Readiness on Online Learning among Pharmacy Students

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ABSTRACT

Online learning is a form of distance learning where education takes place over the Internet, accessed through cellular phones, tablets, laptops, and personal computers. Many academic institutions have widely used it during the COVID-19 pandemic to maintain instructions to students. This study aimed to assess the level of readiness of the students of LDCU College of Pharmacy in Online Learning. The study employed a descriptive quantitative research method to gather and analyze the data to describe the level of preparedness in the new learning system among the students. A formulated survey questionnaire focusing on three (3) domains, specifically the technical, social, and learning factors, was used to collect data. Most of the respondents were found to be competent in technical factors such basic ICT and network. Social factors such as social support from the teachers, parents, friends, and the institution were slightly competent. Learners' attitudes reflect as satisfactory for online learning readiness. Technical and learner's factors have a strong relationship with readiness in online learning and social factors have a very strong relationship with readiness in online learning. The pharmacy students of LDCU are competent in the aspect of readiness in online learning evaluated through the three (3) domains: technical, social, and learner factors.

Keywords: Online learning, readiness, preparedness, pharmacy

INTRODUCTION

Online learning is a form of distance learning where education takes place over the Internet, accessed through cellular phones, tablets, laptops, and personal computers. Many academic institutions have widely used it during the COVID-19 pandemic to maintain instructions to students. Due to the pandemic, there has been a massive, disruptive shift from the existing educational system, from the traditional face-to-face live lectures to the online education system.

The pandemic's effects have brought an immediate shift from the usual face-to-face learning to more blended and flexible instructional learning referred to as "e-learning" (Suryaman et al., 2020). According to Hogan (2020), in thousands of schools, including foreign and more developed countries such as the United States of America, online learning or e-learning is already deemed a norm for them. It is an option for students in developed countries. With this being an advantage, America is readier than the Philippines in accepting students for online classes during the pandemic. However, in the Philippines' educational institutions, online

learning was not implemented and integrated into students' life until the second half of 2020 by the Department of Education (DepEd) and Commission of Higher Education (CHED).

There are plenty of issues regarding online learning for the students and faculty. An online course requires comprehensive lesson plans to design suitable study materials. Specific challenges of online education include lack of online teaching abilities in educators, preparation of online lesson plans as it is very time-consuming, insufficiency of appropriate support from the technical teams, and traffic overload in online educational platforms. Students face hardships due to their lack of proper learning attitude, lack of suitable materials for learning, involvement in classroom learning, incapability of self-discipline, and the inadequate learning environment at some of their homes during self-isolation (Soni, 2020). The DepEd and CHED have delayed the school year's reopening to prepare for the changes implemented to deliver quality education through online means. Nevertheless, conducting this study will pave the way smoothly for online learning for the semesters to come. In this regard, the researchers are conducting a study to determine the pharmacy faculty and students' online teaching and learning readiness of Liceo de Cagayan University.

FRAMEWORK

The study is based on the Social Learning Theory model developed by Albert Bandura (1977). This model showcases the idea of reciprocal determinism, where the environment and behavior can cause each other.
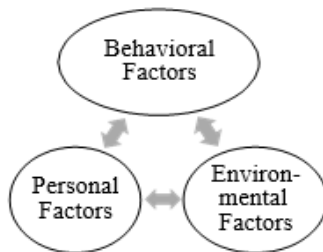

Figure 1. Bandura's Social Learning Theory Model

The theory assumes that the environment affects an individual's behavior and that behavior can also affect the environment, influencing personal factors such as cognition. In an online learning environment, the Social Learning Theory is very much applicable as the sudden change of the learning environment will affect a person's behavioral and personal factors such as attention, cognition, and even motivation.

OBJECTIVES OF THE STUDY

This study's main objective is to assess the level of readiness of the students of the Liceo de Cagayan University College of Pharmacy in Online Learning. Specifically, it sought to: 1) Determine the level of readiness of the students of the Liceo de Cagayan University College of Pharmacy in Online Learning and 2) Determine how the technical, social, and learner factors influence the level of readiness of the students of Liceo de Cagayan University College of Pharmacy in Online Learning.

