

Learning Under the New Normal: Remote Learning Readiness among Students of a Philippine State University

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Abstract

With the outbreak of COVID-19, education shifted to a new norm with remote learning becoming the primary mode of instruction. This transition highlighted the need to understand students' readiness for this new educational set-up. This study was conducted to assess students' readiness for remote learning at a Philippine State University. It aimed to determine the expectations of the students on remote learning set-up, the challenges faced, and the assistance needed to propose recommendations and interventions to address the challenges and ensure an effective delivery of education through remote learning. The study was conducted through an online survey administered to 238 undergraduate and graduate students. The remote learning readiness survey was adapted from the Online Readiness Assessment by Vicki Williams (2014), which covers areas such as expectations, self-direction, learning preferences, study habits, learning strategies, language skills, technology skills, technology-mediated communication skills, and hardware/software requirements. Results showed that most of the respondents strongly agreed that remote courses are not easier than face-to-face courses. Moreover, a majority reported being self-directed to finish what they started and dedicated specific time to do their coursework. The majority also expressed confidence in navigating the internet and communicating via email and other synchronous platforms. Challenges encountered are poor or unstable internet connections, financial cost of study, heavy academic workload, time management difficulties, unavailability of gadgets and internet data, difficulty in managing distractions, and mental health issues concerns such as anxiety. In response to these challenges, the study proposes several interventions, including academic support, financial assistance, and mental health services.

Keywords: *online learning, quality assurance, remote learning, student engagement, student satisfaction*

Introduction

With the outbreak of COVID-19 in China, which led the World Health Organization (WHO) to declare a global health emergency in March 2020, education has taken its new norm. The pandemic has disrupted education for millions of students worldwide, with the number of those affected growing daily (Ray, 2020).

Despite the many challenges brought on by the pandemic maladies, this pandemic disruption has also highlighted new opportunities in reviving the educational system and ushering the students to a more inclusive, flexible, and compassionate teaching and learning experience.

In response to the local confirmed transmission of COVID-19 in the Philippines, the University installed an academic contingency plan (OVPAA Memorandum No 2020-31) and resumed classes under the remote learning setup. Thousands of students across different University campuses nationwide began the school year not in classrooms but in the safety of their homes (Philippine Star, September 11, 2020).

Remote learning occurs when the learner and instructor, or source of information, are separated by time and distance and cannot meet in a traditional classroom setting (<https://trainingindustry.com/glossary/remote-learning>). Information is typically transmitted via technologies (email, discussion boards, video conference, audio bridge) so that no physical presence in the classroom is required. This format provides an opportunity for students and teachers to remain connected and engaged with the content while working from their homes (Ray, 2020). Opportunities for remote learning are typically linked to emergency situations that pose a threat to student safety.

As cited by Yu et al. (2015), providing adequate support for learners is essential to enhancing their social competencies with instructors and classmates, as well as their communication and technical competencies so that they can have a better learning experience.

One way to accomplish this is by gauging students' readiness for online learning. Success in online education may be defined by students' readiness for online learning (Luu, 2022). Distance learners should be provided the opportunity to develop their competencies or readiness skills to avoid common challenges, particularly those unrelated to course content that could prevent their success in online learning. With this, the efficiency of transitioning to remote learning is dependent on factors such as readiness, technology tools, and overall support infrastructure.

In a new educational set-up, it is important to determine the readiness of the students and understand the challenges they face. A comprehensive understanding of their readiness can provide educators with the needed support and resources for more effective learning, increasing the chances of success among learners (members.aect.org).

Hence, this study addressed the following questions:

1. How ready are the students to transition from a conventional face-to-face learning to a remote learning set-up?
2. What strategies and interventions are necessary to create a remote learning-ready environment?

Objectives

The general objective of the study is to assess the readiness of students from a conventional face-to-face learning set-up to remote learning at the Philippine State University. Specifically, it aims to:

1. Describe the profile of the student-respondents;
2. Assess various aspects of remote learning readiness;
3. Examine the challenges encountered by the students in remote learning;
4. Discuss the assistance needed by the students for remote learning; and,
5. Recommend strategies and interventions to address the challenges toward a remote learning-ready environment.

Relevant Studies

Even before the onset of the COVID-19 pandemic, numerous studies have been published dealing with remote learning. The need for remote education, especially during crises such as the pandemic, necessitates the importance of evaluating its effectiveness, which has led to the increase of related research. Currently, there is increasing attention directed to remote learning in the context of a pandemic. Despite this attention, various factors continue to impact students in a remote learning set-up. This review explores studies on remote learning of students in general, and based on these findings, will assess students' readiness for remote learning.

Modes of Delivery

Transitions from face-to-face teaching to blended, online, or flipped classrooms as an alternate remote delivery mode due to crisis circumstances— happen suddenly and without much prior planning (Iglesias-Pradas, et al., 2021).

In terms of remote learning, two modes of delivery are recognized: synchronous and asynchronous learning. Synchronous learning is a method where learning is facilitated by media in the form of videoconferencing and chat (Hrastinski, 2008). Platforms such as Zoom and Google Meet are usually used for real time interaction between instructors and students. Asynchronous learning, on the other hand, is supported by media such as e-mail and discussion channels (Hrastinski, 2008; Owens et al., 2009). In an asynchronous set-up, learners and instructors are able to communicate at their own convenient time.

Moreover, another approach in remote learning that is gaining attention is blended learning. This concept was introduced by Graham (2006) and consequently described as the integration of both face-to-face and online learning elements.

A study by Hsiao (2010) on student's understanding of synchronous and asynchronous learning found that while students acknowledge the flexibility of asynchronous methods, they are also well aware of the importance of real-time interactions. When compared to employing only one method of learning, a blended approach provides students an avenue for more effective learning (Zhao et al., 2005).

Blended Learning

Blended learning refers to a strategic and systematic approach that combines different times and modes of learning, integrating the best aspects of face-to-face and online interactions using appropriate information and communication technologies. In other words, it is a “thoughtful fusion of face-to-face and online learning experiences” (Garrison & Vaughan, 2008).

According to Graham (2013), as cited by Dziuban et al. (2018), “blended learning is the integration of face-to-face and online instruction now widely adopted across Higher Education”. It is also referred to by some scholars as the “new traditional model” or the “new model” in course delivery.

As described in OVPAA Memorandum No. 2022-88, this refers to the “combination of conventional or traditional learning and modern learning methods using digital learning platforms and tools makes blended learning the ideal learning delivery mode for the post-pandemic era.”

