Examining the Interrelationship between Operational School Support and Student Challenges of Students in the Full Online Learning

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A B S T R A C T

The 2020 global pandemic necessitated changes in various sectors, including economic, business, and academic landscapes. In response to the escalating COVID-19 cases, national governments worldwide implemented stringent measures, including movement control policies and the adoption of innovative educational practices. This study focused on the transition of Philippine educational institutions from face-to-face to remote, blended, modular, and online learning modalities. The study looked into the effects of online learning, particularly its potential to enhance students' academic performance through the development of computer and information literacy (CIL), self-directed learning (SDL), and motivation for learning (MOL) levels. The study specifically investigated the challenges faced by students and teachers in selected schools in South Manila City, Philippines, focusing on technological services, time management, and learning approaches. Identified challenges namely technological services, time management, and learning approaches were operationally used as study variables to assess the impact of these challenges on operational school support in the context of full online learning modalities. Findings showed operational school support is significantly associated with the challenges encountered by students during full online learning. A significant difference was reported between operational school support and technological services provided to the students during full online learning modality. Further, it showed significant relationships between institutional support (from both private and public sectors) and broader challenges, such as cost implications, network connectivity, online behavioral experiences, feedback mechanisms, training adequacy, content relevance, self-directed learning capabilities, life satisfaction, and academic satisfaction. Issues like access to technology, availability of support systems, online conduct, pedagogical methodologies, communication dynamics, attitudes arose during online education, and the use of distance learning modalities showed no significant variance across institution types.

RESUMO

A recente pandemia global de 2020 exigiu mudanças em vários sectores, incluindo o panorama económico, empresarial e académico. Em resposta à escalada dos casos de COVID-19, os governos nacionais em todo o mundo implementaram medidas rigorosas, incluindo políticas de controlo de movimentos e a adopção de práticas educativas inovadoras. Este estudo concentrou-se na transição da instituição educacional filipina das modalidades de aprendizagem presencial para remota, combinada, modular e on-line. O estudo analisou os efeitos da aprendizagem online, particularmente o seu potencial para melhorar o desempenho académico dos alunos através do desenvolvimento de níveis de literacia informática e informacional (CIL), aprendizagem auto-dirigida (SDL) e motivação para a aprendizagem (MOL). O estudo investigou especificamente os desafios enfrentados por alunos e professores em escolas selecionadas na cidade de South Manila, Filipinas, concentrando-se em serviços tecnológicos, gestão de tempo e abordagens de aprendizagem.Os desafios identificados, nomeadamente serviços tecnológicos, gestão do tempo e abordagens de aprendizagem, foram utilizados operacionalmente como variáveis de estudo para avaliar o impacto destes desafios no apoio escolar operacional no contexto de modalidades de aprendizagem totalmente online. As descobertas mostraram que o apoio escolar operacional está significativamente associado aos desafios encontrados pelos alunos durante a aprendizagem totalmente online. Foi relatada uma diferença significativa entre o apoio escolar operacional e os serviços tecnológicos prestados aos alunos durante a modalidade de aprendizagem totalmente online. Além disso, houve uma diferença na gestão do tempo dos alunos e nas abordagens de aprendizagem dos alunos.

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Introduction

The global pandemic outbreak that happened in 2020 caused significant shifts from the normal operations in economic, business, academic and other aspects in almost all of the countries around the world. The increasing reported cases forced the government to impose movement control policies to lessen infections including innovations in schools. In March 2020, the Philippine government strictly imposed stay at home, social distancing and prevented opening face-to-face classes to stop the virus from spreading fast. Schools around the country implemented remote, blended, modular and online learning modalities as innovations for the conduct of classes from the Department of Education and the Commission on Higher Education of the Philippines. The implications of online learning represent a focal point for universities, serving as an instructional approach anticipated to enhance students' academic performance through the augmentation of computer/ literacy competency (CIL), self-directed learning (SDL), and motivation for learning (MOL) level (Allam et al., 2020). This study explored the different challenges that have been encountered by the students and teachers at selected universities in the South Manila City, Philippines. This study explored the different challenges that have been encountered by the students and teachers using selected universities in the South Manila City, Philippines as sample cases.

