East Asian Journal of Multidisciplinary Research (EAJMR)
Vol. 2, No. 3 2023: 1313-1326

Exploring Factors Affecting the Adoption of Flexible Learning Modality by Public University Students in Masbate, Philippines

Erdee C. Cajurao[1*], Michael O. Ogaya[2], Cesar D. Almonicar, Jr[3], Grace B. Abella[4], Joper C. Escalante[5]

Dr. Emilio B. Espinosa, Sr. Memorial State College of Agriculture and Technology; Masbate, Philippines

Corresponding Author: Erdee C. Cajurao eccajurao@debesmscat.edu.ph

A R T I C L E I N F O

Keywords: Flexible Learning, University Students, Online Learning, Higher Education, COVID-19 Pandemic

Received : 05, January
Revised : 10, February
Accepted: 15, March

A B S T R A C T

This study explored factors influencing the adoption of flexible learning by university students at Dr. Emilio B. Espinosa Sr. Memorial State College of Agriculture and Technology (DEBESMSCAT), a public university in Masbate, Philippines. A descriptive research survey approach was used with 1,137 respondents. Students relied on parents or guardians (45.3%) for support and used smartphones (57.4%) and basic cellphones/keypads (24.4%) for flexible learning. Most had internet access (75.5%) but relied on mobile data (72.8%), the slowest type of connection. Online (23.5%) and modular (22.9%) instruction was preferred over on-campus classes. Key barriers were lack of budget for load allowance (32.9%), unstable internet connection (31.4%), and unavailability of gadgets (15.2%). The study recommends addressing financial barriers for better academic outcomes.

DOI prefix: https://doi.org/10.55927/eajmr.v2i3.3473
ISSN-E: 2828-1519
https://journal.yp3a.org/index.php/eajmr

INTRODUCTION

The COVID-19 pandemic has brought significant disruptions to various sectors, including education. According to UNESCO (2020), approximately 24 million learners across the globe are at risk of not returning to school due to the pandemic, with South and West Asia and sub-Saharan Africa having the highest number of affected learners. University students, in particular, are highly impacted due to the high cost of higher education. In response to the pandemic's challenges, higher education institutions have adopted innovative solutions, including shifting from traditional learning to fully online instruction and adopting flexible learning approaches (Rizvi & Eckel, 2020; Tam & El-Azar, 2020).

In the Philippines, the government's closure of all universities and colleges has prompted the adoption of flexible learning as the new mode of instruction delivery in higher education institutions (Commission on Higher Education, 2020). Flexible learning provides learners with increased choice, convenience, and personalization of learning that best suits them, as well as greater flexibility in terms of when, where, and how learning occurs (Huang et al., 2020; Shurville et al., 2008). This approach can involve a combination of face-to-face and online learning, facilitated by various digital and non-digital technologies (Chaeruman, Wibawa, & Syahrial, 2018; Joan, 2013).

Previous studies have shown that flexible learning, including online learning, can be as effective as traditional learning outcomes (Feldhammer-Kahr et al., 2021; Müller & Milderbenger, 2021). However, implementing online learning presents numerous challenges for higher education institutions, such as the lack of technological devices, limited internet access, inadequate learning management systems, and insufficient institutional policies and guidelines (Bao, 2020; Delgado & Arellano, 2021; Gayon & Tan, 2021; Gocotano et al., 2021; Muftahu, 2020; Tuga et al., 2021).

One of the universities significantly impacted by the paradigm shift in education brought by the COVID-19 pandemic is Dr. Emilio B. Espinosa Sr. Memorial State College of Agriculture and Technology (DEBESMSCAT). DEBESMSCAT is a lone public university spanning 3,668 hectares of land in Mandaon, a third-class municipality in Masbate, Philippines. This area is considered among the less fortunate municipalities in terms of having reliable and fast internet connections, as reported by Bueno and Pacis (2020) and Magsambol (2020). Additionally, this area experiences frequent power interruptions that can last for several hours (IFC, 2007).

Given the above-mentioned challenges, this study aims to explore the factors that would determing the level of adoption of flexible learning modality by university students at Dr. Emilio B. Espinosa Sr. Memorial State College of Agriculture and Technology (DEBESMSCAT) in ensuring the continuity of the delivery of instruction amidst the pandemic. By investigating these factors and identifying appropriate actions, the study seeks to contribute to providing quality education during these challenging times.

Research Questions

The present study explored the factors that affect the level of adoption by public university students of DEBESMSCAT for flexible learning modality as the new mode of learning among higher education institutions. Specifically, it sought answers to the following questions:

1. What are the students primary supports for a flexible learning set-up?
2. Which technological devices are available to DEBESMSCAT students for flexible learning?
3. How many DEBESMSCAT students have reliable access to the internet for online learning?
4. What are the primary means of internet access among DEBESMSCAT students?
5. What is the preferred learning modality among DEBESMSCAT students?
6. What are the perceived barriers to effective learning under the flexible learning modality by DEBESMSCAT students?

