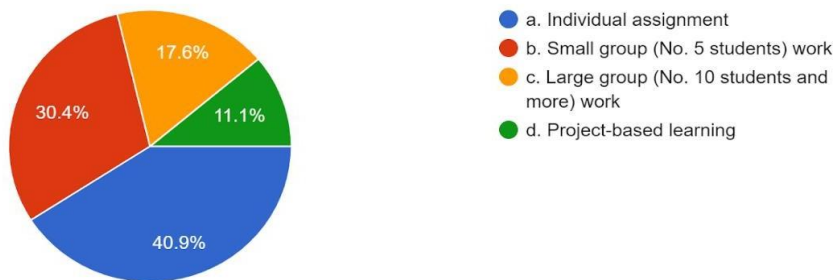


Figure 1. Method Engage Student Personally to Learn Digitally

In terms of digital collaborations, 56.4% of students ease their specific task through a small work group with five members, 23.1% believe in a two-by-two or two-member team, and 20.5% believe in large group work with 10 or more students.

Which of the digital collaborations enables you to work on a specific task at ease?

550 responses

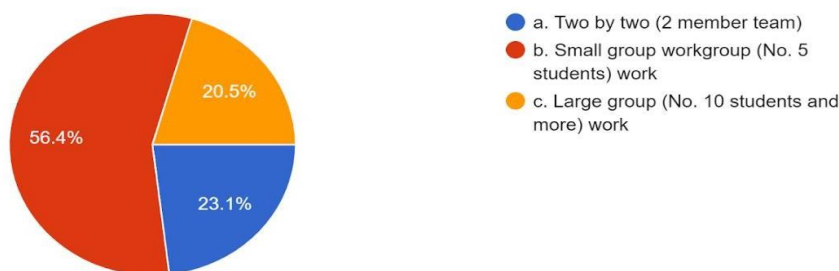


Figure 2. Digital Collaborations Enables Student to Work on a Specific Task at Ease

55.1% of students answered that PowerPoint presentations is more effective as digital approaches to motivating themselves in learning, and 28.7% answered through animations. And 12.4% answered that digital approaches motivate them to learn through whiteboard and pen, while 3.8% are in favor of digital pen and slate.

Which of the digital approaches motivate you to learn?

550 responses

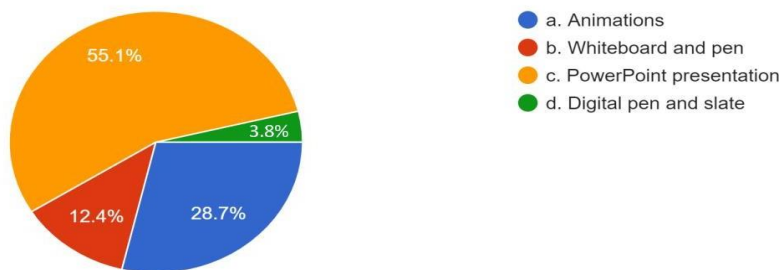


Figure 3. Digital Approaches Motivate Student to Learn

Based on the experience of the students, 47.5% of them can learn at their own pace in online learning from home digitally, and 25.5% are distracted with various activities at home, viz., TV, chatting, etc. The 16.4% of students can learn better with uninterrupted network connectivity, and 10.7% experience that their situational challenges are not suitable.

My experience with online learning from home digitally

550 responses

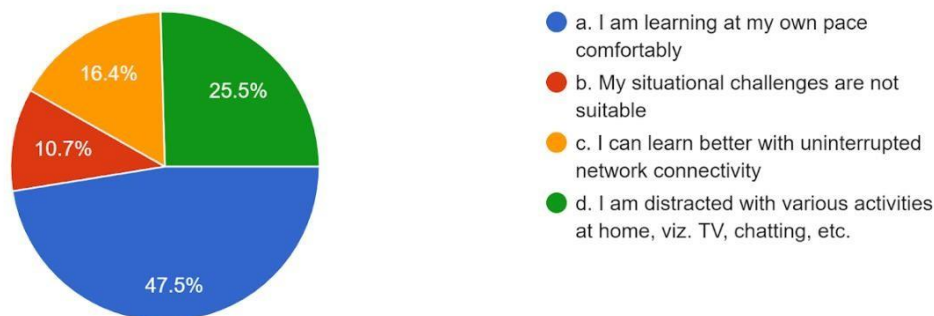


Figure 4. Student’s Experience with Online Learning from Home Digitally

61.8% of respondents answered that the recorded video lecture delivered by their own faculty or instructor is more effective in the learning of students, and 14.5% said it was delivered by unknown experts, 13.6% by NPTEL, the Indian learning platform, and 10% answered that it is delivered by reputed overseas universities.