Bautista (2022) describes that blended learning improves the quality of teaching and learning by:

- Providing access to a wide range of learning resources in various media (text, video, audio, multimedia, interactive multimedia);
- Enhancing communication and interaction between teachers and learners and among learners, using various technologies;
- Fostering learner engagement and active learning online and face-to-face;
- Expanding opportunities for collaborative learning online and face-to-face;
- Enabling learning anytime and anywhere and developing independent learning skills; and
- Developing digital skills and, more broadly, digital citizenship. It also provides greater flexibility for institutions, as follows:
 - Avoiding crowding on campus through careful scheduling of face-to-face sessions in different courses;
 - Ensuring learning continuity in case of changes in public health alert levels and other disruptions, through a rapid shift to fully remote or online learning; and
 - Optimal planning of the use of campus facilities and equipment, technology development, and support for teaching and learning to ensure access and learning continuity for all learners, especially those with limited means.

Models of Blended Learning

There are many models of blended learning, including the following models:

Model 1: Blended Online Learning

- a.k.a. Remote Learning Mode
- Used by most schools when the pandemic began
- No in-person or face-to-face sessions
- Utilization of a Learning Management System
- Synchronous + Asynchronous sessions

Model 2: Blended Block Learning

- Independent online study (1 block) + Intensive face-to-face sessions (another block)
- Commonly used by those classes with laboratory courses
- The class is divided into small groups with different schedules for intensive face-to-face sessions

Model 3: Classic Blended Learning

- Alternating or rotating face-to-face sessions + asynchronous online learning
- Used when attending face-to-face meetings on campus is not limited or just has a few restrictions
- Includes the flipped classroom approach

Barriers to Remote and Online Learning

Remote learning poses several challenges to both the learners and instructors, and this study acknowledges the importance of identifying these challenges. However, with the extensive scope of the existing literature on the topic, it is truly a hard task to come up with a substantial judgment. While numerous studies are focused on the instructor's experience, this specific study mainly investigates the learner's perspective. As such, the study utilized the remote learning readiness by Padilla (2020) as adapted from the Online Readiness Assessment by Vicki Williams. This framework considers the following facets in gauging learner's readiness: expectations, self-direction, learning preferences, study habits, learning strategies, language skills, technology skills, technology-mediated communication skills, and hardware/software requirements. In addition, this study reviews other relevant studies describing bottlenecks of students on remote learning which would later provide a solid foundation for the analysis and discussion section of this study.

Student learning is better facilitated if they actively take part in the process (Intrator, 2005). However, with the shift to remote or online learning due to COVID-19, their participation is much more affected. Many students experience anxiety that greatly affects them personally and academically. More demands are laid down on the learners in an online environment when compared to the traditional one (Wolfe, 2000). Some may also have other matters on their hand such as working part-time jobs and shouldering other tasks at home. These circumstances increase student's stress and anxiety making school work less

of a priority (Gillis & Krull, 2020).

In their pilot study on the student barriers to online learning, Muilenburg and Berge (2005), identified six factors that affect students when it comes to online learning. These are (1) time/interruptions which pertain to student's time spent on online learning as well as the disturbances they encounter; (2) infrastructure/support services which refer to matters within the instructor's control; (3) motivation that include psychological issues that students must overcome; (4) prerequisite skills which involve prior knowledge required for a course; (5) technical factors that constitute students' familiarity with software/hardware system for online learning; and (6) social factors which relate to the favorable environment students should have. Later on, Muilenburg and Berge (2005) made some modifications and expanded this list to 47 barriers. Of these barriers, they pointed out that the most significant barrier to students in an online learning set-up is the lack of social interaction. Interaction is defined as "the learner's engagement with the course content, other learners, the instructor, and the technological medium used in the course" (Thurmond, 2003 as cited in Thurmond & Wambach, 2004). Chickering and Ehrmann (1996) further stated that interaction has crucial functions such as the promotion of contact between learners and instructors, initiation of collaboration, facilitation of active learning, and delivery of prompt assessment. Similarly, Gillis and Krull (2020) observed that students during the pandemic suffered considerable hurdles in their learning, including distractions, greater anxiety, and reduced motivation. They also noted that barriers related to the internet and technology were prevalent. The importance of student's interaction with their teachers and peers were mentioned as well. However, this did not necessarily mean the general approval of students when it comes to communication tools such as Zoom.

However, the study of Muilenburg and Berge (2005) only revolved around the "lacking" side concerning distance learning in general. The same goes with the study of Gillis and Krull (2020). According to Baticulon et al. (2021), among the barriers to online learning, the most frequently encountered were difficulty adjusting learning styles, balancing household responsibilities, and experiencing poor communication or a lack of clear directions from educators. Poor communication, whether due to personal reasons or lack of sufficient technology will inevitably lead to low student motivation. The studies were not able to address other substantial aspects such as learner's preferences and strategies for coping with this kind of learning set-up. Thus, this study helped close the gap by gauging the actions or plans of learners as they undergo remote learning.

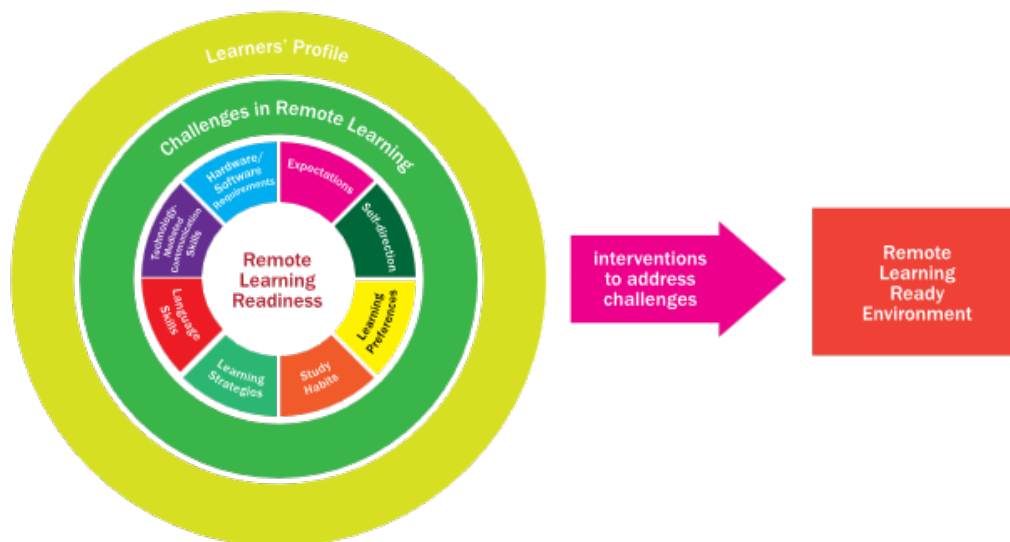
Conceptual Framework

In assessing student's readiness for online learning, this study focused on the facets in learner readiness adapted from Vicki Williams in Padilla (2020). As shown in Figure 1, these facets include expectations, self-direction, learning preferences, study habits, learning strategies, language skills, technology skills, technology-mediated communication skills, and hardware/software requirements. Students transitioning from a conventional face-to-face learning

set-up often face various challenges that impact their readiness for online learning. Additionally, student profiles as well as their personal circumstances, likewise, play a significant role in their readiness for online learning.

