

## Online Delivery of Basic Nursing Skills in Related Learning Experience (RLE)

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**Abstract** – A drastic change happened wherein all nursing colleges are put into online learning. Demonstrations of nursing procedures were done virtually as well as return demonstrations. This study aims to evaluate the online delivery of basic nursing skills in RLE. Specifically, to determine the effectiveness of online demonstrations and return demonstrations of basic nursing skills; determine factors that hinder effectiveness of online delivery; identify strategies that facilitate the effective online delivery of basic nursing skills; assess the relationship between these variables; and finally propose a plan of action to enhance the effectiveness of online delivery of basic nursing skills in RLE. Quantitative-descriptive non-experimental research design was utilized to evaluate the online delivery of basic nursing skills in RLE. A questionnaire was used to gather data from one hundred percent of the total population of second- and third-year nursing students of LPU-Batangas. The data were tallied, analyzed, and interpreted with the use of weighted mean. Respondents agreed that all the indicators provided by the researchers are effective while poor internet connection ranks as the greatest factor that causes their difficulties. Whereas, use of instructional videos/ video lectures got the highest rank in the proposed strategies that facilitate the delivery of online learning environment. Thus, the researchers concluded that all the current practices of the college are effective and that strong connection between students and clinical instructors is essential. Finally, the researchers formulated a plan of action to enhance the effectiveness of online delivery of basic nursing skills in RLE.

**Keywords** – Online delivery, basic nursing skills, related learning experience

### INTRODUCTION

Nurses' competence depends on the knowledge gained both in theoretical classroom discussions and on the skills learned in the practical training during Related Learning Experience (RLE) class and clinical duties. In the year 2020, a drastic change happened wherein all nursing colleges are put into online learning due to pandemic. Demonstrations of nursing procedures were done virtually as well as return demonstrations wherein resourcefulness, flexibility and creativity were exhibited by the student nurses in performing the basic nursing skills.

The COVID-19 pandemic is putting education systems all over the world to the test. 190 countries have experienced full or partial school closures as a result of the crisis, affecting over 1.7 billion students. With hundreds of millions of students forced to stay at home, policymakers are trying to ensure that classes are held and the most in need students are not left behind. When learners need to stay outside of classrooms,

technology is one of the most important resources for supporting remote learning [1].

In line with the timeliness of the problem and upon seeing the difficulties and struggles faced in the so called "new normal learning" by both student nurses and clinical instructors, the researchers have chosen to study the online delivery of basic nursing skills in Related Learning Experience (RLE). Online delivery is the means of teaching online and delivering knowledge through the use of technology in the absence of face-to-face classes. This includes utilizing LMS, video presentation, live demonstrations and video calls for the delivery and discussions of topics and basic nursing skills in second- and third-year courses with RLE namely Maternal and Child Health Nursing, Community Health Nursing, Care of Older Adult, Medical-Surgical Nursing, and Psychiatric Health Nursing.

The online education tools and software namely Microsoft Teams and Zoom became the online

classroom where the clinical instructors meet the nursing students to discuss and provide demonstration of basic nursing skills. Virtual meeting is the means of interaction between clinical instructors and nursing students. Clarification regarding basic nursing skills and rationalization takes place in the online platform of classroom setup.

Adjustments from traditional learning to online learning for both student nurses and clinical instructors was a great challenge to face. Several changes were made from time to time due to the external factors such as poor internet connections, power interruptions, and others, that highly affect the learning status of each student nurses.

This study could further enhance the learning system by determining the factors that hinder the effectiveness of online delivery of basic nursing skills in RLE and the preferred strategies of student nurses during online demonstrations and return demonstrations. This study would also evaluate the effectiveness of the current strategies and will propose new approaches that will help both student nurses and clinical instructors in coping up with the new normal setup.

#### **OBJECTIVES OF THE STUDY**

This study aims to evaluate the online delivery of basic nursing skills in Related Learning Experience (RLE). Specifically, to determine the effectiveness of online demonstrations and return demonstrations of basic nursing skills among student nurses; to determine factors that hinder the effectiveness of online delivery of basic nursing skills in RLE; to identify strategies that facilitate the effective online delivery of basic nursing skills in RLE; to assess the significance of the relationship between factors that hinder the effectiveness of online delivery of basic nursing skills in RLE, effectiveness of online demonstrations and return demonstrations of basic nursing skills among student nurses, and strategies that facilitate the delivery of online learning environment; and finally, to propose a plan of action to enhance the effectiveness of online delivery of basic nursing skills in RLE.

#### **MATERIALS AND METHODS**

The researchers employed quantitative methods to evaluate the online delivery of basic nursing skills in Related Learning Experience (RLE). Descriptive non-experimental research design was used in the study to examine, document, and describe the relationship among variables but does not involve manipulation to any variable in the data. This is an innovative tool that

will be used to determine the effectivity in online demonstration and return demonstration provided as the participants progress and act under normal and changing environment [2].

#### **Participants**

The researchers utilized student nurses from second year and third year level in LPU-B conducting an online learning class. One hundred percent (100 %) of the total population of enrolled second year and third year level during the second semester of the school year 2020-2021 participated in the study. Participants of the study were the combined second year level with 153 enrolled students and third year level with 101 enrolled students that sums up to 254 nursing students.