Which type of recorded video lecture is more effective for learning?

550 responses

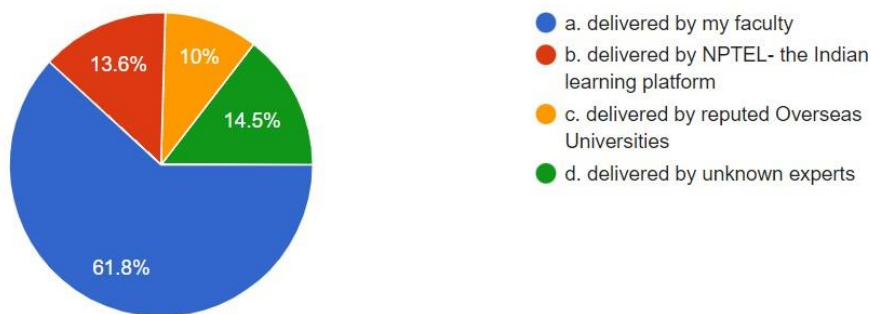


Figure 5. Type of Recorded Video Lecture as More Effective for Learning

61.3% of respondents answered that an online quiz with multiple choice questions is a type of quiz or examination that is more effective for testing their understanding; 27.8% answered the traditional pen and paper quiz with multiple choice. However, 5.6% of respondents answered the online quiz with short answers, and 5.3% answered the traditional pen and paper quiz with short answers, which was more effective for them in testing their understanding.

Which type of quiz is more effective for testing the understanding?

550 responses

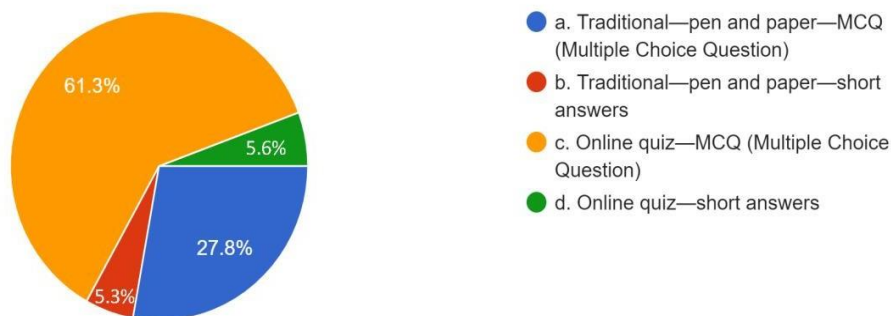


Figure 6. Type of Quiz as More Effective For Testing the Understanding of Student

68.7% of respondents believed that student-version software downloaded from the internet was truly useful for their learning, with 28.4% of them unable to decide. However, 2.9% of respondents believed that student-version software downloaded from the internet was not useful for their learning.

Student version software downloaded from the internet is useful for learning

550 responses

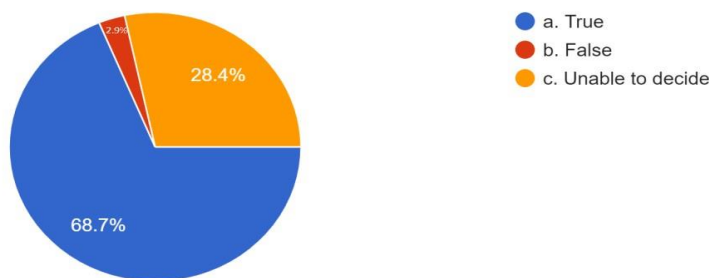


Figure 7. Student version software downloaded from the internet as useful for learning

48% of respondents believe online teaching is effective for students because PowerPoint is available in front of them, and 32% believe it is effective because they do not need to walk long distances before reaching the class. And 13.8% believe the online class is effective because they can hear the lecture clearly, while 6.2% believe they can ask questions without much reservation.