One of the most cited e-learning readiness models by Chapnick (2000), as cited by Searle and Waugh (n.d.), support these facets, challenges, and learner's profile as crucial elements in assessing readiness for online learning. Chapnick (2000) identifies eight broad categories of factors that include psychological, sociological, environmental, human resources, financial, technology skill, equipment, and content readiness. These categories align with the factors considered in this study. Subsequently, the challenges faced by the students were closely examined to propose interventions and aimed at fostering a remote learning-ready environment.

Figure 1
Conceptual Framework of the Study



Methodology

The study employed an online survey via Google Forms to obtain the socio-demographic characteristics data of the respondents and to determine the readiness and challenges encountered in remote learning. A total of 238 undergraduate and graduate students participated in the survey.

The questionnaire included statements on various aspects of remote learning readiness by Padilla (2020) as adapted from the Online Readiness Assessment by Vicki Williams. These include expectations, self-direction, learning preferences, study habits, learning strategies, language skills, technology skills, technology-mediated communication skills, and hardware/software requirements. Using a 4-point Likert scale with 1 (strongly disagree) to 4 (strongly agree), the readiness of the students was determined. Also, the

student-respondents were asked about their preferred learning management systems (LMS), the challenges they encountered in remote learning, and the assistance they needed for remote learning.

The data were analyzed using frequency counts, percentages, and mean scores. To analyze student's comments on remote learning, qualitative responses were examined for recurring themes.

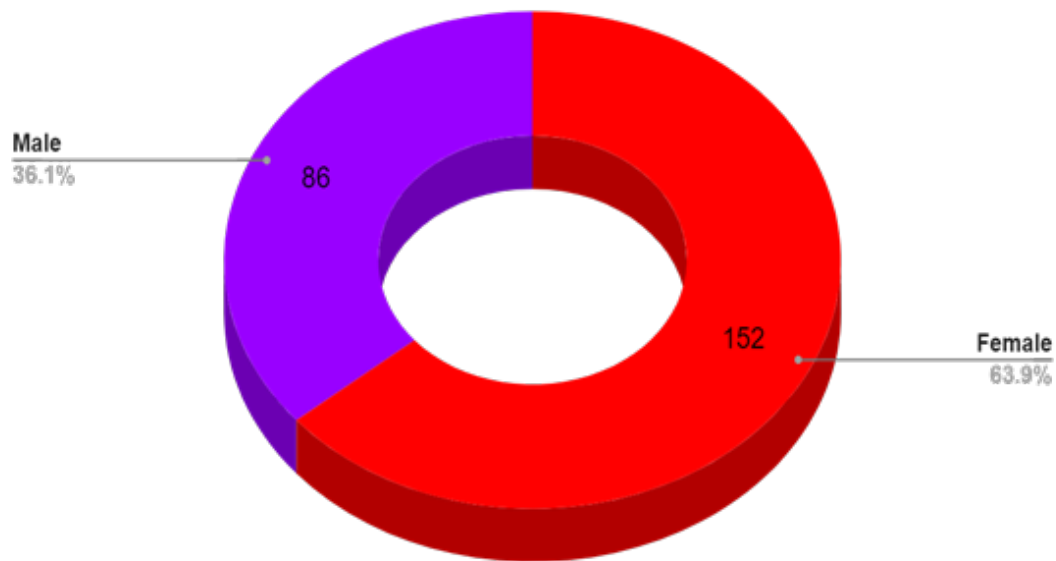
Results and Discussion

Profile of the student-respondents

Participants in this study were composed of undergraduate and postgraduate students studying at the Philippine State University. There were a total of 238 students who participated in the survey. As presented in Figure 2, there were 86 (36.1%) male and 152 (63.9%) female respondents.

Figure 2

Distribution of Respondents by Sex



Meanwhile, Figure 3 shows that 140, or approximately 59% of the respondents have graduated from public high schools while 98, or 41% were from private high schools.

Figure 3
Distribution of the Respondents by Type of High School Graduated From

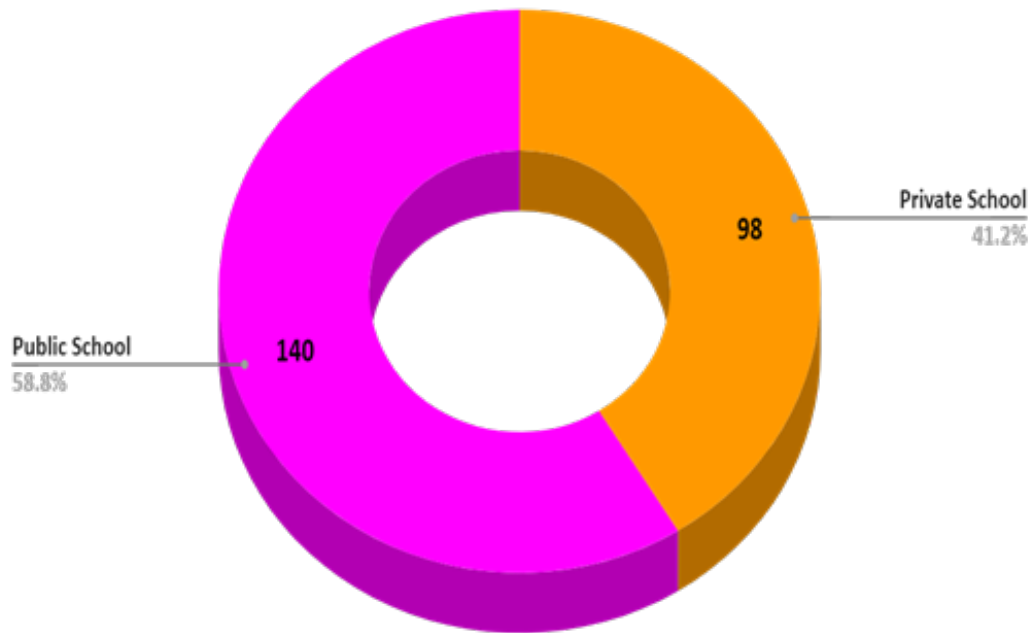


Table 1 also shows the socio-demographic information of the respondents. In addition, the level of education of the respondents was also obtained. There were a total of 203 (85.3%) undergraduate students while the remaining 35 (14.7%) were postgraduate students. For a further breakdown of the former, 44.5% were freshmen, followed by seniors (17.2%), juniors (16.9%), and sophomores (6.7 %).