METHODOLOGY

Research Design

This study adopted a descriptive-research survey approach to assess factors affecting the adoption level of flexible learning modality by public university students in Masbate, Philippines. This study design attempts to observe and evaluate the socio-demographic and other characteristics of the research participants without intervening or manipulating any prevailing conditions that influence them (Camara et al., 2020).

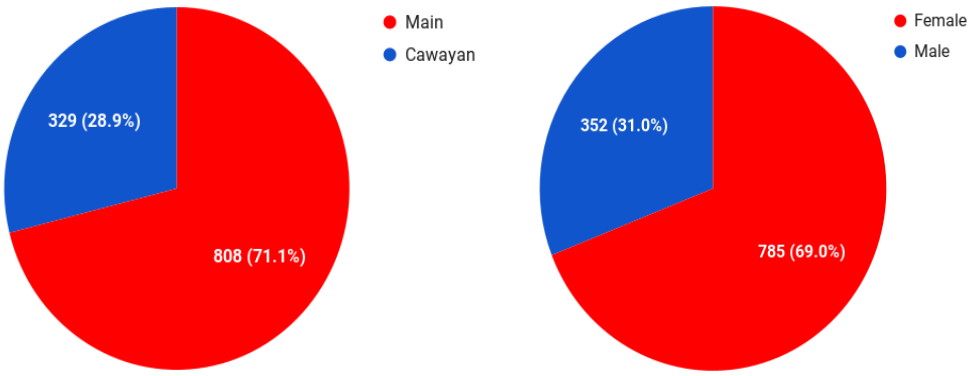
Sampling Method

A combination of snowball and convenient sampling was employed to recruit participants for the study. Snowball sampling was utilized for online respondents, while convenient sampling was utilized for on-site respondents with walk-in transactions and those who did not have reliable internet access. In snowball sampling, an initial group of students was recruited and forwarded the link to the survey questionnaire. They were asked to answer and share the survey questionnaire link with their classmates and friends enrolled in DEBESMSCAT, and the recruitment continued until the desired sample size was reached.

Respondents

A total of 1,137 university students from DEBESMSCAT participated in the study. 808 (71.1%) students were from the Main Campus in Mandaon, Masbate, and 329 (28.9%) were from the Cawayan Campus in Cawayan, Masbate. Among the participants, 785 (69%) were female, and 352 (31%) were male. The median age of the participants was 21 years old, with an age range of 18 to 35 years old.

The study was conducted for a five-month duration during the first semester of the School Year 2020-2021, amidst the implementation of the flexible Learning modality in all higher education institutions in the country (Commission on Higher Education, 2020).



a) b)

Figure 1. a) Distribution of participants per campus; b) distribution by sex.

Research Instrument

The researchers developed a self-reported survey questionnaire using Google Forms for online respondents, and a hard copy of the survey questionnaire was provided to on-site respondents. The items in the questionnaire were adopted and modified from previous related studies. The instrument is divided into four sections: 1) personal information, 2) family background, 3) means in flexible learning, and 4) capability in flexible learning, respectively. The questionnaire comprised close-ended and open-ended questions to gather data on the factors affecting the participants' level of adoption for flexible learning delivery. The questionnaire was developed based on a review of relevant literature and was validated before distribution to the participants.

Data Collection Method

The researchers sought the help of program chairpersons and section advisers from various colleges and campuses to distribute the survey questionnaires to the target respondents to facilitate wider and faster data collection. Walk-in clients who had personal transactions in DEBESMSCAT Main and Cawayan Campus and those who reside inside the campus were also provided with a hard copy of the questionnaire to accomplish. An informed consent form was provided to participants at the beginning of the survey to ensure their voluntary participation. Data gathering lasted for one month until the desired sample size was reached. The collected data was then subjected to data cleaning to exclude incomplete responses.

Data Analysis

Descriptive statistics such as the frequency count and percentage calculation were utilized to determine the distribution of responses across the

different variables under investigation. The data were analyzed using MS Excel statistical package.

RESULTS

Support for Flexible Learning Modality

Family support has been demonstrated to have a major impact on learner study habits and satisfaction, significantly impacting learning attainment (Azhari et al., 2022; Munich, 2014). As highlighted in Figure 2, respondents in this study reported relying on a variety of sources for support during flexible learning, with parents/guardians being the most common (45.3%), followed by self-reliance (18.7%) and support from older siblings (16.4%). However, despite the importance of family support, learners may still face challenges in completing distance learning tasks at home due to factors such as disinterest and home environment-related constraints (Lau & Lee, 2021). Furthermore, parents may lack the time and professional knowledge required to help their children with online learning, exacerbated by the economic and financial constraints imposed by the COVID-19 pandemic (Dong, Cao, & Li, 2020).