Using the challenges identified in the literature review, i.e. technological services, time management, and learning approach, it aimed to assess the influence of these challenges on operational school support when undertaken within the context of full online learning modalities. It utilized SPSS (Statistical Package for the Social Sciences) software to arrive at a correlational analysis which provided confirmation to the proposed hypothesis, i.e.:

H01: Online operational support has no direct relationship to the technological challenges students experienced during full online learning modality.

H02: Online operational support has no direct relationship to challenges on operational support received by students during full online learning modality.

H03: Online operational support has nothing to do with the school life balance experienced by students.

The statement of the problem supported the basic assumption that operational school support has significant association with the identified challenges experienced by students during full online learning.

Literature review

The onset of the COVID-19 pandemic has seriously affected all types of learning institutes globally starting from primary to tertiary colleges and universities to the centers of higher education. To curb the spread of the virus by flattening the "growth curve" strict

measures of social distancing are in place globally, which has in turn resulted in the physical closure of all types of learning institutes. This has forced the educational institutes worldwide to resort to an "online only" exclusivity model for the purpose of teaching and learning. (Pal & Vanijja, 2020). As argued by Collado, et al. (2021), the challenges in this transition are rooted in decades-long underinvestment in distance learning evidenced by the inadequate information and communication infrastructure in the country. It is indeed another challenge when a university or a college is run by the government or the private sector, because not all of these higher education institutions are prepared for the challenges brought by the sudden shift of teaching and learning modality. Due to the absence of any physical classes, it is important to investigate the use, acceptance, attitudes and beliefs towards online learning of the students and parents as well. In a study made by (Donga, Caob & Lia, 2020), results of a large-scale online survey show that the parents generally had negative beliefs about the values and benefits of online learning and preferred traditional learning in early childhood settings. Parents tended to resist and even reject online learning for three key reasons: the shortcomings of online learning, learners' inadequate self-regulation, and lack of time and professional knowledge in supporting children's online learning. Moreover, the Chinese parents were neither trained nor ready to embrace online learning. Lastly, the hardship caused by the COVID-19 pandemic has made parents suffer, thus more resistant to online learning at home.

According to (Patricia, 2020), students showed a stronger preference for face-to-face learning than for online learning. Also, students who preferred face to-face learning struggled with adapting to online learning. This study also showed that students were statistically significantly more motivated before the stay-at-home order than after the stay-at-home order. Furthermore, students reported a decrease in skills in four out of the five items: ability to complete assignments on time; ability to be successful in classes; ability to discuss topics with classmates and/or professors; and time management skills. Only one item, knowledge of new learning tools (analyzing/creating videos, online quizzes, etc.), showed perceived improvement. Interestingly, students reported that grades did not change, However, results demonstrated that, overall, students perceived a decrement in each of the remaining five constructs: knowledge or learning (related to school) concentration, level of engagement, class attendance, and interest and enthusiasm. In terms of accessibility, students' scores indicated they had access to technological tools most of the time.

A study made by (Hussein, 2016) showed that attitude is an important factor that contributes to the intention to use E-Learning. The results indicate that attitude and intention to use E-Learning have a positive relationship with each other. A surprise finding of this study showed that perceived ease of use and perceived usefulness were not significant predictors in influencing the intention to use E-learning.

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Content is important, but without the proper conditions, students may have a negative experience again and their cognitive engagement can drop. Educators must be mindful of these circumstances and promote a positive attitude, encourage motivation, and invite students to rely on their previous knowledge. The more that members of higher education institutions understand the circumstances students are facing, the better they can respond to them (Patricia, 2020). To explore how emergency online learning may influence the adoption of online learning in the future. On one hand, students and professors became more knowledgeable of the tools for remote teaching and learning and, if the learning experience was positive, they may increase the adoption of online learning. Conversely, if the experience was negative, students and/or professors may have a false representation of the online learning environment and avoid it.