Table 1
Socio-demographic Profile of the Respondents

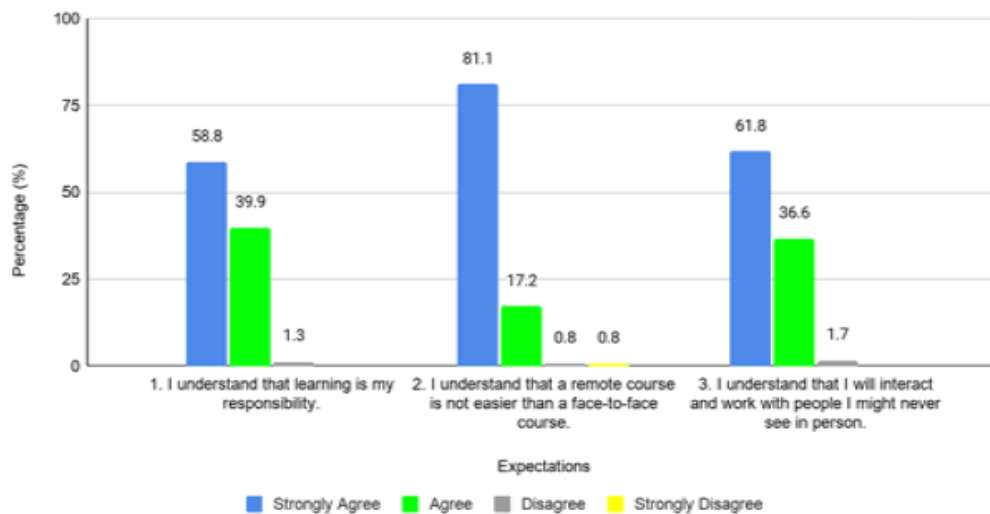
Socio-Demographics	Total	
	No.	%
Sex		
Male	86	36.1
Female	152	63.9
Total	238	100.00
Level of Education		
Undergraduate	203	85.3
Freshman	106	44.5
Sophomore	16	6.7
Junior	40	16.9
Postgraduate	41	17.2
Total	238	100.0
High School Graduated From		

Public High School	140	58.8
Private High School	98	41.2
Total	238	100.0

Gauging the readiness of learners on remote learning helps the instructors and the institution identify the necessary approaches and adjustments to ensure effective education. Moreover, understanding their readiness can provide educators with the needed support and resources for more effective learning and greater chances of success among learners. Thus, this study aimed to determine student's readiness by employing the remote learning readiness framework by Padilla (2020) as adapted from the Online Readiness Assessment by Vicki Williams. Expectations, self-direction, learning preferences, study habits, learning strategies, language skills, technology skills, technology-mediated communication skills, and hardware/software requirements were the key aspects considered. A 4-point Likert scale was utilized to assess these aspects.

Figure 4

Percentage distribution of the level of agreement of the respondents on their expectations of remote learning



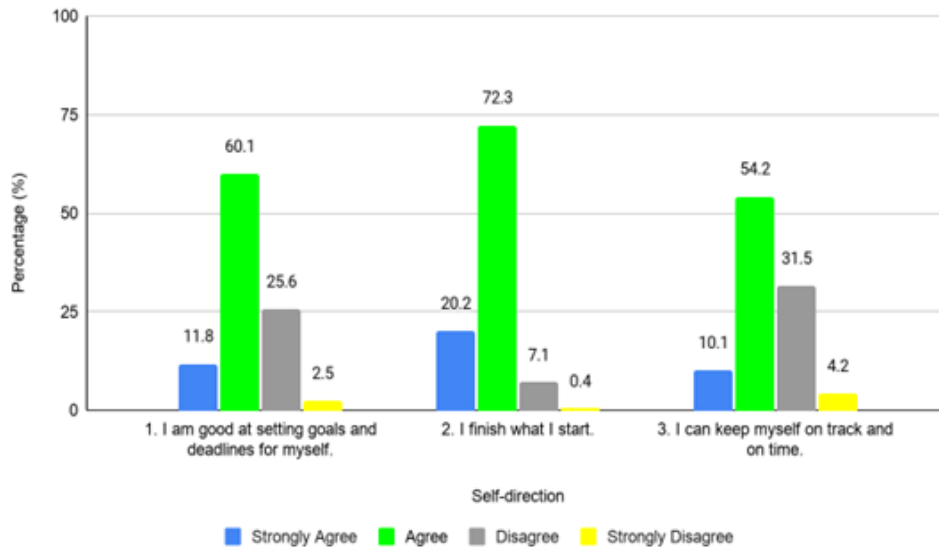
Self-Direction

Self-direction suggests independence but is further defined as the "capabilities of people to direct their own lives based on their understanding of themselves, others, and the world, and their skill in managing their own learning, motivation, and behavior". One subconstruct of self-direction is self-directed learning (SDL) which pertains to the "students' perceptions of their independent learning, their sense of responsibility in their learning and their initiative in learning" (Geng et al., 2019). When it comes to the learner's self-direction, the majority (71.9%) agreed that they are good at setting goals and deadlines for themselves (Figure 5). The majority (92.5%), likewise, said that they finished what they started. Lastly, more than half (64.3%) agreed that they could keep themselves on track

and on time. The result comprehensively implied that the majority of the students surveyed could undergo self-directed learning and could be considered self-sufficient when it comes to thinking and behavior.

Figure 5

Percentage distribution of the level of agreement of the respondents on their self-direction