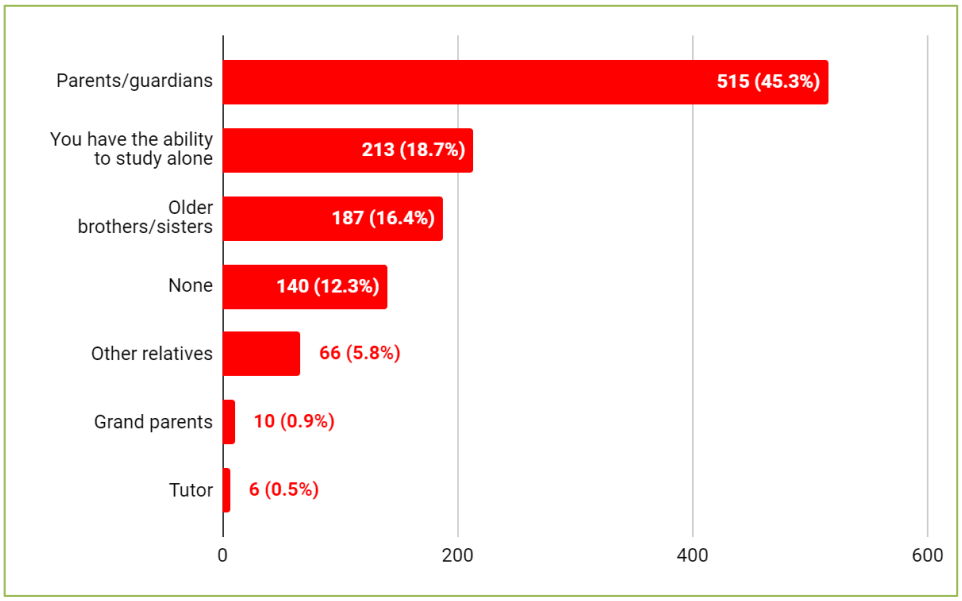


Figure 2. Students perceived support for flexible learning modalities.

Availability of Devices that can be used for Flexible Learning Modality

The availability of technological devices is critical for adopting online learning, especially smartphones that allow students to access course materials and attend virtual classes (Alvarez, 2020). As presented in Figure 3, the majority of respondents (57.4%) reported using their smartphones for flexible learning, with basic cellphones/keypads (24.4%) and cable television (7.4%) being the next most common devices. However, some respondents (2.8%) reported not having access to any device, which may hinder their ability to participate in flexible or online learning environments. Lucas (2014) and Statista (2021)

reported that majority of the youths in the Philippines aged 16 to 24 now own a smartphone. While the availability of technological devices is critical in the adoption of online learning, students must be prepared and familiar with the technology adopted, and stakeholders must provide support and collaboration (Aliyyah et al., 2020).

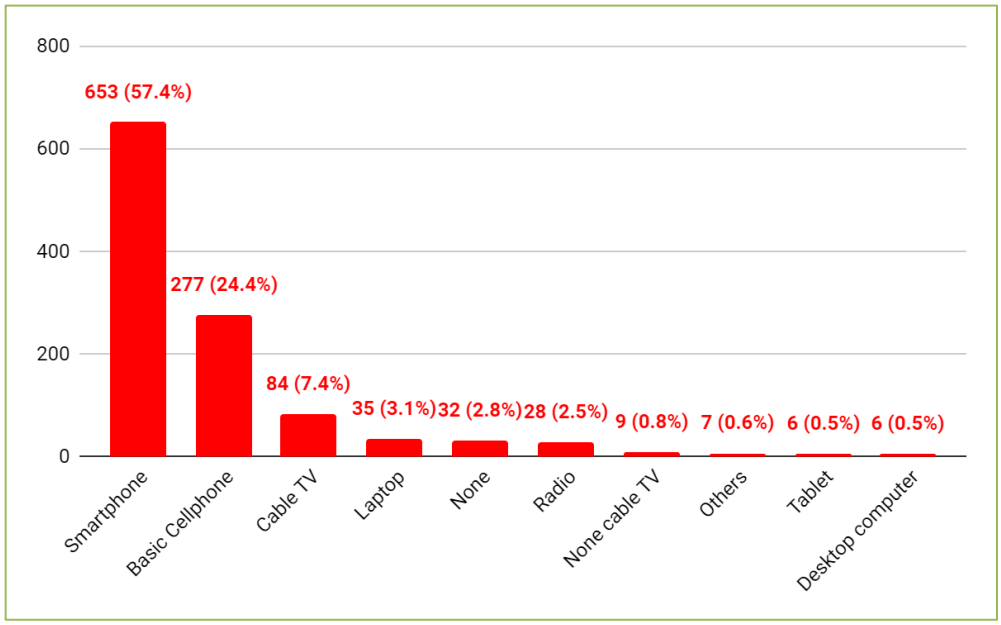


Figure 3. Technological devices that students can use for flexible learning.