#### **Instrument**

A modified online questionnaire was used in this study to evaluate the online delivery of basic nursing skills in Related Learning Experience (RLE). The questionnaire was distributed to the participants to collect and assess data related with the objectives of the study. Upon construction of questionnaire, it was reviewed and approved by the research adviser and the dean of college. The questionnaire was divided into three parts:

Part I. Effectiveness of Online Demonstration and Return Demonstration of Basic Nursing Skills. The students evaluated the effectiveness of each approach related to RLE class based on their experiences. They marked items that are Highly effective (HE), Effective (E), Moderately effective (ME), or Ineffective (I).

Part II. Factors that Hinder the Effectiveness of Online Delivery of Basic Nursing Skills in Related Learning Experience (RLE). Students identified whether the following stated factors hinder the effectiveness of online delivery of basic nursing skills in RLE or not. It was dichotomous questions that asked for a Yes/No response. They also put their perceived factors based on their experiences.

Part III. Strategies that Facilitate the Delivery of Online Learning Environment. Students were given list of strategies that could facilitate the delivery of online learning environment. They evaluated different online learning strategies indicated and marked it if they are Strong Agree (SA), Agree (A), Moderately Agree (MA), or Disagree (D). They also put their recommended strategies at the latter part of the questionnaire.

Questionnaire was reviewed by the grammarian, then distributed to fifteen respondents for pilot testing. The data gathered were sent to the statistician for the

processing of reliability test. Upon validation regarding the results of reliability test, questionnaires were distributed to all the respondents needed.

### **Data Gathering Procedure**

For the completion of this study, objectives of the study were primarily identified. After identifying objectives of the study, review of related literature was thoroughly written. Series of verified and authorized journals and articles published on the web was systematically examined and organized in sequence with the objectives of the study. Method of data collection was identified in correlation with the research design of the study, considering its effectiveness and reliability results from the statistician. Following the pilot study investigation, the questionnaire was sent to the grammarian for enhancement. A concept of online survey questionnaire specifically Google Forms, was utilized prior to the data collection of the study.

The questionnaire in Google Forms was composed of series of closed-ended questions that was utilized to evaluate the online delivery of basic nursing skills in Related Learning Experience (RLE). The approved questionnaire was distributed through an online link using Facebook messenger platform to provide access for the participants of the study, which are the second-year and third-year student nurses of LPU-B. The data gathered from the participants and comprehensively interpreted by the statistician.

### **Data Analysis**

Each item that was answered by 254 nursing students on the modified questionnaire was tallied, analyzed, and interpreted using several statistical treatments. Frequency and percentage distribution were used to assess factors that hinders the effectiveness of online delivery of basic nursing skills in Related Learning Experience (RLE). Weighted means and ranking were used to determine the effectiveness of online demonstrations and return demonstrations of basic nursing skills among student nurses and identify strategies that facilitate the effective online delivery of basic nursing skills in RLE.

The result of Shapiro-Wilk Test revealed that p-values of four major variables are less than 0.05 which means that the data set is not normally distributed. Chi-square was used to test the significant relationship between the three variables. The following Likert Scale was used in assessing the variables: 3.50-4.00 – Highly

Effective; Strongly Agree; 2.50-3.49 – Effective; Agree; 1.50-2.49 – Moderately Effective; Moderately Agree; 1.00-1.49 – Ineffective; Disagree. In addition, all data were treated using a statistical software known as PASW version 26 to further interpret the result of the study using an alpha level of 0.05.

### **Ethical Considerations**

To protect the participants and institution used in the study, the researchers ensured that participants received full disclosure by describing fully the nature of the study and explaining the participants' right to refuse and right to withdraw and withhold information which is enclosed to signed the consent. Full consent containing the purpose of the study without any deception and concealment was obtained from the participants before the study. Voluntary consent was also secured. Absence of anticipated risks and benefits were also included in the letter to the respondents. The protection of confidentiality or anonymity of the participants and institution in the research were ensured as well. The study has been approved by the LPU-Batangas Research Ethics Review Committee.

### **RESULTS AND DISCUSSION**

Table 1 presents the effectiveness of online demonstrations and return demonstrations of basic nursing skills among student nurses. The composite mean of 3.18 indicates that the above indicators are effective. Among the items cited, providing students a copy of learning calendar got the highest weighted mean score of 3.42. This indicates that learning calendar is an effective tool for the students to stay connected with the weekly activities or events including the lecture topics, assignments, and announcements as well as the due dates and time zone. This tool was being utilized even during face-to-face classes and used to help the students to remain organized in managing their time that is beneficial for their academic performance.

According to the study results of Razali, Rusiman, Gan, and Arbin [3], time management can be associated with several factors including the time planning, time attitude, and time wasting. The result also showed that unlike races and genders, year level and faculty of students reveal the significant differences in time management behaviors. Meanwhile, it has been reported that time management has positive significance in relation to the academic achievement of students. Razali et al. [3] specified that

the most significant correlated predictor is time planning.

**Table 1**  
**Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses**

Indicators	WM	VI	R
1. Means of communication between Clinical Instructor and Student	3.02	Effective	9
2. Clinical instructor's method of demonstrating basic nursing skills	3.01	Effective	10
3. Accessibility of the recorded demonstration to the students	3.19	Effective	6
4. Providing the students a copy of checklist procedure with rationale	3.26	Effective	2
5. Setting a deadline of submission of return demonstration	3.22	Effective	4
6. Providing students a copy of learning calendar	3.42	Effective	1
7. Giving feedback to the return demonstration of the students	3.16	Effective	7
8. Utilization of learning modalities (Synchronous/Asynchronous)	3.24	Effective	3
9. Engagement of student nurses to RLE discussions	3.09	Effective	8
10. Rationalization of each step in the procedure before demonstration	3.22	Effective	5
<b>Composite Mean</b>	<b>3.18</b>	<b>Effective</b>	

*Legend: 3.50 – 4.00 = Highly Effective; 2.50 – 3.49 = Effective; 1.50 – 2.49 = Moderately Effective; 1.00 – 1.49 = Not Effective*

In the same way, providing the students a copy of checklist procedure with rationale (3.26) got the second rank among other indicators. This shows that students find it easier to demonstrate the procedure if they would just follow the checklist given by the clinical

instructors as a reference to attain a perfect score, at the same time understanding the rationale for each step. At present, clinical instructors give the students a copy of checklist procedure but they opt to give students a task to look and find the rationale of it at the book. This is to help the students to be more engaged in learning basic nursing skills.