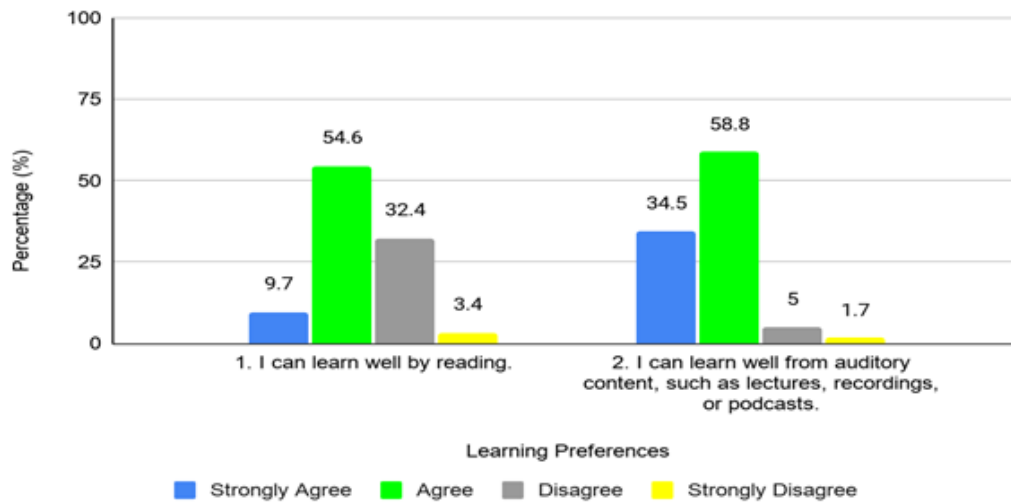


Learning Preferences

The learning preferences of the respondents were also assessed. Almost 65% of the respondents agreed that they could learn well by reading (Figure 6). In the same manner, 93.3% of the respondents claimed that they could learn well from auditory content such as lectures, recordings, or podcasts. The present study found that students surveyed generally have their own varied learning preferences. As noted in the study of Khan et al. (2019), college students are mainly inclined toward visual learning as their learning preference. Auditory comes only second. The last would be the combination of both visual and auditory. Even though more than half of the respondents (52.6%) said that they could learn well on their own and 60.9% of them relatively concurred in their ability to work well in a virtual classroom within a learning management system (such as Moodle in the ILC e-learning Based Instruction Site), it is important to first consider their learning preferences and eventually, their learning styles. Mkonto (2015) emphasized that students being aware of their learning preferences helps them develop learning potentials which enables them to decide on the most appropriate learning styles. Correspondingly, identifying the learning styles of students is especially crucial for instructors in determining the most suitable teaching styles in a remote learning set-up.

Figure 6

Percentage distribution of the level of agreement of the respondents on their learning preferences



Study Habits

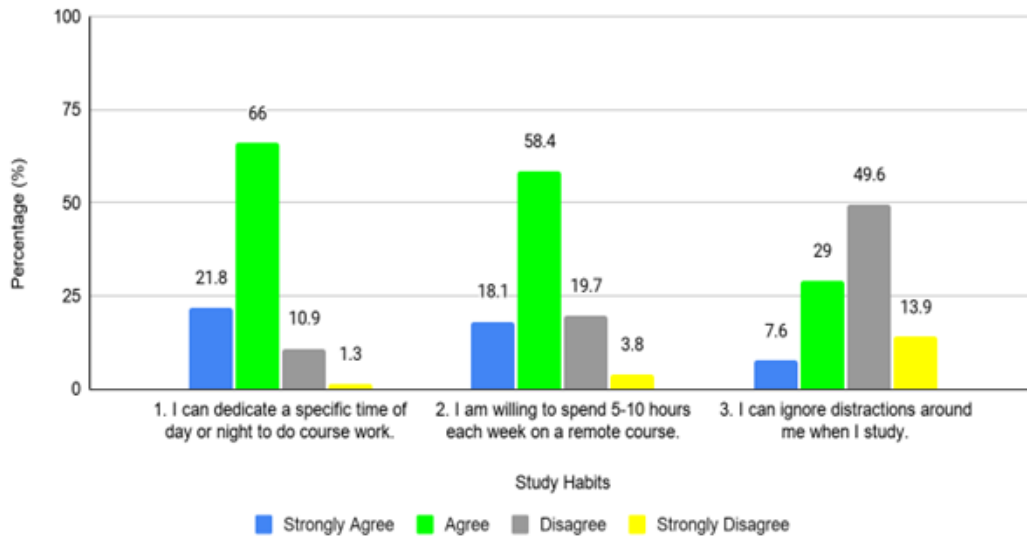
Gaining an insight into the student's study habits, the results of the study are presented in Figure 7. As one of the significant elements in assessing a student's readiness for distance learning, study habits include various activities such as time management. The results revealed that the majority of respondents (87.8%) asserted that they could dedicate a specific time of day or night to do their coursework and more than half (76.5%) also agreed that they are willing to spend 5-10 hours each week on a remote course. Study habits do not only refer to the student's manner of studying but are also connected to the student's learning preferences, learning styles, and learning strategies (Çakıroğlu, 2014). Considering the first two study habits mentioned in this study, the majority of the students surveyed could be seen to have positive study habits. As Çakıroğlu (2014) further stated, positive study habits have a significant relationship with average scores.

However, there are also negative study habits. Evidently, more than half of the respondents (63.5%) expressed that they could not ignore distractions around them when they study. Though this may not appear as an intentional bad study habit, this finding confirms the views of Muilenburg and Berge (2005) and Gillis and Krull (2020) who cited distractions as one of the barriers to student's remote learning. Distractions can come in different forms such as technology-based (gadgets and social media), work and family commitments (Winter et al., 2010), external (unexpected noise), and others.

In addition, Somuah et al. (2014) brought up in their study that distant education learners manifest other study habits such as "reading while lying in bed, not being able to study for a minimum of three hours in a day, do not look for additional materials from the internet as well as reading over their notes before their next face-to-face meetings".

Figure 7

Percentage distribution of the level of agreement of the respondents on their study habits

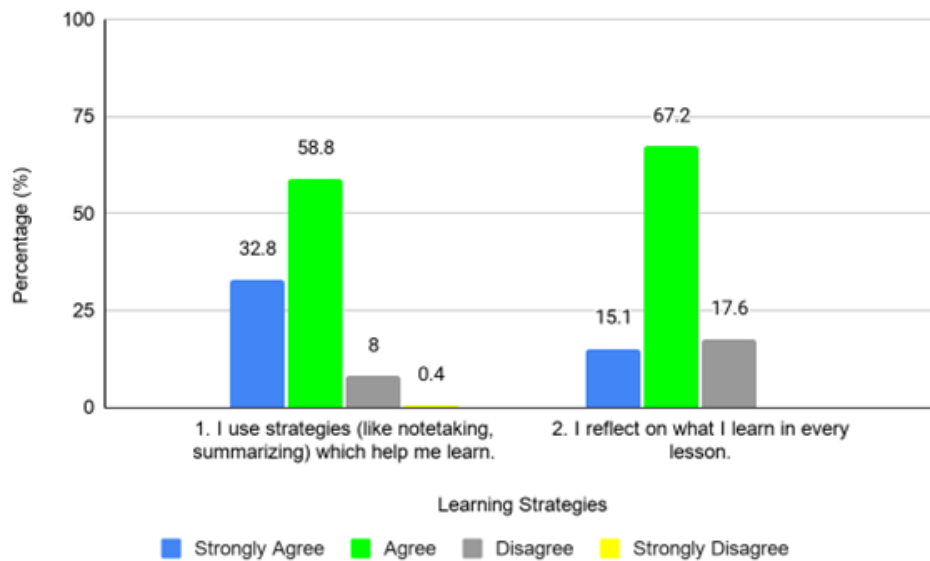


Learning Strategies

With regard to the learning strategies, A large majority (91.6%) of the respondents use strategies (e.g. note taking and summarizing) to help them learn (Figure 8). Similarly, the majority of them (82.3%) agreed that they reflect on what they learn in every lesson. As discussed previously, learning strategies are closely related to learning preferences and study habits (Çakıroğlu, 2014). Proctor et al. (2006) even mentioned that utilizing suitable note-taking strategies as well as carefully selecting a convenient environment for studying are considered activities relating to study habits. As evident from the results, it can be said that students who participated in the study employed adequate learning strategies.