Students' Internet Accessibility

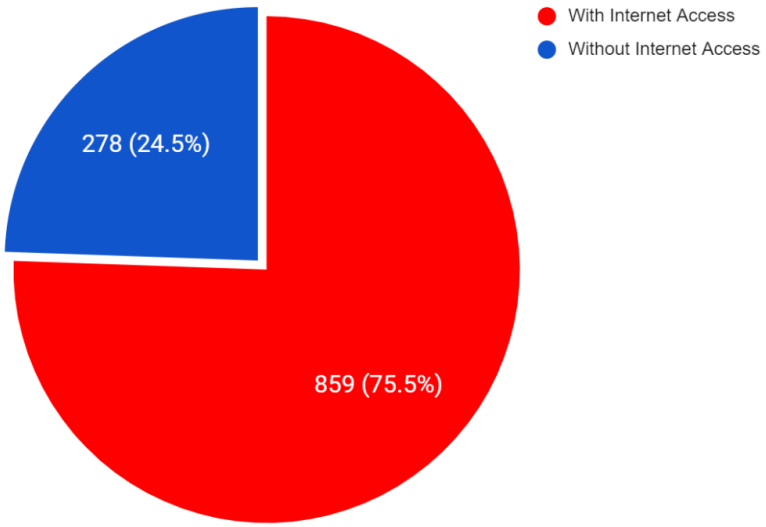


Figure 4. Percentage of students with and without access to the internet.

Internet accessibility is a vital component in flexible learning, with the availability and sustainability of internet connection being crucial in the effective delivery and adoption of online learning (Agormedah et al., 2020; Agung, Surtikanti, & Quinones, 2020; Alvarez, 2020; Bhuana & Apriliyanti,

2021). As shown in Figure 4, the majority of respondents (75.5%) believed they had internet access, while a significant minority (24.5%) did not. These findings are consistent with Statista (2021) projections that more than half of the Philippines' population is already online, with persons aged 16 and up being the majority of the digital population. However, students living in rural and suburban areas with limited internet access and power supply may still experience difficulties accessing the internet due to poor signal reception (Bhuana & Apriliyanti, 2021; Magsambol, 2020).

Means of Internet Connectivity for Students

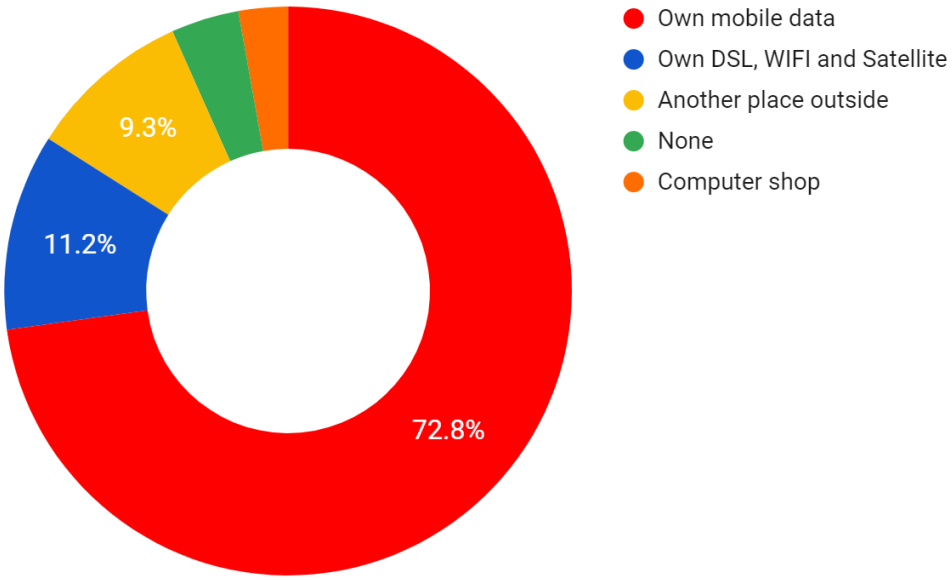


Figure 5. Students' means to access the internet.