This indicator can be linked with the study of Terzioglu et al. [4] where they evaluated the cognitive and psychomotor skills of the students using a checklist procedure on which each step that will be written by the students will correspond to one point, while each step that will be performed will be rated using a five-point likert scale, by observing the students if they were able to apply none, less than half, half, more than half, or all the activities in the checklist. Both cognitive and psychomotor skills were calculated out of 100 points.

In relation to this, Kerr, Ratcliff, Tabb, and Walter [5] specified that one of the principles that should be applied to guide direction of students in the self-directive learning Lab is upholding the emphasis on understanding the rationale behind each skill being practiced.

Following, students also perceived utilization of learning modalities (Synchronous/ Asynchronous) (3.24) as an effective indicator in online demonstrations and return demonstrations of basic nursing skills among student nurses. This indicates that based on the experiences of the students, they prefer to have time to collaborate with both the clinical instructors and the students during synchronous class, and time for themselves to accomplish their tasks in preferred time and pacing during asynchronous class. Students can follow with their mode of class on a certain day by reviewing their course outline/ learning calendar and by communicating with their clinical instructors for further announcements.

This is related to the study of Perveen [6] on which he stated that the combination of synchronous and asynchronous classes is preferred by the students on which during asynchronous session, they have a chance to catch up not only with the school activities, but as well as the responsibilities outside the idea of being a student. He asserted that this modality provides a face-to-face motivation which helps students to cope up with the difficulties being encountered.

On the other hand, synchronous session enhances the communication between the students and teachers thus enhances the listening and speaking skills. This modality is beneficial to students given the time to think and deliberate from lessons of synchronous classes.

Lim [7] also claimed that synchronous classes facilitate a real time collaboration between students and teachers which brings similarities to the engagement in traditional learning or traditional set-up. Asynchronous classes provide students enough time to study preventing them to be left out from a certain topic.

Setting a deadline of submission of return demonstration and rationalization of each step in the procedure before demonstration got the same weighted mean of 3.22 which are both interpreted as effective based on the student's perception. This gives an idea that students prefer to have a specific due date and time of submission for them to manage and calculate their time freely and wisely.

Second- and third-year nursing students reported that their clinical instructors give them at least one week to accomplish return demonstration and submit their outputs in the LMS given the exact date and time of due date, including the time remaining provided in the 'Deadlines' section of the LMS. In myLPU e-Learning Portal, you can review your calendar of activities and would help you to take note of what activities should you accomplish first.

This result can be linked with the study of Jiang and Albarracin [8] wherein they asserted that deadlines energize desired actions and are more likely to have an impact by exploiting large objectives. For example, movement and stasis can elicit broad action and inaction goals that influence unrelated, time-constrained decisions. Prior movement or control conditions were correlated with general action goals in one field experiment and three lab experiments, which had the perceived motivational fit with a behavior with a tight deadline. As a consequence, movement or regulation environments (as opposed to stasis) resulted in a greater likelihood of enacting behaviors within a limited time period.

On the other hand, clinical instructors meet the students virtually via Microsoft Teams or Zoom to discuss nursing procedure by sharing screen their recorded demonstration and process it through rationalization. Nursing students want to learn the rationale behind each step of a nursing procedure. This shows that students find this as beneficial to them, once they have their clinical duties.

Alo [9] indicated that the confidence of student nurses to perform procedure are manifested by mastery and understanding of the procedure in a specific nursing care demonstration. Student nurses' skills improved due to proper information, knowledge and understanding through return demonstration thus had a

better performance in the clinical duties. The mastery of procedure made a difference in the performance of the nursing students, and felt more confident in performing a specific nursing procedure.

Accessibility of the recorded demonstration to the students (3.19) is also found to be effective to them because it prevents struggles and difficulties in preparation for the return demonstration of basic nursing skills in RLE. Scagnoli, Choo and Tian [10] stated that video lectures give efficiency to student nurses for it has features such as availability, and accessibility. Student nurses can easily look back on lectures since the lecture is in a form of media and it can also help to further teach student nurses on basic nursing skills.

Clinical instructors of LPU- Batangas utilize google drive wherein they can store their videos securely while students can easily access it through the link provided by their clinical instructors. With that, students can either download the video once they had an access or replay it as many times as they want to memorize and master the procedure.

Following, students also believe that receiving feedback to their return demonstration (3.16) is effective in the online delivery of basic nursing skills in RLE. This shows that nursing students want to know their grade/score during clinical instructor's evaluation. They also want to hear some comments and critique to know where part or step of a nursing procedure they performed well, and where they needed an improvement. LPU utilizes myLPU e-Learning Portal as a platform to deliver engaging content and activities for learning online. One of its features is the 'feedback' section. It helps the clinical instructors in disclosing their feedbacks and comments while students can view it easily.