Figure 8

Percentage distribution of the level of agreement of the respondents on their learning strategies

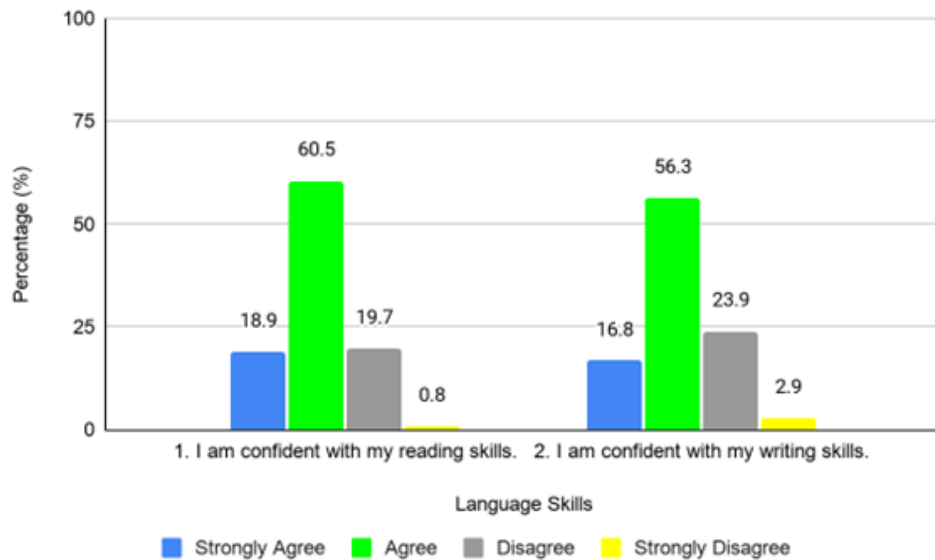


Language Skills

Language skills were assessed by examining the respondents' reading and writing skills. On the aspect of reading skills, more than half (79.4%) articulated a good confidence level regarding their reading skills (Figure 9). In the same fashion, 73.1% of the respondents expressed a good confidence level in terms of their writing abilities. Since all the respondents were either currently enrolled in or have completed tertiary-level education, it can be assumed that their language skills are satisfactory. However, some students may still encounter problems that challenge their language skills. As noted in the study of Milad (2017), some of the bottlenecks students face include the low proficiency level due to limited English language skills and restricted learning potential, which hinder their ability to develop reading and writing skills. Another reason contributing to the subpar output of students is time and task constraints from other courses that restrict the students' time to gather pertinent data for their essays. It is worth noting that these problems were encountered on a traditional set-up, and the situation could probably be different in a remote learning arrangement.

Figure 9

Percentage distribution of the level of agreement of the respondents on their learning strategies

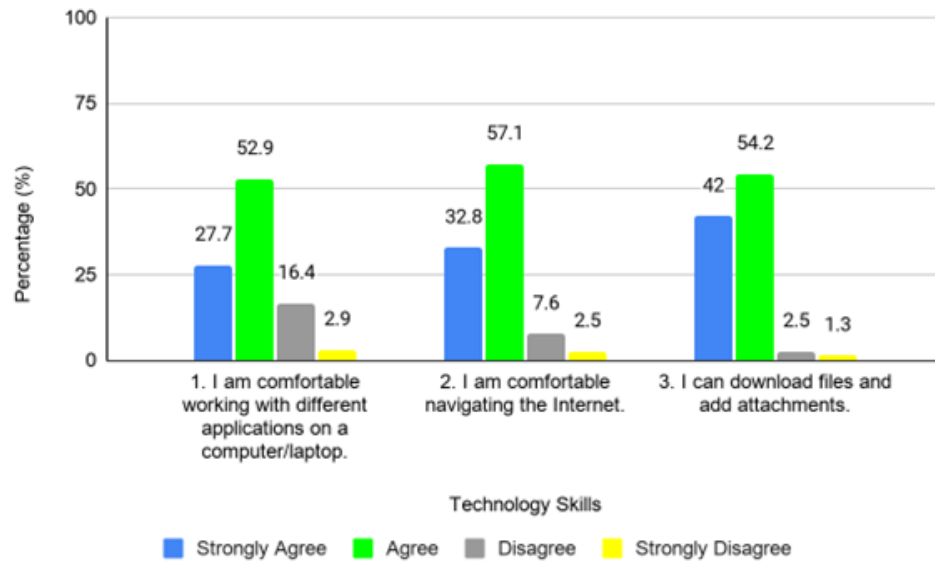


Technology Skills

As for the technology skills, Figure 10 shows that the majority of respondents (80.6%) expressed that they are comfortable working with different applications on a computer/laptop. Also, 89.9% of the respondents conveyed that they are comfortable navigating the internet. One distinct characteristic of the current learners, which are called the ilearners or the Generation Z learners, is their affinity and knowledge about a fast-evolving technology. This finding is also expected since these Gen Z representatives who are also a product of the K-12 program have never seen the world devoid of the internet and thus, have an affinity for texting and messaging on mobile apps or online platforms, sometimes even over in-person, face-to-face communication. According to the Generation Z facts sheet, 44% of teens use computers to do their homework. Furthermore, 48% of teens watch how-to videos that are related to school (Robertson, 2013). Fortunately, only a few respondents (3.8%) differed when it came to downloading files and adding attachments. Although it can be said that students surveyed in this study generally express confidence when it comes to using internet-related technologies, there are still those few who were not.

Figure 10

Percentage distribution of the level of agreement of the respondents on their technology skills