Figure 5 illustrates that the majority of the students (72.8%), use their mobile data to access the internet. This result is consistent with Statista's (2021) report that 73% of the Philippine population in 2020 used their mobile phones to access the internet. This reliance on mobile data is due to the limited availability of high-speed internet in most areas in Masbate Philippines, where Digital Subscriber Line (DSL) or home fiber networks are not widely available (Bueno & Pacis, 2020; Magsambol, 2020). Furthermore, some students (11.2%) use their own DSL, Wi-Fi, or satellite networks, while other students (9.3%) rely on their neighbors' Wi-Fi connections or PESOnet residential Wi-Fi networks. PESOnet works like a vendo machine that allows students to connect to the internet starting at one peso for a 5-minute access (Pescovitz, 2022). A significant minority (3.9%) indicated having no access to any internet or data connections at all, while others (2.8%) visit internet shops to access the internet. While mobile data may be slow compared to other internet connection types, students in rural areas have limited options for high-speed internet access. However, students who are disadvantaged financially may struggle to participate in online learning due to a lack of mobile load credits, which can cause significant anxiety (Irawan, Dwisona, & Lestari, 2020, Magsambol, 2020).

These students have fewer learning opportunities in terms of time and learning experiences (Bonal & González, 2020; Lestiyanawati, 2020).

Preferred Set-up in Flexible Learning

As depicted in Figure 6, majority (51.2%) of the students prefer face-to-face learning set-up, while others (23.5%) believe they learn best through online learning set-up, and modular learning set-up (22.9%). Although students may be prepared and capable of utilizing online and modular learning modalities, most prefer the face-to-face learning set-up, as it is more convenient and suitable for them. This result is consistent with Penuliar et al. (2021) findings that most students prefer partially online-and-offline instruction delivery to fully online instruction. Combining synchronous (virtual) and asynchronous (partially online) approaches is crucial for enhancing student satisfaction (Elshami et al., 2021). However, students' unfamiliarity with these approaches may hinder the succesful adoption of various applications for online learning (Al-Kumaim et al., 2021).

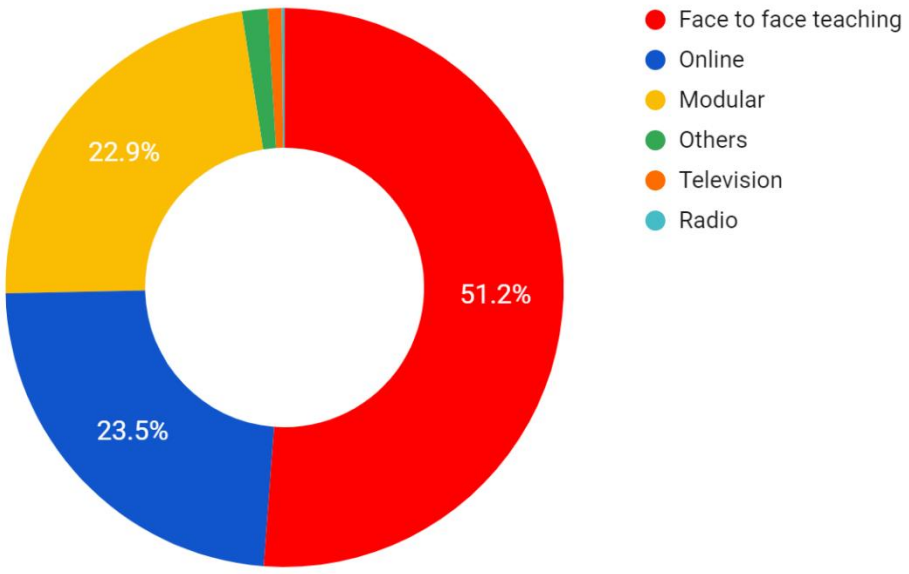


Figure 6. Students' preferrences in flexible learning delivery.

Main Barriers in Flexible Learning Modality Adoption

Figure 7 shows that the main perceived barriers to a flexible learning environment are financial constraints related to mobile load credits (32.9%) and unstable internet connection (31.4%). The unavailability of gadgets/equipment is also a significant barrier for some students (15.2%). Other barriers include noise and social media use (6.8%), household chores (3.3%), inability to study alone (2.4%), health issues (2.1%), and lack of a conducive space to study inside the house (1.8%). Despite having family support, devices for online learning, and access to the internet, a significant number of students struggle due to financial constraints. These findings support and add to the growing number of previously identified challenges such as financial constraints, absence of reliable internet access, unavailability of devices, and lack of emotional and affective

support as significant barriers to the successful implementation of online, blended as well as flexible learning modalities in higher education institutions (Alvarez, 2020; Agormedah et al., 2020; Agung, Surtikanti, & Quinones, 2020; Bhuana & Apriliyanti, 2021; Bonal & González, 2020; Dong, Cao, & Li, 2020; Gayon & Tan, 2021; Gocotano et al., 2021).