Kourgiantakis, Sewell, and Bogo [11] asserted that giving feedback is an important mechanism in augmenting learning and enhancing self-awareness. Students become aware of their capabilities and the things to improve regarding their work or learning. Feedback prevents misconceptions and misunderstanding in the platform of online learning, thus giving them a chance to improve their learned skills. This also helped in building student-teacher relationship as it promotes professional judgements.

In addition, Johnson (as cited in Edward Tolman, 1932) [12] recommended that students should be inspired to learn and use the feedback given as a constructive criticism to learn from mistake and retain the skills accurately. It can be correlated to the study of

Tawanwongsri and Phenwan [13], wherein they emphasized that utilizing the use of feedback helps the students have more desirable outcomes compare to not utilizing it.

Items such as engagement of student nurses to RLE discussions (3.09), means of communication between clinical instructor and Student (3.02) and clinical instructor's method of demonstrating basic nursing skills (3.01) got the lowest rank and rated the least. Based on the result of this study, these are all effective but it may indicate that there is a need for improvement in the interaction between students and clinical instructors.

Students' engagement in RLE discussion would help both the students and clinical instructors during the online delivery of basic nursing skills. Bryson and Andres [14] stated that, one way to improve the learning experience is to have the student engage in discussion, this way the student can grasp knowledge not only by listening but answering such questions. Student learns by actively being engaged in problem solving and critical thinking thus resulting to better outcome of learning.

It is similar to the claims of Busebaia and John [15] that students feel more confident when they are given the chance to speak or engage in class. Engaging in classes also give the chance for students to equal distribution of learning. It also helps them collaborate to enhance learning experience. This way, the teachers can properly assess whether the topic was fully understood or not.

In connection to this, means of communication between clinical instructor and student plays a vital role in the effectiveness of online demonstration and return demonstration of basic nursing skills among nursing students. Eom and Ashill [16] indicated that the bond between the clinical instructor and student nurses creates an impact for the enhancement of learning through online demonstration. The study suggests that course design, instructor, and dialogue are the strongest predictors of the student's satisfaction and learning outcomes.

In addition, Collier [17] concluded in his study that the ability to establish interpersonal relationships is the most important skill for clinical lecturers. Generally, approachability has become the most important personality trait necessary for an effective clinical instructor.

myLPU e-Learning Portal has a forum section that would help to facilitate communication between the clinical instructors and students. Other than that, students can also send a private message to their

clinical instructors via LMS or by sending an email to the provided institutional email of the clinical instructors in the 'course contacts' section. Some instructors opt to connect with their students thru messenger because it is more accessible and convenient to all.

In addition, LPU-B college of nursing gives the students a chance to address their concerns through virtual meetings with the chairman of the college. A homeroom meeting is also mandatory wherein students can communicate their concerns with their class adviser. However, students were always reminded that whatever their concern is, they have to consult it first with the instructors involve, to avoid misunderstandings and to easily formulate a resolution in a better way.

Lastly, there is an indication that there must be a careful consideration on the clinical instructor's method of demonstrating basic nursing skills in RLE. It is an important indicator to determine whether the online demonstration and return demonstration of basic nursing skills is effective or not. According to Eom and Ashill [16] having a clinical instructor demonstrates basic nursing skills can further help and elaborate student nurses to learn these procedures.

Clinical instructors of LPU-Batangas utilize the method of recorded video demonstration which they currently perceive as the most convenient way to deliver basic nursing skills in RLE. However, they are still trying to evaluate on which method is the best to facilitate learning of basic nursing skills among student nurses.

Table 2 presents the factors that hinder the effectiveness of online delivery of basic nursing skills in Related Learning Experience (RLE). Among the items cited, poor internet connection ranks as the greatest factor with a percentage of 92.10 % Yes votes and 7.90 No votes. This indicates that poor internet connection is considered as the greatest barrier or hindrance in the online learning experience of the second- and third-year nursing students.

Online learning demands convenient devices and fast internet connection so that students can follow during the discussion. That being said, unstable internet connection can hamper the quality education of the students by missing important topics during online class. There are nursing students who are given consideration for experiencing poor internet connection to be able to cope up with the lessons missed. An open communication between the clinical instructors and students is being practiced so that they

can address their situations regarding the stability of their connections during discussions.

**Table 2**

**Factors that Hinder the Effectiveness of Online Delivery of Basic Nursing Skills in Related Learning Experience (RLE)**

	Yes		No	
	f	%	f	%
1. Poor internet connection	234	92.10	20	7.90
2. Sudden or unexpected power outages	231	90.90	23	9.10
3. Poor home environment setup	161	63.40	93	36.60
4. Lack of educational technology resources (e.g. laptop, cellphone, camera, etc.)	128	50.40	126	49.60
5. Poor communication between clinical instructor and students	124	48.80	130	51.20
6. Lack of medical equipment available at home	233	91.70	21	8.30
7. Lack of motivation	188	74.00	66	26.00
8. Lack of support system (e.g. emotional support, videographer, assistant, etc.)	196	77.20	58	22.80
9. Financial problems	151	59.40	103	40.60

Salac [18] compares the current worldwide ICT situation with the current situation in the Philippines to indicate that the Philippines' Internet infrastructure lags behind that of contemporary emerging countries in Asia, particularly in terms of Internet connectivity. The Philippines was ranked 104th out of 160 nations in 2015, with an average Internet speed of 2.8 Mbps.

In this manner, Olum et al. [19] stated that, one of the barriers perceive by the respondents is due to poor internet connection of the medical students. This causes students to have limited access to learning and unable to grasp the knowledge that needs to be learned during online meetings.

