Utilization of Blended Learning Approach to Nursing Education

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Abstract – *This study was conducted to know the impact of blended learning in academic attitude of the nursing students of Lyceum of the Philippines University-Batangas. Quantitative method of research and a self-made questionnaire for collecting data were used. The respondents of this study were one hundred sixty-five (165), the total student population of College of Nursing who had been previously exposed to the use of different blended learning approaches. Results revealed that simulation activities is the most blended learning approach utilized in different professional nursing subjects and on-line examination is the least among the approaches utilized by the class. It also found out that students account to access the LMS (Learning Management System) is the implemented practices employed by the teachers and that face-to-face sessions are carrying great weight among students that can enhance the nursing students' academic attitude even without the aid of on-line learning. This study is a helpful guide in knowing the students' perception about blended learning and how the students are motivated in attaining the learning objectives.*
Keywords – *Blended learning, impact, learning management system*

INTRODUCTION

Through the years, the methods of educating the people have been transformed greatly. From using tons of writing materials as a method into using paperless methods, education can happen. This great innovation opens many possibilities and opportunities to teachers and learners. Teachers do have different teaching styles and learners do have a different learning style, that's why blended learning is a useful tool in providing broad spectrum of methods to use in education.

Students and educators both achieve their main motives in education with the use of Teaching-Learning Activities. Teaching-Learning activities are composed of the methods an educator uses to deliver their education. Most of the time, students and educators prefer the use of face-to-face or traditional type of learning, but nowadays, there are huge spectrums of methods a teacher can use to teach, especially with the modern innovation of technology. The use of technology on the classroom has morphed from optional to organic. In fact, its transformed 21st-century education, offering a normative tool for adapting to varied student needs a scalable approach to differentiating for student learning styles, and a collaborative must-have with its vast offering of virtual meeting and storage options. Blended learning occurs when an education program combines Internet-based media with traditional classroom methods.

In addition, Li, et al. [1] stated that Blended learning is defined as the mixture of traditional classroom-based approach and use of technology or e-learning for conveying education. In the blended-learning environment, learners take the advantages of traditional learning environment where face-to-face interaction happens with the instructor, as well as enjoying flexibility that the e-learning caters.

Blended learning isn't only limited with the use of technology, it is about looking for better ways of supporting learners in attaining the learning objectives and providing them with the best possible learning and teaching experiences, as well as giving the instructors support with their roles as educators [2]. Blended learning has offered many ways to cater education. It matches the gap between the learning styles of different types of students to the information to be delivered by the educator. It's like choosing the right type of teaching to each student. Blended learning is getting popular as it has been proven to be an effective method for teaching students with a seemingly diverse population while incorporating the innovation of online teaching resources. Selecting the most suitable approach for a blended course is the biggest issue that higher education teachers who are new to the concept of blended learning may possibly face [3]. According to Kharb, et al. [4], a single approach or strategy is not applicable for every student or even most of the students in a class. The educator must give a variety in catering the subject matter and incorporating the different learning styles of that is preferred by the students through matching to help create an effective and comprehensive learning environment for all of the students.

The blended learning approaches that are identified by the researchers are online assignments, online feedback, online discussions, online examinations, face-to-face interactive discussions, reflective essay and case analysis discussion at classroom, simulation activities, oral presentations, group discussions, peer assessments, and video presentations. Despite of all the convenience the blended learning provides us, there can be a downside to all sorts of things. Like many interventions, blended learning faces issues like the extent of its implementation, the awareness of its users or consumers, its impact to student's motivation or attitude, and many more things to consider.

This study introduced connectivism as a new learning theory that will help combine the traditional or formal way of imparting knowledge to online type of learning, whilst not neglecting the latter. Connectivism in this institution is best displayed in the utilization of Moodle Classrooms or LMS (Learning Management System) that serves as a learning platform for distance and blended learning. In present times, technology is very much inclined with the sharing and creation of knowledge. It is used to simulate the usual classroom, using a website. Teachers serve as administrators which posts lecture and examinations, which students in return, studies and answers the latter. In that sense, student get the same information and knowledge even without the presence of a usual or concrete classrooms without completely eradicating the traditional way of learning and teaching.

The researchers conducted this study for the prime reason that we are students, and as students, we are concerned about how this blended learning helps us and our instructors in attaining our learning objectives and how this approach motivates us in terms of our attitude and motivation and how this approach was implemented in our university, Lyceum of the Philippines University-Batangas. This will also be beneficial not only our institution but also to our clinical instructors and students who are the main people when it comes to education

OBJECTIVES OF THE STUDY

This study aims to determine the utilization of blended learning approach in nursing education, specifically to identify the different blended learning approaches utilized in different professional nursing subjects; to determine the practices in the implementation of the Learning Management System; to determine the impact of Blended Learning Approach to students' academic attitude; and lastly to determine the difference of responses on practices on the implementation of LMS and impact of Blended Learning approach to nursing student's academic attitude when grouped according to Year Level.