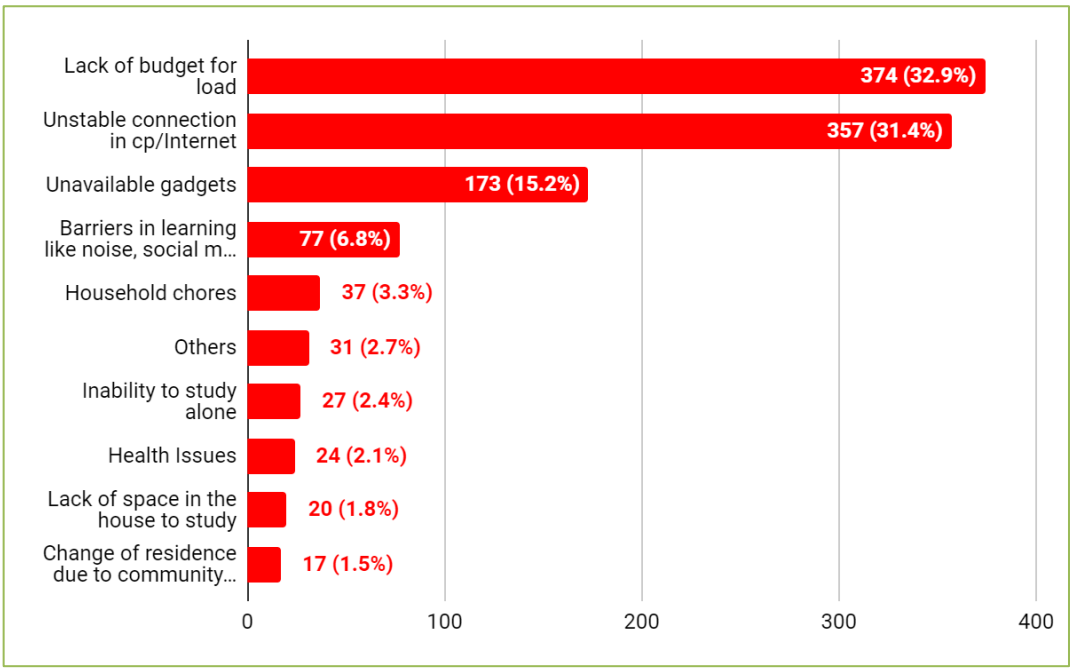


Figure 7. Students' perceived barriers to the adoption of flexible learning modality.

CONCLUSIONS AND RECOMMENDATIONS

Family support plays a significant role in learner study habits and satisfaction in flexible learning. Correspondingly, respondents in this study relied heavily on parents and guardians for support during flexible learning. However, despite the importance of family support, learners may still face challenges due to factors such as disinterest and home environment-related constraints. The availability of technological devices is critical for the adoption of online learning, with smartphones being the most commonly used device. Internet accessibility is also crucial for the effective delivery and adoption of online learning. While a majority of respondents believed they had access to the internet, students in rural and suburban areas may still experience difficulties accessing the internet due to poor signal reception. The reliance on mobile data is due to the limited availability of high-speed internet in most areas in Masbate, Philippines. Financial constraints related to mobile load credits and unstable internet connection were perceived as the significant barriers to flexible learning modalities. While most students prefer face-to-face learning set-up, combining synchronous and asynchronous approaches is crucial for enhancing student satisfaction.

Ultimately, efforts should be made to address the financial barriers to flexible learning, such as providing subsidies or financial assistance for mobile

load credits and internet connectivity for students from disadvantaged backgrounds as well as exploring alternative modes of learning, such as modular and blended learning to cater to different learner needs and preferences. By addressing these challenges, learners can have a more positive and productive distance learning experience, leading to better academic outcomes and future success.

ACKNOWLEDGMENT

The researchers are indebted to the unwavering support of the DEBESMSCAT key officials as well as to the program chairpersons of various colleges for their cooperation and support in accomplishing this research study.

REFERENCES

Agormedah, E. K., Henaku, E. A., Ayite, D. M. K., & Ansah, E. A. (2020). Online learning in higher education during COVID-19 pandemic: A case of Ghana. *Journal of Educational Technology and Online Learning, 3*(3), 183-210. https://doi.org/10.31681/jetol.726441

Agung, A. S. N., Surtikanti, M. W., & Quinones, C. A. (2020). Students' perception of online learning during COVID-19 pandemic: A case study on the English students of STKIP Pamane Talino. *SOSHUM: Jurnal Sosial Dan Humaniora, 10*(2), 225-235. http://dx.doi.org/10.31940/soshum.v10i2.1316

Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The perceptions of primary school teachers of online learning during the COVID-19 pandemic period: A case study in Indonesia. *Online Submission, 7*(2), 90-109. https://www.jstor.org/stable/48710085

Al-Kumaim, N. H., Alhazmi, A. K., Mohammed, F., Gazem, N. A., Shabbir, M. S., & Fazea, Y. (2021). Exploring the impact of the COVID-19 pandemic on university students' learning life: An integrated conceptual motivational model for sustainable and healthy online learning. *Sustainability, 13*(5), 2546. https://doi.org/10.3390/su13052546