Second, lack of medical equipment available needed for return demonstration of basic nursing skills in RLE is perceived as a great factor which is

experienced by 91.70% of second- and third-year level of nursing students. This indicates that students are having difficulty in performing nursing procedures due to lack of medical equipment at home. Most of the students reported that their satisfaction with their learning is affected because they cannot perform a nursing procedure using real medical equipment.

Nursing students made use of alternative medical equipment in performing basic nursing skills. Creativity and resourcefulness were graded in performing basic nursing skills as well as the mastery of the performed skill. This factor tested the resourcefulness and competence of the students at the present situation and could possibly affect their performance in the future clinical setting. Clinical instructors are very considerate about this matter given the fact that students do not have all the medical equipment needed in performing a procedure.

Nasr-Esfahani, Yazdannik, & Mohamadiriz [20] discussion revealed that electroshock had the lowest performance ranking. The low level of students' skills in using medical equipment was the cause of this decline. In this regard, they found that the use of care and treatment equipment was associated with the lowest score among nursing students.

Third, sudden or unexpected power outages with 90.90% votes is observed as another factor that hinder the effectiveness of online delivery of basic nursing skills in RLE. This usually happens when the weather is not in a good condition. Since most of the students rely on their Wi-Fi connection to be able to attend their classes during synchronous sessions, many are affected during sudden power interruptions.

Whenever there is an unexpected power outage, it caused students to have missed the class discussion. Clinical instructors provide considerations for students who cannot attend classes due to uncontrolled phenomena such as sudden electricity outages caused by a bad weather such as typhoon. Deadlines for activities and return demonstrations were extended for students who experience electricity outages. However, clinical instructors always advise the students to have a back-up load for mobile data in case of sudden power interruptions.

According to the study of Rotas and Cahapay [21] power interruption is one of the barriers in online learning of the students. Power outages are inevitable and unpredictable therefore students tend to missed classes which are important in terms of the student courses and learning. Students in the rural area are more prone to power outages and unstable connection

which makes students in the rural area to be left out in classes. The study suggested that institutions should adopt measures that brings convenience to students' situation to be able to have a positive learning outcomes.

In addition, Cahapay [22] showed in his study that electric power interruption is mainly affected by weather condition. Due to unpredicted weather bringing about heavy rainfalls, and strong winds, unplanned power interruption happened thus affecting the online learning experience of students.

Lack of support system such as emotional support, videographer, and assistant ranks fourth with 77.20% Yes votes. Followed by lack of motivation, considered as the fifth factor by nursing student with 74.00% Yes votes. The Global crisis happening at present affects mainly the mental and emotional health of everyone. Online learning aggravates the situation and affected the students. Lack of support and motivation can increase the burden and difficulties of the students while dealing with the new normal setting.

Thus, several webinars are conducted to help nursing students with mental health issues such as stress and anxiety. Synchronous and asynchronous classes are being utilized to avoid too much burden to the students give them time to reflect. College of nursing, in collaboration with Counseling and Testing Center (CATC), conducted a mental health webinar to give the nursing students a sense of time management to balance academic, physical and emotional needs. In addition, CATC continuously offers online counseling service to all the students to show their support and willingness to attend to the concerns of the students.

Collard, Scammell, and Tee (as cited by Lopez, 2018) [23] found that some undergraduate nursing students first found the placement traumatizing and a lack of support increased the impact of the stress and worry. In any case, over time, resilience was built through coping and adapting strategies such as talking with peers, positive reframing as well as learning to alter to the culture of the ward as experience was gained.

Poor environment setup got 63.40 % Yes votes from the respondents, which is an indication that still, more than half of the total population of second- and third-year nursing students perceive their home environment set up as a factor to learn. Students with poor environment setup related to unnecessary noises, poor lighting, small spacing of the house, and even family situations find it inconvenient to perform nursing procedures.

During online discussion of the basic nursing skills, chat box of Microsoft Teams and Zoom are being utilized for questions and recitations in some cases wherein the nursing students are exposed to poor environment. Student nurses exposed to poor environment has a tendency to be misheard when asking questions and answering during recitations. Utilizing features of MS teams and Zoom will help the continuity of the communication between student nurses and clinical instructors despite the poor environment.

Cahapay [22] showed that while taking the online assessment, students have issues with distractions in the area. It is said that remote learning makes it difficult to concentrate due to disturbances in the environment, whether the noise comes from nature or from a neighbor. According to him, at home, there are sights, smells, and sounds that make it particularly difficult to concentrate.

Next, financial problems with 59.40% of Yes votes can affect the online delivery experience of the nursing students. Financial aspect is one of the most affected in the pandemic. Even though students are at home, they still experience the burden in financial matter because some need to buy load for their mobile data so that they can follow through the discussion. Their use of gadgets can also increase their expenses at home, specifically in their electric energy consumption.

In response to the problem, the tuition fee of nursing students is decreased to the least possible amount. Miscellaneous fees that were not used to the maximum since the nursing students are using own sources therefore the miscellaneous fees were deducted from the tuition fee that nursing students are paying. This helped the parents to lessen their burden in financial aspect that is highly affected by the global crisis.