Further work is required to explore how inequalities may have impacted students' learning opportunities and outcomes. Some students did not have access to technological tools and/or their family conditions limited their accessibility. More research is needed to reach out to this population and understand the short and long-term effects that the pandemic may have for them (dropouts, failing classes, or the resources that they developed). This would be the most effective way to create strategies and resources so that all students could continue their education. The professors' experience may also be interconnected with the students' learning experiences. Faculty, administrators, and students faced different challenges during the pandemic that may have had repercussions in the teaching and learning processes. As argued by Collado, et al. (2021), the challenges in this transition are deeply rooted in decades-long underinvestment in distance learning evidenced by the inadequate information and communication infrastructure. This inadequacy, further alleviated some of the challenges such as logistical constraints brought by limited resources, heavier workload, and the anxiety rooted in the quality of online teaching. Existing institutional policies and framework must be reviewed and assessed to determine their adequacy in supporting programs and activities aimed at improving the education system and ensuring its resilience during pandemic (Cuaton, 2020).

The pandemic was transformative for many people. More research is needed to understand how the lack of physical contact, the reduction of social interaction, and the negative emotions that the pandemic created (fear, sadness, uncertainty, etc.) influenced students' daily habits (sleep, eating, watching TV, etc.) and if changes in their environment and daily lives are related to the students' learning process.

Finally, it is important to compare the students' perceptions of the use and acceptance of emergent online learning between different countries. It will help higher education institutions to determine similarities and differences and develop strategies accordingly given

that the pandemic affected the majority of countries in the world. This is a challenge that students and teachers are all facing, and we can help each other to effectively cope with it.

Methods

The study used quantitative research design using correlational approach to the given operational variables to determine the interrelationships of challenges and student academic performance. A total of nine (9) educational institutions located in the South Manila City, Philippines participated in the online survey

In this study, schools in South Manila, Philippines are classified into two categories: seven (7) private institutions and two (2) public institutions. The study conducted a purposive sampling method with a total of 3,037 respondents: 2,426 of which were from private institutions and 611 students from state universities. Students answered via an online survey using Google forms. The online survey questionnaire was distributed through each representative researcher of all participating schools.

Results and Discussion

Table 1.

Correlation between Type of HEIs in the Area of Technology and Logistics

Technology and Logistics	Private		Public		Cohen's D	T-Value	P-Value
	Mean	SD	Mean	SD			
Cost	4.60	0.92	4.43	0.94	0.181	3.976	**0.000**
Gadgets/Tools and Technology	4.76	0.95	4.71	0.85	0.058	1.269	0.205
Network Connections	4.05	1.29	3.90	1.33	0.114	2.509	**0.012**
Support from Employer/School/Comm unity	4.16	1.09	4.09	1.01	0.069	1.507	0.132

Table 1 illustrates a relationship between students attending private (M = 4.60, SD = 0.92) versus public (M = 4.43, SD = 0.94) educational institutions concerning financial considerations, as evidenced by a statistically significant difference (T = 3.976, p < 0.01). Students from private schools tend to have access to financial resources from familial or institutional sources, enabling them to procure necessary gadgets and internet connectivity for online learning, and they may utilize supplementary platforms beyond those offered by their school. Similarly, private school students express greater satisfaction with internet connectivity (M = 4.05, SD = 1.29) compared to their public school counterparts (M = 3.90, SD

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= 1.33; T = 2.509, p < 0.05), perceiving it as more stable during synchronous and asynchronous classes. However, no significant discrepancy in satisfaction with tools and technology support for online learning is discerned between private (M = 4.76, SD = 0.95) and public school students (M = 4.71, SD = 0.85; T = 1.269, p = .21). Both cohorts exhibit contentment with the accessibility and familiarity of online education tools, aligning with previous research indicating Filipino students' readiness in terms of computer/internet self-efficacy for e-learning (Reyes et al., 2021). Additionally, there exists no significant contrast in satisfaction levels regarding institutional support for gadgets, internet connectivity, subsidies, and technical aspects of online learning provided by the Information Technology Office between private (M = 4.16, SD = 1.09) and public school students (M = 4.09, SD = 1.01; T = 1.507, p = .13).