Alvarez, A. J. (2020). The phenomenon of learning at a distance through emergency remote teaching amidst the pandemic crisis. *Asian Journal of Distance Education, 15*(1), 127-143. https://doi.org/10.5281/zenodo.3881529

Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human behavior and emerging technologies, 2*(2), 113-115. https://doi.org/10.1002/hbe2.191

Bhuana, G. P., & Apriliyanti, D. L. (2021). Teachers' Encounter of Online Learning: Challenges and Support System. *Journal of English Education and Teaching, 5*(1), 110–122. https://doi.org/10.33369/jeet.5.1.110-122

Bonal, X., & González, S. (2020). The impact of lockdown on the learning gap: family and school divisions in times of crisis. *International Review of Education, 66*(5), 635-655. https://doi.org/10.1007/s11159-020-09860-z

Bueno, A., & Pacis, J. (2020, May). As COVID-19 forces life to move online, who is left behind? In *CNN Philippines Online*. https://www.cnnphilippines.com/life/culture/2020/5/20/internet-access-pandemic.html

Camara, J. S. et al. (2020). Management Practices of Pre-college research as Basis for Policy a Framework. *Elementary Education Online*. Vol. 19, No. 4. https://doi.org/10.17051/ilkonline.2020.04.214

Cassidy, A., Fu, G., Valley, W., Lomas, C., Jovel, E., & Riseman, A. (2016). *Flexible Learning Strategies in First through Fourth-Year Courses*. Collected Essays on Learning and Teaching, Vol. IX. https://doi.org/10.22329/celt.v9i0.4438

Chaeruman, U. A., Wibawa, B., & Syahrial, Z. (2018). Determining the appropriate blend of blended learning: A formative research in the context of spada-Indonesia. *American Journal of Educational Research, 6*(3), 188–195. https://doi.org/10.12691/education-6-3-5

Commission on Higher Education. (2020). Guidance on the implementation of flexible learning. In *CHED Memorandum No. 04, series of 2020*. Commission on Higher Education, Quezon City, Philippines. https://ched.gov.ph/wp-content/uploads/DRAFT-Guidelines-Flexible-Learning_for-Public-Consultation.pdf

Coomey, M., & Stephenson, J. (2018). Online learning: It is all about dialogue, involvement, support and control—according to the research. *In Teaching & learning online* (pp. 37-52). Routledge.

Delgado, J. & Arellano, J. (2021). Phenomenological Study of the Lived Experiences of Graduate Students Adapting Flexible Learning Modality Due to COVID-19 Pandemic. *Asian Journal of Education and Social Studies, 15*(4), 7-16

Dong, C., Cao, S., & Li, H. (2020). Young children's online learning during COVID-19 pandemic: Chinese parents' beliefs and attitudes. *Children and youth services review, 118*, 105440. https://doi.org/10.1016/j.childyouth.2020.105440

Elshami, W., Taha, M. H., Abuzaid, M., Saravanan, C., Al Kawas, S., & Abdalla, M. E. (2021). Satisfaction with online learning in the new normal: perspective of students and faculty at medical and health sciences colleges. *Medical Education Online, 26*(1), 1920090. https://doi.org/10.1080/10872981.2021.1920090

Feldhammer-Kahr, M., Dreisiebner, S., Arendasy, M., & Paechter, M. (2021). One month before the pandemic: students' preferences for flexible learning and what we can learn. *Psychological Applications and Trends*, 187-191. https://doi:10.36315/2021inpact039

Gayon, R., & Tan, D. (2021). Experiences of higher education institution (HEI) teachers in the implementation of flexible learning. *Science International, 33*(1), 47-52.

Gocotano, T. E., Jerodiaz, M. A. L., Banggay, J. C. P., Nasibog, H. B. R., & Go, M. B. (2021). Higher Education Students: Challenges on Flexible Online Learning Implementation in the Rural Areas: A Philippine Case. *International Journal of Learning, Teaching and Educational Research, 20*(7). https://doi.org/10.26803/ijlter.20.7.15

Huang, R.H., Liu, D.J., Tlili, A., Yang, J.F., Wang, H.H., et al. (2020). *Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese experience in Maintaining Undisrupted Learning in COVID-19 outbreak*. Beijing: Smart Learning Institute of Beijing Normal University. https://tc.computer.org/tclt/10-1109-2020-02002/

International Finance Corporation (IFC). (2007, May). IFC Helps Bring Affordable Electricity to Underdeveloped Province in the Philippines. https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=22028

Irawan, A. W., Dwisona, D., & Lestari, M. (2020). Psychological impacts of students on online learning during the pandemic COVID-19. *KONSELI: Jurnal Bimbingan dan Konseling (EJournal), 7*(1), 53-60. https://doi.org/10.24042/kons.v7i1.6389

Januszewski A, & Molenda, M. (2007). *Educational Technology: A Definition*. New York, NY: Lawrence Erlbaum.