Lastly, Lack of educational technology resources such as laptop, cellphone, camera, etc. (50.40 %) and poor communication between clinical instructor and students (48.80 %) both got the lowest percentage of Yes votes. This is an indication that almost half population of the students' experience difficulty in the technological resources while only some of them find communication with their clinical instructors, a factor that hinder the online delivery of basic nursing skills. There is external educational tool that needs to utilize laptop or desktops but not all nursing students have extra devices therefore clinical instructor provided alternatives for the said nursing students. The online educational tools like lobster and Body Interact Stimulation utilized are made sure to be accessible by all students and it is examined to be effective in the



online learning of the nursing students. The World Bank [1] asserted that, when learners need to stay outside of classrooms, technology is one of the most important resources for supporting remote learning.

Other than the above mentioned factors, students also asserted that some of them struggle with filming and editing videos for their return

demonstrations. They also mentioned being burdened with the household chores and family problems at home. Lastly, due to amount of stress they are experiencing, student nurses tend to get sick and fail to focus during discussions of nursing procedures.

**Table 3**  
**Strategies that Facilitate the Delivery of Online Learning Environment**

Indicators	Weighted Mean	Verbal Interpretation	Rank
3.1 Step-by-step procedure	3.41	Agree	2
3.1.a Clinical instructor will perform step one of the procedure			
3.1.b The students will do the exact step			
3.1.c The teacher would give the prompt appropriate input and correction if necessary prior to continuing to the subsequent steps			
3.2 Role-playing	3.32	Agree	3
3.2.a A specific scenario or clinical simulations will be given			
3.2.b The clinical instructor will act to portray clinical simulations with scripts and dialogue that happens in the hospital setting			
3.2.c Debriefing will be done after the act			
3.2.d Students will share their observations, insights, or learnings about the act portrayed			
3.3 Smartphone video recording	3.28	Agree	4
3.3.a The clinical instructor will demonstrate procedures by an audiovisual presentation using smartphone			
3.3.b Assessment regarding the learning of students will be evaluated using a smartphone			
3.4 Use of instructional videos / Video lectures	3.46	Agree	1
3.4.a Clinical instructors will film videos of themselves or a have video from the internet, containing lectures and demonstration of nursing procedures.			
3.4.b Clinical instructors will send the video to student nurses for them to watch and download			
3.5 The Concept of Dance within the Online Environment	3.18	Agree	5
3.5.a The instructor takes the lead in teaching in the first step of the procedure			
3.5.b The student nurses follow the instructions.			
3.5.c If there are steps in the procedure that confuses the student nurses, the instructor will redo the specific step of the demonstration.			
3.5.d Once the student nurses mastered the steps in the procedure, student nurses perform the procedure without the instructions of the clinical instructor.			
<b>Composite Mean</b>	<b>3.33</b>	<b>Agree</b>	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree

Table 3 presents the different strategies that facilitate the delivery of online learning environment and their corresponding rankings based on the survey

conducted. The composite mean of 3.33 indicates that the students agree to the abovementioned indicators as strategies that facilitate the delivery of online learning environment. According to the result, use of

instructional videos / video lectures is the strategy that most second- and third-year nursing students agreed to be effective in facilitating the delivery of online learning environment, with the weighted mean of 3.46.

This strategy involves having a video lecture filmed by the clinical instructors in performing basic nursing skills and having it as a reference of learning for the nursing students. This strategy is the most efficient in terms of teaching basic nursing skills because of its accessibility. Having a recorded video lecture gives student nurses a capacity to repeat lectures that they do not fully understand or topics that they do not have a full grasp. This strategy is the most effective due to its availability to student nurses and efficiency in the online delivery of basic nursing skills.

At present, clinical instructors opt for going to the laboratory classrooms to demonstrate nursing procedures. This is to utilize the equipment available at school laboratories and to show the students how to properly use it in an accurate and correct way. The nursing students are able to re-demonstrate the procedure using the available equipment and resources at home. Resourcefulness and creativity in performing return demonstrations are being executed by the students. Through LMS, students can submit their outputs and will be graded by the clinical instructors using the checklist provided.

Jang [24] asserted that utilization of instructional video is found to have a positive effect among nursing students. In the study, it was showed that this strategy is effective in terms of retaining knowledge, self-efficacy and skills performance. This is also simple and cost-effective for the student nurses. In addition to that, Copper [25] stated that the use of instructional videos to teach clinical skills is a rapidly expanding field of e-learning that is based on observational learning, which is regarded as one of the simplest but powerful learning strategies.

Video lectures give efficiency to student nurses for it has features such as availability, and accessibility. Student nurses can easily look back on lectures since the lecture is in a form of media and it can also help to further teach student nurses on basic nursing skills. Video lectures provides a visualization of what the student nurses should learn such as taking vital signs, hand washing and gloving as a result the student nurses are abler to perform these basic nursing skills accurately compared to not having any visualization of the process [26].

Next, respondents also agreed that step-by-step procedure of nursing skills is a strategy that can facilitate the delivery of online learning which ranked

second with a weighted mean of 3.41. This strategy involves performing nursing procedure by each step as the student nurses follow. Then, teacher would give the prompt appropriate input and correction if necessary prior to continuing to the subsequent steps.

This strategy is effective in enhancing how the student nurses perform or execute basic nursing skills. Being guided in performing each step of a nursing procedure, there is a higher accuracy in the performance of the student nurses due to the corrections or enhancements received from the clinical instructors.

During the second semester of school year 2020-2021, clinical instructors of LPU-B expanded their ways on demonstrating basic nursing skills. They tried a live demonstration of nursing procedure to the students via zoom meeting. It was implemented at school laboratories wherein they perform a specific nursing procedure, utilizing the appropriate equipment and nursing mannequins available. This is similar to what is being practiced on the traditional/ face-to-face classes. However, in their step-by-step strategy, instructors do not require students to turn on their cameras giving considerations with their internet connections. With that, no corrections are being given to the students while they are following the step-by-step procedure.