METHODS

The study employed a descriptive quantitative research method to gather, collect, and analyze the data. The study was conducted at Liceo de Cagayan University. The data was gathered from a target population of pharmacy students of the university. The participants' sample size per year level was computed using the Stratified Random Sampling Method; an approach ideally applied to a research study if the characteristic of participants is distributed homogeneously across the population. The research instrument used was derived from E-learning Readiness Assessment Tool for Philippine Higher Education Institutions made by Jo Doculan (2016). It is three-part questionnaire, divided by the factors affecting online learning, Technical, Social, and Learner Factors. Further distribution of the questionnaires was done through online means in Google forms.

To interpret the data effectively, the researchers employed the subsequent descriptive statistical treatment: frequency count, percentage distribution, mean for central tendency, standard deviation, and ordered logistic regression of variables. Frequency distribution, percentage, the mean, and standard deviation was used to organize the data. The rate was employed to determine the frequency counts and percentage distribution of the online learning variables of the respondents.

RESULTS AND DISCUSSION

Table 1

Descriptive statistics of participant's level of Online Learning on Technical factors | (N=140)

Indicators	Mean	SD	Interpretation
1. I have access to a computer and internet connection at home all the time	3.76	.942	Ready but needs a few improvements
2. I have access to a computer installed with search engines (ex. Google, Ask) and internet browsers (Ex. IE, Firefox, Google Chrome)	4.11	.965	Ready but needs a few improvements
3. I know how to save/open documents to/from	4.44	.702	Ready to go-ahead
4. I know the essential functions of computer hardware components (CPU and monitor), including its peripherals like the printer, speaker, and mouse.	4.06	.841	Ready but needs a few improvements
5. I know how to surf the internet and navigate the web	4.32	.712	Ready to go-ahead
6. I can send an email with file attachments	4.54	.650	Ready to go-ahead
7. I know how to access an online library and other resource databases	3.61	.911	Ready but needs a few improvements
8. I know what PDF/DOCUMENT/PPT files are, and I can download and view them	4.48	.662	Ready to go-ahead
9. I know what PDF files are, and I can download and view them	3.42	1.163	Ready but needs a few improvements
10. I have attended webinar/workshops on e-learning	4.69	.622	Ready to go-ahead
11. I have used a learning management system before	3.45	.939	Ready but needs a few improvements
Average Mean	**4.08**	**.546**	**Ready but needs a few improvements**

Table 1 presents the respondents' average regarding the technical factors of their readiness in online learning. Most of the respondents have attended webinars and workshops to be ready for e-learning, with the highest mean value of 4.69. They are ready as they are known how to send emails with attachments, familiar with various types of files and can download and view them, know how to save and open documents to/from, and can surf the internet and navigate the web – proven by

mean values of 4.54, 4.48, 4.44, and 4.32 respectively. With an average mean of 4.08, the pharmacy students are ready for online learning concerning the technical factors, given that few improvements will occur. Such improvements are needed in several sub-variables. Such as access to a computer installed with search engines and internet browsers (4.11), knowledge of essential computer hardware functions and its peripherals (4.06), access to a computer and internet connection at home at all times (3.76), knowledge on accessing online libraries and other resource databases (3.61), experience on using learning management systems (3.45), and knowledge on what PDF files are and how to download and view them (3.42).

Table 2

Descriptive statistics of participant's level of Online Learning on Social Factors | (N=140)

	Indicators	Mean	SD	Interpretation
1.	My parents encourage me to use the internet for learning purposes.	3.25	.806	Ready to go-ahead
2.	My parents encourage me to use electronic devices for learning purposes.	3.16	.783	Ready to go-ahead
3.	My teachers encourage me to use the internet for learning purposes.	3.46	.616	Ready to go-ahead
4.	My friends encourage me to learn with the use of the internet and electronic materials.	3.23	.723	Ready to go-ahead
5.	The school provides us e-learning materials and opportunities to learn online.	3.19	.716	Ready to go-ahead
	Average Mean	**3.26**	**.503**	**Ready to go-ahead**