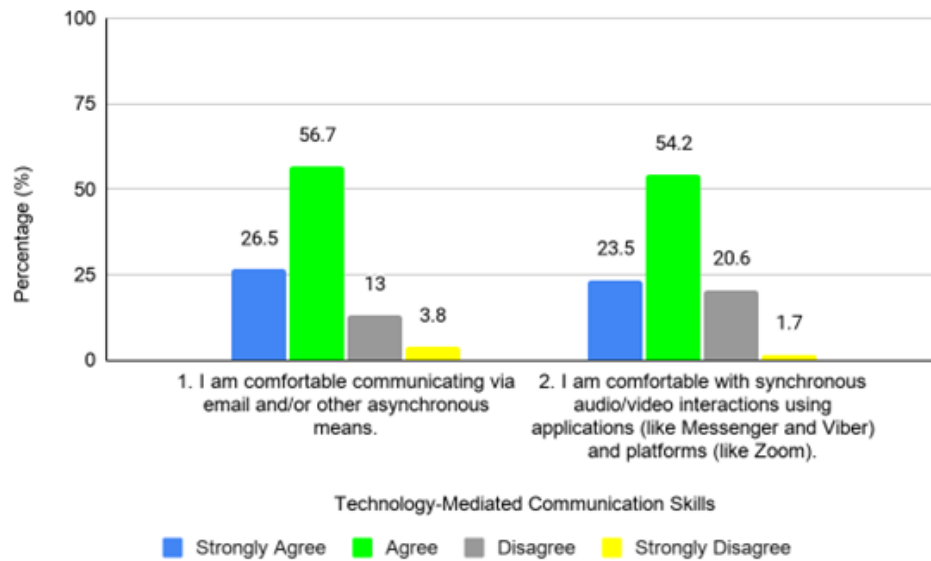


Technology-Mediated Communication Skills

In relation to the technology-mediated communication proficiency of the respondents, the majority (83.2%) said that they are comfortable communicating via email and/or other asynchronous means (Figure 11). Similarly, more than half (77.7%) indicated that they are comfortable with synchronous audio/video interactions using applications (e.g. Messenger and Viber) and platforms (e.g. Zoom). Despite these satisfactory results, just like with the technology-skills results, there were still a few students who were not comfortable in using the technology. These findings are in line with that of Owens et al. (2009). In their study which also included undergraduate and post-graduate students, students with limited knowledge of communication technologies were found to be the most dissatisfied. Nearly all students preferred printed materials as back-up. This may be because of the delays they encounter in getting connected due to technological difficulties.

Figure 11

Percentage distribution of the level of agreement of the respondents on their technology-mediated communication skills

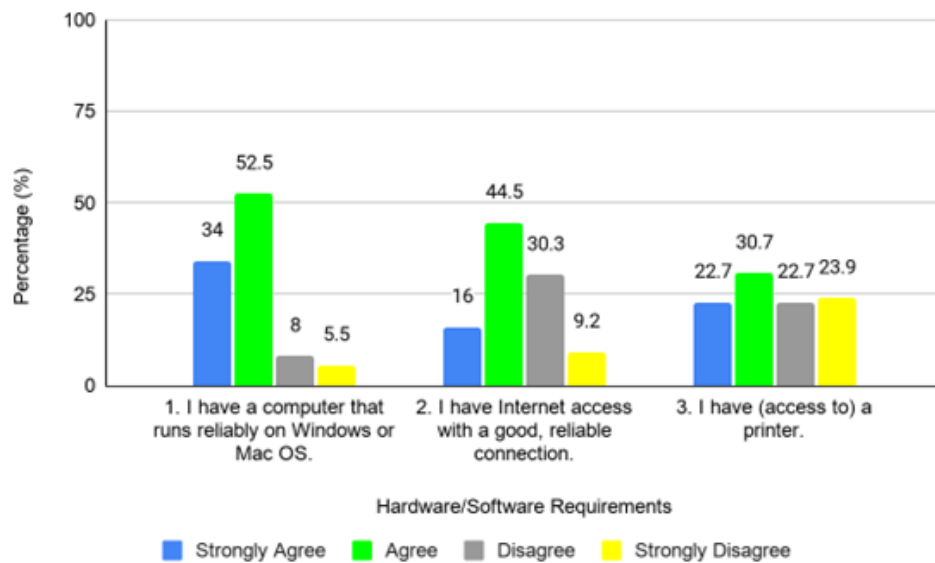


Hardware/Software Requirements

As seen in Figure 12, when it comes to the required hardware/software, most respondents (86.5%) claimed that they have a reliable computer that runs either on Windows or Mac OS. However, only 60.5% of the respondents indicated having a good, and reliable connection. This finding aligns with the study's results, revealing that many students experience issues with unstable internet access. Gillis and Krull (2020) noted that internet and technology barriers are the common struggles of students. With the demand of remote learning comes an unspeakable pressure on financial stability, particularly for students from low-income families. Additionally, the financial strain associated with remote learning, especially for students from low-income families, cannot be overlooked. Evidently, this study found that only 53.4% of the respondents have (access to) a printer, further indicating that some students struggle from accessing important technologies. This difficulty was exacerbated during the pandemic, as many internet shops and printing services are not able to operate.

Figure 12

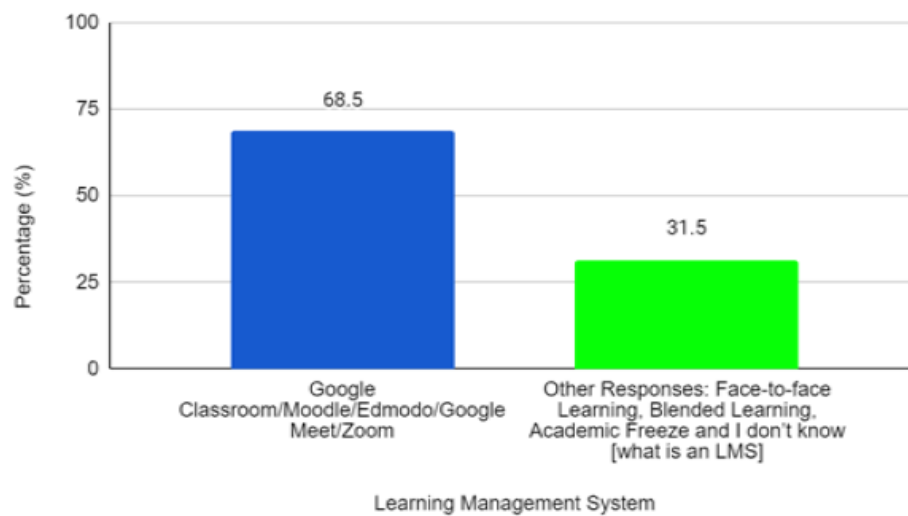
Percentage distribution of the level of agreement of respondents on hardware and software requirements



Preferred Learning Management System (LMS)

When the respondents were asked about their preferred LMS, more than half (68.5%) mentioned learning application software such as Google Classroom, Moodle, and Edmodo. Some also indicated video conferencing platforms such as Google Meet and Zoom. Meanwhile, 31.5% of the respondents gave other responses such as face-to-face as well as blended learning several times. Academic freeze was also included as a response. Moreover, quite a few said that they do not know what an LMS is while others answered, 'not applicable'. Based on OVPAA Memorandum No. 2022-88, there are three models of blended learning which are Model 1: Blended Online Learning or Remote Learning Mode; Model 2: Blended Block Learning and Model 3: Classic Blended Learning which make use of an LMS in the delivery of instruction.