In relation to this, Johnson and Lambeth [27] stated that step-by-step procedure is a more up to date approach. It is a procedure that ensures the progression in performing basic nursing skills is enhancing and student nurses are more capable of performing procedures adequately if this procedure is put to practice accompanied by repetition of steps. This strategy guarantees more insight and learning both for clinical instructors and student nurses.

Role-playing (3.32) ranks third as one of the strategies considered to facilitate the delivery of online learning environment. This strategy enhances the creativity of nursing students in portraying roles given thus enhancing knowledge in real life situations wherein basic nursing skills need to be performed. This strategy also promotes better retention of knowledge due to its new and creative way of learning which involves active participation of student nurses.

The nursing students in LPU-B are bringing their original ideas that portray the role playing return demonstration. During face-to-face learning, clinical instructors conduct a competency exam to further develop and determine the ability of student nurse wherein everyone is assigned to do their role in performing procedures from previous return

demonstrations. Meanwhile, in the online learning, the nursing students collaborate with their family members to serve as their patients, doctor, circulating nurse and other healthcare team members need in a particular scenario. It also cultivates their imagination on what a real-life scenario is in a hospital setting. This strategy will help the student nurses to develop their efficient nursing skills during online learning.

In relation to this, Allan [28] stated that using “actors” in teaching end-of-life clinical simulation will help enhance the learning capability of the nurses. This strategy enables the student nurses to visualize real-life scenarios and both their critical and creative thinking are enhanced and put to practice. Role-playing strategy benefits the students because this strategy promotes cooperation and coordination of the group by sharing insights, thus enhancing student nurses’ knowledge, leaving no member of the group behind in learning.

The use of smartphone for video recording (3.28) ranked 4<sup>th</sup> among the strategies that can facilitate online learning environment. This promotes efficiency in response to lack of technological equipment. This strategy enhances better assessments, learning and feedback and prevents delay of learning due to lack of devices. Smartphones are widely used by student nurses and clinical instructors thus making this strategy effective in coping up with lack of technological devices that hinders the learning of student nurses.

Almost all of the nursing students in LPU-B use smartphones in recording their return demonstration. In accordance with the fact and reality that smartphones are very useful device in so many ways. It is part of essential tool for today’s generation. This could be the most flexible gadget that will help the nursing students in recording return demonstrations.

In relation to this result, Jeong [29] concluded on his study that the smartphone video recording practice technique used in essential nursing science practice was efficient for the development of the student nurses’ necessary nursing practice competency and learning fulfillment. Considering the qualities of student nurses’ advancement stage, knowledge about smartphones, and levels of cell phone usage, wise learning can be applied to their nursing practice.

Lastly, the respondents agreed that the concept of dance within the online environment is also relevant through the delivery of online learning which ranked fifth with a weighted mean of 3.18. This strategy is considered the least teaching strategy to use in teaching basic nursing skills, because it is not viewed efficient to apply the concept of a dance in performing a nursing

procedure. Concept of dance strategy is an innovative way of teaching student nurses basic nursing skills and it also enhances student-student relationship. This strategy may need more studies to be effectively applied in terms of the online delivery of basic nursing skills.

Frazer et al. [30] described that the dance concept becomes more interactive when exchange of partners happened which gives the student nurses a student-student relationship elevating the chances of getting more ideas, experiences, and opinions from one other. Implying this method, helps the student nurses to practice camaraderie and lessen the chance of being left behind in the group.

The concept of dance within the online environment is similar to what is being practiced during face-to-face classes. Instructors will demonstrate a nursing procedure then students will be given an ample time to practice and master it. Student nurses at LPU-B perform their return demonstration in front of their clinical instructor together with their corresponding partners. The one was able to perform the procedure while the other one represented as a patient.

Other than the abovementioned strategies, most of the students strongly suggested a limited face-to-face classes in RLE. They truly believe that it is the most effective way to suffice their learnings in performing basic nursing skills. They also mentioned the importance of strengthening good communication between students and clinical instructors in dealing with this new normal setup.

Table 4 displays the correlation between the factors that hinder the effectiveness of online delivery of basic nursing skills in Related Learning Experience (RLE), effectiveness of online demonstrations and return demonstrations of basic nursing skills among student nurses and strategies that facilitate the effective online delivery of basic nursing skills in RLE.

It was observed that there was a significant relationship between poor internet connection ( $p=0.002$ ), poor home environment setup ( $p=0.015$ ) and poor communication between clinical instructor and students ( $p=0.009$ ), to effectiveness of online demonstrations and return demonstrations of basic nursing skills among student nurses since the obtained  $p$ -value were less than 0.05 alpha level. This means that the effectiveness of online demonstration was affected by the above -mentioned factors.

Poor internet connection affects the effectiveness of online delivery of basic nursing skills due to the reason

that internet is the means of communication between clinical instructors and student nurses. The online delivery of the basic nursing skills is affected depending on how good or poor the internet connection the student nurses have and parallel to this is the sufficient knowledge retain and acquired by them. Student nurses who have poor internet connection have higher chance to have a poor knowledge acquired from the online delivery of basic nursing skills.

A study conducted by Olum et. Al [19] shows that the modern and so called e-learning have a negative response in terms of learning most especially in the field of medical education. One of the barriers perceived by the respondents is due to poor internet connection of the medical students. This causes students to have limited access to learning and unable to grasp the knowledge that needs to be learned during online meetings.