Table 2 presents the respondents' means of responses regarding social factors for readiness in online learning. The table above shows that the participants' teachers encourage them to use the internet for learning purposes, with the highest mean of 3.46. The students believe that teachers are the ones that are highly encouraging them by showing and demonstrating social support with the use of the internet as a learning platform. The second highest mean of 3.25 is from the students' parents encouraging them to use the internet for learning purposes. Social support from friends in using the internet and electronic materials in learning follows a mean of 3.23. It follows with social support from the institution, where they provide the

students with e- learning materials and opportunities to learn online with a mean of 3.19. While the lowest mean of 3.16 falls out to their parents encouraging them to use electronic devices for learning purposes. From the data obtained above, the average mean of all social factors in the participants' level of readiness in online learning is 3.26, which indicated that they are ready to go ahead with e- learning. Subsequently, the results attest that social factors such as social support from the teachers, parents, friends, and the institution significantly affect the students' readiness for online learning.

Table 3

Descriptive statistics of participant's level of Online Learning on Attitudes towards successful online learning | (N=140)

	Indicators	Mean	SD	Interpretation
1.	I prefer to study or work alone.	3.27	.767	Ready to go-ahead
2.	I can refrain from distractions and stay on task while studying.	2.69	.709	Ready but needs a few improvements
3.	I do not need a direct lecture to understand learning materials.	1.95	.799	Not ready but needs some work
4.	As a learner, I am highly confident	2.28	.730	Ready but needs a few improvements
5.	I am determined to stick to my studies despite challenging situations.	2.94	.766	Ready but needs a few improvements
6.	I can communicate effectively with others using online technologies.	2.96	.781	Ready but needs a few improvements
7.	Taking responsibility for staying in contact with my instructor would be easy for me.	2.79	.800	Ready but needs a few improvements
8.	I am highly motivated and enthusiastic about taking an online course.	2.41	.839	Least Ready but needs a few improvements
9.	I would be able to remain motivated even though the instructor is not online at all times.	2.52	.809	Ready but needs a few improvements
10.	I would be able to complete my work even when there are in my home (e.g., Television, children, and such).	2.71	.869	Ready but needs a few improvements
11.	I would be able to complete my work even when there are online distractions (eg. Friends sending emails, websites to search	2.80	.806	Ready but needs a few improvements

Table 3 Continued

Indicators	Mean	SD	Interpretation
12. Considering my schedule, I can spend significant time and energy engaging in online learning class	2.88	.734	Ready but needs a few improvements
13. I can sacrifice personal time to complete assignments and readings	3.17	.739	Ready to go-ahead
14. Online collaboration improves my written communication and analytical thinking skills	2.66	.706	Ready but needs a few improvements
15. Learning would be more effective with the use of online learning materials	2.70	.811	Ready but needs a few improvements
16. Learning online reduces the time I spend on unproductive activities	2.59	.748	Ready but needs a few improvements
Average Mean	**2.71**	**.430**	**Ready but needs a few improvements**

Table 3 presents the participants' level of Attitude on online learning. Among the 16 indicators, the highest mean of 3.27 is on "I prefer to study or work alone," while the lowest mean of 1.95 is "I do not need a direct lecture to understand learning materials." In these results, it can be seen that out of 16 indicators. Only three can be seen to have minor satisfactory results in readiness. Overall, the results state that students are approaching readiness in online learning. Many students prefer to study or work alone and have the willpower to ignore distractions around their environment to focus on online classes. Students also have the initiative to communicate with a teacher if they have questions or concerns. However, even if the students have the motivation and focus on online classes, many still think they need a direct lecture to understand the topics.

Nevertheless, they preferred face-to-face learning for communication purposes in which a shared understanding has to be derived or in which interpersonal relations are to be established. A significant result concerns students' perception of their learning achievements: When conceptual knowledge in the subject matter or skills in applying one's knowledge are to be acquired, students prefer face-to-face learning. However, when skills in self-regulated learning are to be acquired, students advocate online learning.