Figure 13
Preferred Learning Management System (LMS)



Challenges encountered by the Students in Remote Learning

The students were asked about the biggest challenges they encountered during remote learning, and a great deal of concerns emerged. Several recurring issues were highlighted, with inaccessible or unstable internet connection as the most prominent. This was particularly problematic for students in areas with limited or no internet access, or where power outages were frequent. Following other similar studies, another struggle mentioned which affects students in focusing on their online lessons is technological problems (Gillis & Krull, 2020; Owens et al., 2009). As also noted in the study of Geng et al. (2019), the technological readiness of students has a considerable impact on their learning effectiveness. Moreover, technological struggle is seemingly an overarching term which boils down to various specific concerns that were also brought up by the students. A few students mentioned that they were lacking in terms of technical skills as well as resources. Gadgets and internet data were particularly cited as barriers which could be attributed to their financial instabilities. Accordingly, the financial costs of studying put a substantial strain on students' psychological well-being, leading to experience an increased anxiety (Gillis & Krull, 2020) and stress. Adding to these are the numerous distractions such as noise from the neighbors, social media/gadgets, and personal and household responsibilities/problems. These findings are further supported by that of Winter et al. (2010) who concluded that personal technologies such as mobile phones and non-learning applications cause unnecessary disturbances to students, negatively impacting students' academic performance. Besides lack of interaction or reduced communication with instructors and fellow students and preference for blended learning, other definite bottlenecks identified in the study include issues with time management (e.g. failing to meet deadlines), instructor's capabilities in handling remote learning courses, heavy workload and academic requirements, inadequate library and journal resources, and occurrence of natural calamities such as typhoons.

Assistance needed by the Students for Remote Learning

Consequently, the study noted several areas where students expressed the need for support. A primary concern was financial assistance. Being in a premier university does not necessarily mean that students are free from financial struggles. The ongoing economic crisis and widespread unemployment have made it even more difficult for students, particularly those from low-income families, to afford essential resources. Accessing stable internet connections and reliable devices, such as smartphones and laptops, became major hurdles to their participation in remote learning. Moreover, students mentioned the need for psychosocial support. Consistent with the challenges previously presented in this study, students experienced anxiety and stress throughout their remote learning experience. One student even commented, "Moral support/encouragement from professors would be appreciated". This statement only proves that instructors play a crucial role not just in student's learning but also in their well-being, especially during uncertain times. Beyond these broader needs, students offered specific suggestions for improving their remote learning experience. These responses include flexibility on deadlines, academic ease, more asynchronous class, and less academic requirements.

In response to these, the University through its Office of Scholarships and Grants (OSG) under the Office of the Vice-Chancellor for Students Affairs (OVCSA) implemented various assistance programs under the Grants-In-Aid Program to bonafide and currently enrolled students. These include the Student Learning Assistance System (SLAS) Online and the Universal Access to Quality Tertiary Education (Free Tuition) Act.

With the Grants-in-Aid Programs, "students who are no longer covered by free tuition fees, in some cases, acquire additional financial assistance through monthly stipends. Starting academic year 2020-2021, the assistance has extended to providing students with learning assistance in support of the remote learning arrangement of the university as classes resumed during the ongoing COVID-19 pandemic. Students from vulnerable households are able to apply for assistance in the form of internet connectivity subsidies and gadgets", (Office of Student Financial Assistance, Student Learning Assistance System, University of the Philippines).

Furthermore, in support of remote learning, the university is providing academic support to college students who would apply for learning assistance through the SLAS. Students from low-income households shall receive monthly internet connection to support academic instruction and learning activities this academic year. Based on the student's updated application information, students from the most vulnerable families shall be offered gadgets on top of their internet connectivity subsidy. To expand the support to financially challenged students, the University launched a program to "mobilize the private sector to donate cash and in-kind gadgets that will be made available to those who applied for learning assistance", (Office of Student Financial Assistance, Student Learning Assistance System, University of the Philippines).

Conclusion

The study aimed to determine the remote learning readiness of students at the Philippine State University. The findings revealed that students generally recognize that learning is one's own responsibility, and that remote learning is not in any way easier than the face-to-face learning modality. Despite facing several challenges, they also showed confidence to undergo self-directed learning. However, the study also identified several barriers that prevent students from being fully prepared for remote learning. These barriers include technological problems, distractions, psychological burdens, financial struggles, reduced social interactions, and the challenge of balancing personal responsibilities. Subsequently, the study concluded that several students require financial/technological assistance and psychosocial support. In support of remote learning, the University provided learning assistance through the Grants-in-Aid program. It includes financial support for internet connectivity subsidies and gadgets to students from the most vulnerable families.

For future research, it would be valuable to explore the perspectives of instructors and faculty members. This would help develop more effective teaching strategies and support mechanisms aimed at enhancing students' readiness for remote learning.

Recommendations

Based on the findings of this study, the following recommendations are forwarded:

1. In relation to the various challenges to remote learning, it is suggested that a regular assessment of the student's as well as the faculty's situation be done to create opportunities for possible interventions (i.e. improvement of learning/teaching methods, psychosocial support, financial/gadget assistance, technical support, among others).
2. Aside from the provision of financial assistance programs by the Office of Scholarships and Grants under the Office of the Vice-Chancellor for Student Affairs (OVCSA), the Office of Counseling and Guidance also under the OVCSA should continue to be proactive in providing guidance and counselling services (e.g. psychosocial and emotional support) as the cases of mental health issues on students have become more prevalent due to the challenges of remote learning. Support in the implementation of their programs and activities should continue to be provided, whether in the form of financial or human resources.
3. The Center for the Advancement of Teaching and Learning (CATL), which serves as a hub for improving learner-centered higher education academic practice in the University should continue providing technical assistance both to faculty members and students on the management of learning management systems particularly on Moodle, specifically, in the creation of an account and access to e-courses in the university. In the same manner, CATL should also continue providing regular online training workshops to capacitate the faculty members and other teaching personnel on e-learning practices, support innovative teaching

and learning strategies, and develop the digital skills and capabilities of participants in interactive teaching and learning. Additionally, access to interactive learning materials on various topics must be available online as supplementary learning materials that will help enhance student's learning. Support for the development and production of interactive learning materials must be also sustained and promoted actively to faculty members. Having adequately prepared faculty would redound to more efficient delivery of courses through remote learning.

4. The various student support services in the form of webinars and short talks, among others, provided by the Learning Resource Center (LRC) have been beneficial not only to the learning needs of the students but also to its various stakeholders. It is hoped that they will continue providing these services as a support mechanism in addressing the academic support requirements of the students and the professional needs of the faculty and other stakeholders.
5. As for the study itself, the identified barriers to remote learning were not further explored since the study only utilized a 4-point Likert scale. It would have been advantageous if each statement was followed by probing questions to obtain in-depth response from the students. Qualitative approaches such as online interviews or online focus group discussions could complement the quantitative survey conducted. This is an area that needs further exploration in similar studies in the future. A follow-up study by the authors is now under the conceptualization stage.
6. Future research may explore other online learning readiness measurement models. For instance, McVay Lynch (2000, 2001a, 2003) developed a 13-item instrument for measuring readiness for online learning. The instrument identified two factors, students' behavior and attitudes, as the potential predictors to online learner readiness.

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