Online teaching–learning takes place effectively because:

550 responses

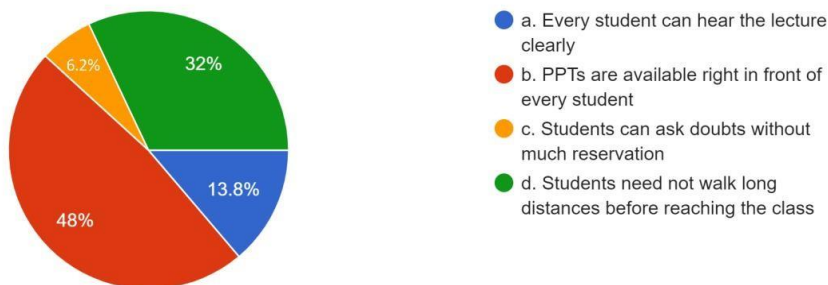


Figure 8. Student’s Perception in Effectively Of Online Teaching–Learning

In online learning off-campus, 43.6% of respondents answered that their friend, family member, roommate, or neighbor disturbs them occasionally. 42.5% of respondents answered that no one disturbs them during online learning, and 13.8% of them are constantly disturbed by their friend, family member, roommate, or neighbor.

Which of the following statements is true of online learning off-campus?
550 responses

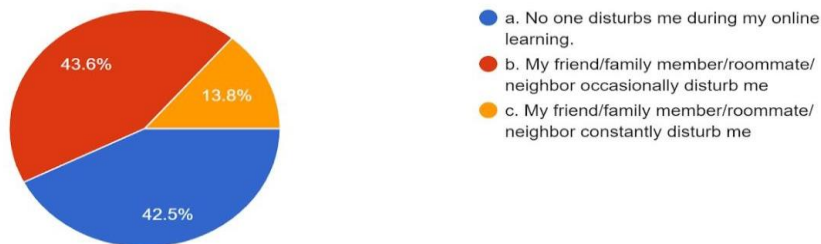


Figure 9. Student’s Statements about Online Learning Off-Campus

86.7% of respondents have a moderate amount of responsibilities but have sufficient time for online learning; 6.7% don’t have many responsibilities; and 6.5% have many responsibilities and don’t have any time left for online learning.

At home/place of residence, how many responsibilities do you have?
550 responses

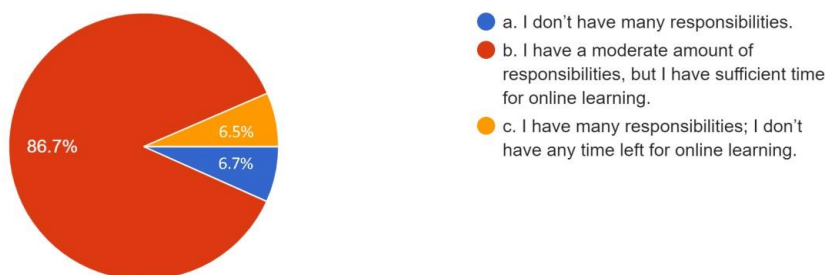


Figure 10. Student’s Responsibilities at Home/Place of Residence

46.7% of respondents preferred method for clearing doubts in online learning is by asking the professor during or after an online lecture, while 37.1% preferred to go through online material, providing an additional explanation, and 16.2% preferred to post a query in a discussion forum of their class and get help from their peers.

What is your most preferred method for clearing doubts in online learning?
550 responses

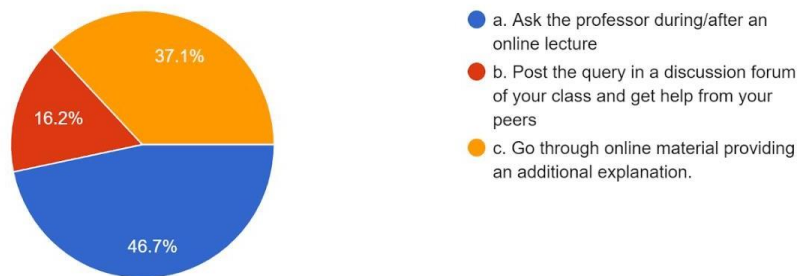


Figure 11. Student’s Preferences Method for Clearing Doubts in Online Learning

67.1% of the respondents use a laptop or desktop computer for online learning, 31.8% use a smartphone, and 0.5% use a tablet as well as other devices.

Which of the following devices do you use for your online learning?