Table 2.

Correlation between the Type of HEIs in the Area of Operational

Operational	Private		Public		Cohen's D	T-Value	P-Value
	Mean	SD	Mean	SD			
Experiences	5.29	0.72	5.38	0.61	-0.118	-2.592	**0.010**
Feedback and Support	4.46	0.95	4.32	0.97	0.148	3.249	**0.001**
Proper Online Behavior	5.12	0.75	5.11	0.75	0.016	0.343	0.732
Online Education Implementation Training	4.00	1.29	3.77	1.31	0.182	4.001	**0.000**
Online Teaching Strategies with Students	4.38	1.15	4.29	1.20	0.085	1.859	0.063
Open Communication	4.42	1.02	4.39	1.02	0.027	0.584	0.559
Relevance on Course Contents for Lab/Non-Lab Courses	4.40	1.05	4.25	1.14	0.142	3.123	**0.002**
Self-Directed Learning	4.43	1.02	4.14	1.12	0.286	6.273	**0.000**

When it comes to operational school support, five variables displayed noteworthy differences between students attending private and public educational institutions. These variables encompassed experiences concerning online behavior, feedback and support mechanisms, training for online education implementation, relevance of online learning vis-à-vis course content, and self-directed learning abilities. In terms of feedback and support, students from private schools (M = 4.46, SD = 0.95) exhibited enhanced interaction and feedback reception from instructors compared to their public-school counterparts (M = 4.32, SD = 0.97; T = 3.249, p < .05). Additionally, the former received prompt feedback from their

IT Office and pertinent reminders from faculty regarding online etiquette to a greater extent than their public-school counterparts.

Although both private and public school students received training in navigating online learning, a significant disparity in training experiences emerged between them, with students from private schools (M = 4.00, SD = 1.29) reporting higher levels of participation and satisfaction with training prior to the commencement of online classes compared to those from public schools (M = 3.77, SD = 1.31; T = 4.00, p < .01). Private school students perceived their training as accessible, efficient, and relevant, enabling effective utilization of acquired knowledge, unlike their public-school counterparts.

On the area of self-directed learning experiences, students from private schools (M = 4.43, SD = 1.02) demonstrated superior abilities in managing synchronous and asynchronous class attendance and assignment submissions compared to students from public schools (M = 4.14, SD = 1.12; T = 6.273, p < .01). However, no significant differences were observed in adherence to proper decorum during online classes, satisfaction with teaching strategies, or communication. Both private and public-school students adhered to decorum guidelines, expressed contentment with instructional methodologies and course appropriateness, and reported satisfactory interactions with professors and peers during online classes, fostering an environment conducive to constructive comments and suggestions.

Table 3.

Correlation between the Type of HEIs in the Area of School-Life Balance

School-Life Balance	Private		Public		Cohen's D	T-Value	P-Value
	Mean	SD	Mean	SD			
Change in One's Life Satisfaction	4.20	1.16	4.09	1.23	0.093	2.039	**0.042**
School Life Balance	3.84	1.32	3.50	1.40	0.250	5.488	**0.000**
Time Management	4.03	1.23	3.63	1.42	0.321	7.035	**0.000**

Table 3 showed that when it comes to school-life balance, change in one's life satisfaction, and time management, there are significant differences between the students from private and public schools. Regarding the experience of change in one's life situation as a result of online learning, students from the private schools (M = 4.20, SD = 1.16) show that they are able to adapt and adjust to online instruction as a new learning environment, and that they are able to manage social interactions with peers during online classes better than the students from the public schools (M = 4.09. SD = 1.23); T = 2.039, p < .05. Students from the

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private schools (M = 3.84, SD - 1.32) were able to strike a school-life balance and manage their time (M = 4.03, SD = 1.23) than their counterparts in the public schools (M = 3.50. SD = 1.40); T = 5.488, p < .01; (M = 3.63, SD = 1.42); T = 7.035, p < .01. Private school students were able to manage school and household responsibilities, maintain relationships with family and peers while engaging in online classes, and time for school, peers, family, and self.