Table 4

Descriptive statistics of participant's level on Readiness in the Online Learning | (N=140)

Indicators	Mean	SD	Interpretation
1. E-learning improves my learning process and experience.	2.96	.781	Ready but needs a few improvements
2. I am willing to devote more time to an online class than an onsite class	3.19	.716	Ready to go-ahead
3. I am highly motivated and enthusiastic during an online class.	2.79	.800	Ready but needs a few improvements
4. My interest in learning online is motivated by the opportunity to have more free time for other activities.	3.25	.806	Ready to go-ahead
5. My interest in online learning is motivated by the flexibility it will decide when I do my work.	2.66	.706	Ready but needs a few improvements
6. My interest to teach online is motivated by the opportunity for me to pursue personal interests that are not school-related	3.16	.783	Ready to go-ahead
7. I can dedicate at least 4-6 hours a week (anytime during the day or night) to participate in the online class	3.23	.723	Ready to go-ahead
8. Learning is more effective and fun with the use of online learning materials.	3.63	.627	Ready to go-ahead
9. I feel comfortable having the class online.	3.52	.704	Ready to go-ahead
10. I can often complete complex tasks independently, even if others do not provide support and encouragement.	3.23	.947	Ready to go-ahead
Average Mean	**3.16**	**.408**	**Ready to go-ahead**

Table 4 presents the participants' level of readiness in online learning. Among the ten indicators, the highest mean of 3.63 is on "Learning is more effective and fun with the use of online learning materials." On the other hand, the lowest mean of 2.66 is on "My interest in online learning is motivated by the flexibility it will give me to decide when I do my work." It shows that most of the points showed that students are willing to devote their time to an online class than an onsite class. They are much more comfortable having the class online, as well as it is easier for them to complete complex tasks on their own, even if others do not provide any support and encouragement. Also, they are more interested to learn online by the opportunities to have more free time for other activities and to pursue personal interests that are not school-related. These results convey that students are highly motivated and enthusiastic during an online class.

Table 5

The Relationship Between Readiness of Pharmacy Students in Online Learning, Technical Factors, Social Factors, and Learner's Factors | N = 140

Variable	Correlation Coefficient	P-value	Interpretation
Technical Factors	.593**	.000	Significant
Social Factors	.822**	.000	Significant
Learners' Factors	.681**	.000	Significant

**. Correlation is significant at the 0.01 level (2-tailed).
Readiness in Online Learning □ Technical Factors – **Strong Relationship** Readiness in Online Learning □ Social Factors – **Very Strong Relationship** Readiness in Online Learning □ Learners' Factors – **Strong Relationship**

The data shown in Table 5 conveys that technical factors (r = .593; p = .000) and learner's factors (r = .681; p = .000) have a strong relationship with readiness in online learning. On the other hand, social factors (r = .822; p = .000) have a solid relationship with readiness in online learning. The results signify that the relationship between the readiness of pharmacy students in online learning, technical factors, social factors, and learner's factors are significant.

CONCLUSIONS

It is difficult for the students to fully adapt to the new normal in the academe, considering various points to consider to know their readiness in online learning. The preparedness of pharmacy students in online learning exhibited a significant relationship with the technical factors, social factors, and the learner's attitude factors.

This study aimed to identify the readiness of the pharmacy students in Online Learning by identifying their willingness through the independent variables. These technical, social, and learner factors may affect their enthusiasm in online learning. The researchers concluded that the readiness of pharmacy students in online learning exhibited a significant relationship with the technical, social, and learner's attitude factors, as the correlation coefficient between each element and the pharmacy students' readiness as the factors yielded greater than 0.01 correlation coefficient for two-tailed tests.

The average mean of social factors on online learning readiness yielded was 3.26, indicating that the respondents are ready in this domain. Technical aspects yielded an average mean of 4.08, while learners' attitudes yielded an average mean

of 2.71. The respondents were prepared for online learning in these two domains, given that the organizations involved will make few improvements.

Despite the students' readiness in the Online Learning Environment, there are still things to address to make a smooth journey in Online Learning. The Philippines does not have the best faculties or resources given to each school, and these schools are left to find their solutions to accommodate their students and try to provide the best education they can offer a new platform. The researchers conducted this study to help the students have a smooth educational journey in an Online Learning Environment. They hope that, at the very least, the higher authorities can have an idea of how to go about the ways in giving the students the best education they have been paying.

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