Joan, D. R. (2013). Flexible Learning as New Learning Design in Classroom Process to Promote Quality Education. *Journal on School Educational Technology, 9*(1), 37-42.

Lau, E. Y. H., & Lee, K. (2021). Parents' views on young children's distance learning and screen time during COVID-19 class suspension in Hong

Kong. *Early Education and Development, 32*(6), 863-880. https://doi.org/10.1080/10409289.2020.1843925

Lee, S. J., Srinivasan, S., Trail, T., Lewis, D., & Lopez, S. (2011). Examining the relationship among student perception of support, course satisfaction, and learning outcomes in online learning. *The internet and higher education, 14*(3), 158-163. https://doi.org/10.1016/j.iheduc.2011.04.001

Lestiyanawati, R. (2020). The strategies and problems faced by Indonesian teachers in conducting e-learning during COVID-19 outbreak. *CLLiENT (Culture, Literature, Linguistics, and English Teaching), 2*(1), 71-82. https://doi.org/10.32699/cllient.v2i1.1271

Lo, C. M., Han, J., Wong, E. S., & Tang, C. C. (2021). Flexible learning with multicomponent blended learning mode for university chemistry courses in the pandemic of COVID19. *Interactive Technology and Smart Education, 18*(2), 175-188. https://doi.org/10.1108/ITSE-05-2020-0061

Lucas, D. L. (2014, December 12). *Using smartphones among Filipinos' top daily activities*. http://business.inquirer.net/183389/using-smartphones-among-filipinos-topdaily-activities

Magsambol, B. (2020, Apr). During pandemic, student climbs a mountain to send class requirement. In *Rappler Online*. https://www.rappler.com/nation/259407-student-climbs-mountain-send-class-requirement-coronavirus-pandemic/

Muftahu, M. (2020). Higher education and Covid-19 pandemic: matters arising and the challenges of sustaining academic programs in developing African universities. *International Journal of Educational Research Review, 5*(4), 417-423. https://doi.org/10.24331/ijere.776470

Müller, C., & Milderbenger, T. (2021). Facilitating flexible learning by replacing classroom time with an online learning environment: A systematic review of blended learning in higher education. *Educational Research Review, 34*, 1-16. https://doi.org/10.1016/j.edurev.2021.100394

Munich, K. (2014). Social Support for Online Learning: Perspectives of Nursing Students. *International Journal of E-Learning & Distance Education / Revue Internationale Du E-Learning Et La Formation à Distance, 29*(2). Retrieved from https://www.ijede.ca/index.php/jde/article/view/891

Penuliar, A. J. M., Guinto, V. M. R., Oclay, A. D., Soriano, P. C. A. V., Sison, M. M., Camara, J. S., ... & Bernardo, J. V. (2021). Offline or Online: How Should Biology Be Taught in a Flexible Learning Modality in the Philippines. *Southeast Asian Journal of Science and Technology, 6*(1), 30-38.

Retrievedfrom https://www.sajst.org/online/index.php/sajst/article/view/162

Pescovitz, D. (2022, Jan). *Internet vending machines sell Web access in five minute increments*. https://boingboing.net/2022/01/20/internet-vending-machines-sell-web-access-in-five-minute-increments.html

Rizvi, S. A. T. & Eckel, P. (2020). *Colleges can help win the war against COVID-19*. https://www.insidehighered.com/views/2020/04/02/colleges-can-lead-efforts-againstpandemic-have-impact-beyond-campus-borders

Shurville, S., O'Grady,T., and Mayall,P. (2008). Educational and institutional flexibility of Australian Educational Software. *Campus-Wide Information Systems, 25* (2), 74 – 84. https://doi.org/10.1108/10650740810866576

Statista (2021, Aug). *Number of internet users Philippines 2017-2026*. https://www.statista.com/statistics/221179/internet-users-philippines/

Tam, G. & Diana El-Azar (2020). *3 ways the coronavirus pandemic could reshape education*. https://www.weforum.org/agenda/2020/03/3-ways-coronavirus-is-reshaping-educationand-what-changes-might-be-here-to-stay/

Tuga, B. J., Jocson, J. V., & Mabunga, R. A. S. (2021). The impact of COVID-19 on a Philippine university: Challenges and responses towards a new normal in education. *AsTEN Journal of Teacher Education, 4.*

UNESCO. (2020). UNESCO COVID-19 Education Response: How Many Students Are at Risk of Not Returning to School? Advocacy paper. Paris, France. https://unesdoc.unesco.org/ark:/48223/pf0000373992