**Table 4**  
**Relationship Between Factors that Hinder the Effectiveness of Online Delivery of Basic Nursing Skills in Related Learning Experience (RLE), Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses and Strategies that Facilitate the Delivery of Online Learning Environment**

Poor internet connection	rho-value	p-value	Interpretation
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	15.200 <sup>a</sup>	.002	Significant
Strategies that Facilitate the Delivery of Online Learning Environment	.690 <sup>a</sup>	.708	Not Significant
Sudden or unexpected power outages			
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	1.835 <sup>a</sup>	.607	Not Significant
Strategies that Facilitate the Delivery of Online Learning Environment	2.583 <sup>a</sup>	.275	Not Significant
Poor home environment setup			
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	10.472 <sup>a</sup>	.015	Significant
Strategies that Facilitate the Delivery of Online Learning Environment	1.368 <sup>a</sup>	.505	Not Significant
Lack of educational technology resources (e.g. laptop, cellphone, camera, etc.)			
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	4.902 <sup>a</sup>	.179	Not Significant
Strategies that Facilitate the Delivery of Online Learning Environment	3.671 <sup>a</sup>	.160	Not Significant
Poor communication between clinical instructor and students			
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	11.654 <sup>a</sup>	.009	Significant
Strategies that Facilitate the Delivery of Online Learning Environment	2.097 <sup>a</sup>	.350	Not Significant
Lack of medical equipment available at home			
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	1.226 <sup>a</sup>	.747	Not Significant
Strategies that Facilitate the Delivery of Online Learning Environment	1.612 <sup>a</sup>	.447	Not Significant
Lack of motivation			
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	6.094 <sup>a</sup>	.107	Not Significant
Strategies that Facilitate the Delivery of Online Learning Environment	2.145 <sup>a</sup>	.342	Not Significant
Lack of support system (e.g. emotional support, videographer, assistant, etc.)			
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	6.716 <sup>a</sup>	.082	Not Significant
Strategies that Facilitate the Delivery of Online Learning Environment	2.971 <sup>a</sup>	.226	Not Significant
Financial problems			
Effectiveness of Online Demonstrations and Return Demonstrations of Basic Nursing Skills Among Student Nurses	5.552 <sup>a</sup>	.136	Not Significant
Strategies that Facilitate the Delivery of Online Learning Environment	.485 <sup>a</sup>	.784	Not Significant

Legend: Significant at  $p$ -value < 0.05

Poor communication between clinical instructors and students is also significant to the effectiveness of online demonstration and return demonstration of basic nursing skills. Communication is essential in addressing the concerns of the students to the instructors in the online learning setup. LPU-B utilizes myLPU e-Learning Portal and they continuously enhance it for the betterment of the learning experience of the students. It has a 'forum section that would help to facilitate communication between the clinical instructors and students. Learning modalities also give both the students and instructors a time to accommodate all the concerns and difficulties thus creating a positive learning environment.

The combined modality of synchronous and asynchronous class according to the study of Perveen [6] is preferred by students and that occupational synchronous classes enhance the communication between the students and teachers thus enhances the listening and speaking skills.

Poor home environment setup also affects the effectiveness of online delivery of basic nursing skills due to the reason that student nurses stayed in their homes which serves as the new normal classroom. The classroom environment during face-to-face classes were changed into at-home classroom set up which affects the learning capability of the student nurses. Poor home environment set up can negatively affect the learning of the student nurses due to barriers present at home such as loud noises and more distractions are present at home than in classrooms. It affects the ability of the student nurses to grasp knowledge and to perform well during classes.

It is said that remote learning makes it difficult to concentrate due to disturbances in the environment, whether the noise comes from nature or from a neighbor. According to Cahapay [22], at home, there are sights, smells, and sounds that make it particularly difficult to concentrate.

Meanwhile, it is presented that there is no significant relationship between sudden or unexpected power outages ( $p = 0.607$ ), lack of educational technology resources ( $p = 0.179$ ), lack of medical equipment available at home ( $p = 0.747$ ), lack of

motivation ( $p = 0.107$ ), lack of support system ( $p = 0.082$ ), and financial problems ( $p = 0.136$ ) to effectiveness of online demonstrations and return demonstrations of basic nursing skills among student nurses since the obtained p-value were more than 0.05 alpha level. This means that the effectiveness of online demonstration was not affected by the above - mentioned factors.

Lastly, it is clearly shown in the table that there is no significant relationship between all the factors that hinder the online delivery of basic nursing skills in Related Learning Experience (RLE) to the strategies that facilitate the delivery of online learning environment.

## CONCLUSION AND RECOMMENDATION

All of the current practices of LPU-Batangas College of Nursing are effective based on the experiences of the nursing students during the online delivery of basic nursing skills. The factors that got the highest vote as hindrances in the effectiveness of online delivery of basic nursing skills in RLE as perceived by the nursing students are uncontrollable by the institution which include poor internet connection, lack of medical equipment available at home, and sudden or unexpected power outages. Thus, strong connection between students and clinical instructors is essential in dealing with these difficulties. Nursing students agreed that all proposed strategies could facilitate the delivery of online learning environment. The strategy that got the highest rank was the current strategy being utilized by the clinical instructors of LPU-Batangas College of Nursing. Factors that hinder the effectiveness of online delivery of basic nursing skills in RLE are not associated to the strategies that facilitate the delivery of online learning environment. These variables do not relate and affect each other in the study. Proposing a plan of action to enhance the effectiveness of online delivery of basic nursing skills in RLE would be a great help for the betterment of the online learning experiences of the student nurses.

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