550 responses

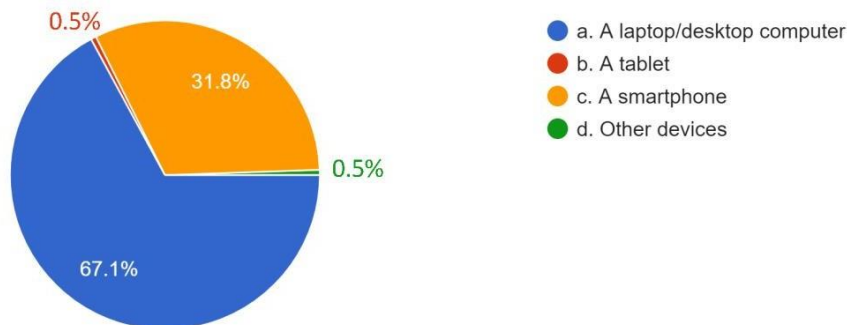


Figure 12. Student’s device Use for Online Learning

Figure 13 shows the positive impact of technology on students. The results of the computed mean were sorted from highest to lowest to better understand the positive impact of using technology in online learning. The highest score was 4.45, which states that using technology makes students learn new information, things, technology, and other ways of learning. The second-highest score was 4.41, indicating that using technology helps students with a lot or more information. The third highest score was 4.35, indicating that using technology makes students fast and quick as well as saves time.

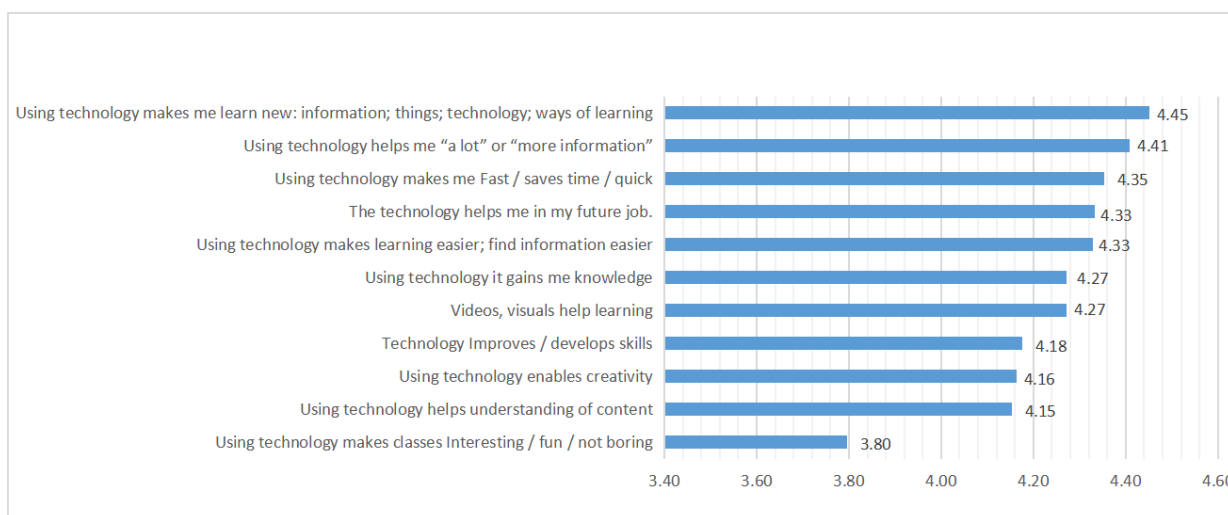


Figure 13. Results of Overall Positive Impact of Technology to Students

Figure 14 shows the negative impact of technology experienced by students in online learning. The highest score of 3.91 stated that using technology, students got hurt their eyes. The second-highest score with 3.36 is that using technology distracts and hurts their concentration, and 3.27% answered that technology causes them problems.