Table 4.

Correlation between the Type of HEIs in the Area of Attitude

Attitude	Private		Public		Cohen's D	T-Value	P-Value
	Mean	SD	Mean	SD			
Academic Satisfaction	4.13	1.06	3.86	1.15	0.257	5.635	**0.000**
Attitude Toward Online Education	3.08	1.49	3.03	1.48	0.033	0.718	0.473
Beliefs in Online Learning	3.91	1.44	3.60	1.53	0.207	4.539	**0.000**
Distance Education Modalities	2.87	1.60	2.74	1.60	0.079	1.732	0.083

Table 4 showed there was no significant relationship found between the students from the private schools (M = 3.08, SD = 1.49) and those in the public school (M = 3.03, SD = 1.48; T = 0.718, p = .47. Students from both groups disagree that face-to-face is the same as online learning but agree that online is a good option for learning. The latter is consistent with the findings of Xhaferi & Xhaferi (2020).

On distance education modalities, there was also no significant relationship between the private (M = 2.87, SD = 1.60) and those students in the public schools (M = 2.74. SD = 1.60, p = 0.08, both groups disagree that synchronous or asynchronous online classes or flexible learning is the same as face-to-face classes. However, more students from the private schools (M = 3.91, SD = 1.44) believe that active engagement is present in both synchronous and asynchronous online classes, than those in the public school (M = 3.60, SD = 1.53; T = 4.539, p < .05. In like manner, the students from private schools (M = 4.13, SD = 1.06) are more satisfied with their academic experience during online learning than the students from public schools (M = 4.13, SD = 1.06; T = 5.635, p < .05.

The academic satisfaction pertains to adequacy and manageability of synchronous and asynchronous materials, being able to get the same understanding of the course in an online environment and being able to accomplish and comply with the academic requirements.

Results thus rejected the null hypotheses on the basis that there were significant relationships between the operational support from both the private and public higher education institutions on the following challenges: cost, network connections, experiences of online behavior, feedback and support, training on online education implementation, relevance of online learning on course content, and self-directed learning, school-life balance, change in one's life satisfaction, and time management, beliefs in online learning, and academic satisfaction.

On the other hand, there were no statistically significant disparities emerged between operational support of institutions both private and public types and challenges on the access to gadgets, support provisions, online conduct, pedagogical methodologies employed by professors, communication dynamics, attitudes espoused toward online education, and utilization of distance education modalities. However, some studies also describe technological support that can leverage learning experience among elementary aged students during the remote learning provided that teachers are adequately trained, particularly in the use of interactive methods (Pratt, 2022).

When teachers are equipped with appropriate skills needed for online learning, such as navigation of adaptive learning platforms, various access to multimedia resources, and artificial intelligence (AI) tools for assessment, it may yield a significant increase in the learning experience as well (Nhi & Nhan, 2022).

Past literature provided us context on the effect of face-to-face modality to the learning experience of students. With the study findings, it showed that the drastic shift to online learning also created challenges on the learning experience of students thus can also explore further studies on how these new challenges be used to lay groundwork on new learning styles and new pedagogical approaches so as to minimize, if not eradicate the challenges students face during online learning.

Conclusion

The study highlighted the important role of institutional support mitigating the challenges of fully online education. Inferential findings noted highlights on operational school support and key difficulties such as technological services, time management, and learning approaches, specifically significant relationships between institutional support (from both private and public sectors) and broader challenges, such as cost implications, network connectivity, online behavioral experiences, feedback mechanisms, training adequacy, content relevance, self-directed learning capabilities, life satisfaction, and academic satisfaction. Additionally, challenges like access to technology, availability of support systems, online conduct, pedagogical methodologies, communication dynamics, attitudes arose during online

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education, and the use of distance learning modalities showed no significant variance across institution types. These results provide critical implications for future similar research especially when educational disruption calls for a quick shift to full online learning modality. Future studies may also look into effective mechanisms on the delivery of comprehensive technological support and customized training programs and capacitation for teachers given the sudden rise of AI- driven assessments.

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