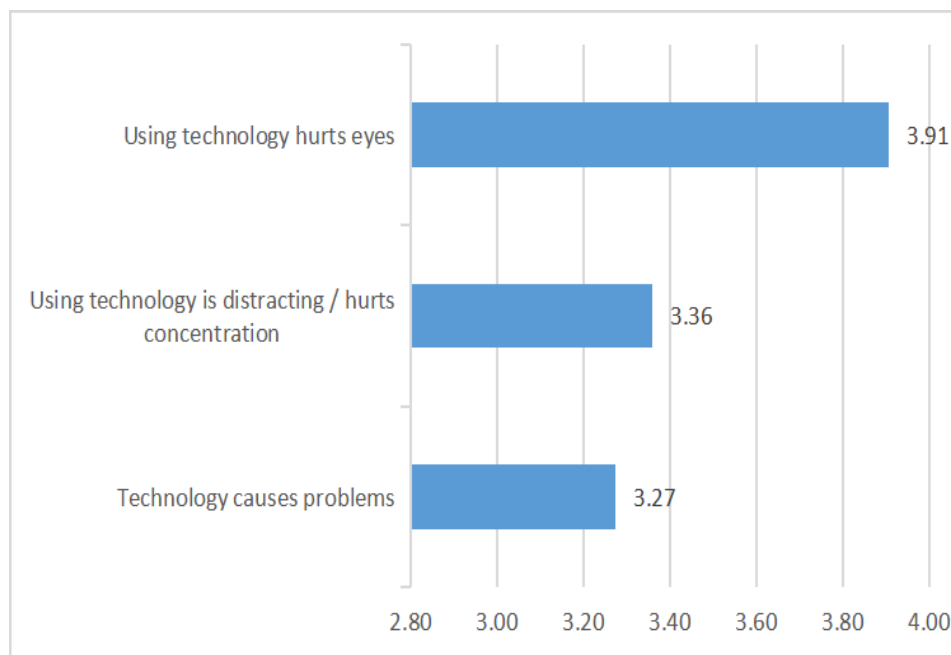


Figure 14. Results of Overall Negative Impact of Technology to Students

Conclusion

The results of the study show that many students preferred to learn digitally through individual assignments. In digital collaborations, they ease their specific task through a small work group with five members. The PowerPoint presentation and recorded video lecture delivered by their own instructor are more effective as digital approaches for encouraging themselves to learn. Also, they can learn at their own pace through online learning from home. In terms of type of quiz or examination, the online quiz with multiple choice questions is more effective for testing their understanding. However, in online learning off-campus, the friend, family member, roommate, or neighbor disturbs the student occasionally and has a moderate amount of responsibilities, but they have sufficient time for online learning. Most of the students use laptops or desktop computers for online learning, and student-version software downloaded from the internet is truly useful for their learning. The online teaching takes place effectively because PowerPoint is available in front of them. And the preferred method for clearing doubts is by asking the professor during or after their online lecture. In terms of the positive impact of technology on students, based on the results among some positive impacts, technology makes students learn new information, things, and other ways of learning. It has the highest mean. In the negative impact of technology on students, the highest mean was that when using technology, students got their eyes hurt. So that it is suggested to implement conducting synchronous classes for no more than 5 hours per day to help prevent the negative impact of technology on the health of the students. The results of the study may serve as references for the management of academic institutions during the setting of online classes to provide effective learning materials, approaches, and methodologies for better learning delivery.

Acknowledgement

The researchers would like to express their gratitude and appreciation to all of those with whom they have had the pleasure to work to accomplish this study, particularly:

To the Quezon City University for encouragement to conduct and finish this study; To the APCORE community for opportunities.

To the Faculty of the College of Computer Studies for cooperation and support;

To the respondents of the study who participated and honestly answered the question; To their family for unconditional love and support;

To the researchers' friends whose names were not mentioned but who greatly helped in one way or another; and

Above all, to God the Father, through the intercession of His Son, Jesus Christ, who is the great provider of strength and wisdom.

References

Adnan, M. (2020). Online learning amid the COVID-19 pandemic: Students perspectives. *Journal of Pedagogical Sociology and Psychology*, 1(2), 45–51. <https://doi.org/10.33902/jpsp.2020261309>

Al-Salman, S., & Haider, A. S. (2021). Jordanian University Students' Views on Emergency Online Learning During COVID-19. *Online Learning*, 25(1). <https://doi.org/10.24059/olj.v25i1.2470>

Andrew, M., Taylorson, J., J Langille, D., Grange, A., & Williams, N. (2018). Student Attitudes towards Technology and Their Preferences for Learning Tools/Devices at Two Universities in the UAE. *Journal of Information Technology Education: Research*, 17, 309–344. <https://doi.org/10.28945/4111>

Bahasoan, A. N., Ayuandiani, W., Mukhram, M. A., & Rahmat, A. (2020). Effectiveness of Online Learning In Pandemic Covid-19. *International Journal of Science, Technology & Management*, 1(2), 100–106. <https://doi.org/10.46729/ijstm.v1i2.30>

Cortez, C. P. (2020). Blended, Distance, Electronic and Virtual-Learning for the New Normal of Mathematics Education: A Senior High School Student's Perception. *European Journal of Interactive Multimedia and Education*, 1(1), e02001. <https://doi.org/10.30935/ejimed/8276>

Darius, P. S. H., Gundabattini, E., & Solomon, D. G. (2021). A Survey on the Effectiveness of Online Teaching–Learning Methods for University and College Students. *Journal of The Institution of Engineers (India): Series B*, 102(6), 1325–1334. <https://doi.org/10.1007/s40031-021-00581-x>

Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, 49(1), 5–22. <https://doi.org/10.1177/0047239520934018>

Duran, L. (2020). Distance Learners' Experiences of Silence Online: A Phenomenological Inquiry. *The International Review of Research in Open and Distributed Learning*, 21(1), 82–98. <https://doi.org/10.19173/irrodl.v20i5.4538>

García-Morales, V. J., Garrido-Moreno, A., & Martín-Rojas, R. (2021a). The Transformation of Higher Education After the COVID Disruption: Emerging Challenges in an Online Learning Scenario. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.616059>

Gegenfurtner, A., Schmidt-Hertha, B., & Lewis, P. (2020). Digital technologies in training and adult education. *International Journal of Training and Development*, 24(1), 1–4. <https://doi.org/10.1111/ijtd.12172>

Gurukkal, R. (2020). Will COVID 19 turn higher education into another mode? *High. Educ. Future* 7, 89–96. doi: 10.1177/2347631120931606

Isaeva, R., Eisenschmidt, E., Vanari, K., and Kumpas-Lenk, K. (2020). Students' views on dialogue: improving student engagement in the quality assurance process. *Qual. High. Educ.* 26, 80–97. doi: 10.1080/13538322.2020.1729307

Li, L.-Y., and Lee, L.-Y. (2016). Computer literacy and online learning attitude toward GSOE students in distance education programs. *High. Educ. Stud.* 6:147. doi: 10.5539/hes.v6n3p147

Marek, M. W., Chew, C. S., & Wu, W. C. V. (2021). Teacher Experiences in Converting Classes to Distance Learning in the COVID-19 Pandemic. *International Journal of Distance Education Technologies*, 19(1), 89–109. <https://doi.org/10.4018/ijdet.20210101.oa3>

Mayer, R. E. (2019). Thirty years of research on online learning. *Applied Cognitive Psychology*, 33(2), 152–159. <https://doi.org/10.1002/acp.3482>

Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, Limitations and Recommendations for online learning during COVID-19 pandemic era. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4). <https://doi.org/10.12669/pjms.36.covid19-s4.2785>

Mykhaylova, Y. (2021). The impact of economic crisis on the education sphere. *Economic Scope*. <https://doi.org/10.32782/2224-6282/171-6>.

Nambiar, D. (2020). The impact of online learning during COVID-19: students' and teachers' perspective. *International Journal of Indian Psychology*, 8(2). <https://doi.org/10.25215/0802.094>

Simamora, R. F. (2020). The Challenges of Online Learning during the COVID-19 Pandemic: An Essay Analysis of Performing Arts Education Students. *Studies in Learning and Teaching*, 1(2), 86–103. <https://doi.org/10.46627/silet.v1i2.38>

Singh, V., & Thurman, A. (2019). How Many Ways Can We Define Online Learning? A Systematic Literature Review of Definitions of Online Learning (1988-2018). *American Journal of Distance Education*, 33(4), 289–306. <https://doi.org/10.1080/08923647.2019.1663082>

Siripongdee, K., Pimdee, P., and Tuntiwongwanich, S. (2020). A blended learning model with IoT-based technology: Effectively used when the COVID-19 pandemic? *J. Educ. Gift. Young Sci.* 8, 905–917. doi: 10.17478/JEGYS.698869

Stifel, S. W. F., Feinberg, D. K., Zhang, Y., Chan, M. K., & Wagle, R. (2020). Assessment During the COVID-19 Pandemic: Ethical, Legal, and Safety Considerations Moving Forward. *School Psychology Review*, 49(4), 438–452. <https://doi.org/10.1080/2372966x.2020.1844549>

Strielkowski, W. (2020). COVID-19 pandemic and the digital revolution in academia and higher education. Preprints 2020:2020040290. doi: 10.20944/preprints202004.0290.v1

United Nations. (2020). Policy Brief Education during COVID-19 and beyond. Retrieved from https://www.un.org/development/desa/dspd/wpcontent/uploads/sites/22/2020/08/sg_policy_brief_covid19_and_education_august_2020.pdf

Zhou, J., & Zhang, Q. (2021). A Survey Study on U.S. College Students' Learning Experience in COVID-19. *Education Sciences*, 11(5), 248. <https://doi.org/10.3390/educsci11050248>