MATERIALS AND METHODS

Research Design

This study used Quantitative Research design. According to Yilmaz [5], Quantitative methods require the researcher to use a pre-constructed standardized instrument or pre-determined response categories into which the participants' varying perspectives and experiences are expected to fit. They generally demand randomly selected large representative samples in order for researchers to generalize their findings from the sample, i.e. from where the logic and power of probability sampling derive their purpose, generalization. The major advantage of this method is that it allows one to measure the responses of a number of participants to a limited set of questions, thereby facilitating comparison and statistical aggregation of the data. The results of closed-ended questionnaires help the researchers to identify a general pattern of participants' reactions to a treatment or programme. Quantitative methods and procedures allow the researchers to obtain a broad and generalizable set of findings and present them succinctly and parsimoniously.

Participants of the Study

The respondents are Nursing Students of LPU-B. A total of 119 respondents from level 1, 16 from level 3 and a total of 30 from level 4 with 165 total populations of nursing students. LPU-B is known to have been using the blended learning approach. They opt to get a hundred percent of the total population of nursing students as their subject participants.

Research Instruments

The researchers utilized a survey questionnaire to gather information and to know the impact of Blended Learning in the Nursing Students' Academic attitude. It is a tool or device for securing answers to the set of questions made. To supplement the contents, the draft of the questionnaires were first critiqued by the research adviser and referred to some experts for some corrections, suggestions, verifications and improvements. These corrections were made to avoid indefinite answers from the respondents.

In the process of accomplishing this research, the researchers have made questionnaires to supplement their propositions and to gather data from actual people that may have took part on this advancement. The researcher consulted the research adviser for checking and reviewing. These activities prove and validate the effort of the researchers.

The draft was submitted to the research adviser for review of the research paper and asks for comments and suggestions. These serve as the clarification on its content. The corrections are being applied. Following that, the researchers have conducted a pilot testing from twenty (20) respondents and submitted it to the statistician to undergo a validity/reliability testing. On the reliability testing, the research instrument was divided into three (3) parts, the first part scored 0.898, remarked as Good, the second part scored 0.943, remarked as Excellent, and last part scored 0.946 which was interpreted as Excellent.

Data Gathering Procedure

In data gathering, the researchers came up with a process to gather information that would help the study. First the researchers think of the title and identify its target. And the researchers use literature review to help and the researcher make their own survey questionnaire as their research instrument and then the researcher presented to their adviser for opinions, recommendations and approval. After the approval and validation of the research instrument, the researchers administer their research instrument to the total population of the nursing student. Then the researchers distributed the survey questionnaire and collected it right after the respondents answered the questionnaire. Questionnaires were collected, tallied, analyzed and evaluated to have the final result.

Statistical Treatment of Data

The data gathered in this study were classified, tallied and tabulated. The tables were presented, analyzed and interpreted to gather reliable findings and valid conclusions using the appropriate statistical method. The treatment used in these study are the Frequency to refer to the number of respondents, also a Weighted mean this was used in identifying the barriers encountered by Students in utilizing Blended Learning programs and lastly the Ranking this is utilized to demonstrate the array of items in the questionnaire from highest lowest in terms of their frequency.

Ethical Considerations

In this study, the researchers ensure that the samples have received a full disclosure of the nature of the study, the risks, benefits and alternatives, with an extended opportunity to ask questions. The researcher will give forethought to the maximization of benefits and the reduction of risk that might occur from the research. The researchers assure the respondents that information's provided not exposed the result obtained from the tests to other people to keep their confidentiality. The distribution of research instruments was fair and unbiased and an informed consent is secured.

RESULTS AND DISCUSSION

Table 1. *Blended Learning Approach utilized in Different Professional Nursing Subjects*

	Yes		No	
	F	**%**	**f**	**%**
1. Giving on-line assignment	136	82.40	29	17.60
2. Online feedback of teacher to submitted assignment	110	66.70	55	33.30
3. On-line discussion with faculty and peer	54	32.70	111	67.30
4. On-line examination	67	40.60	98	59.40
5. Face-to-face interactive discussion	146	88.50	19	11.50
6. Discussion of reflective essay and case analysis in the classroom	143	86.70	22	13.30
7. Simulation activities	156	94.50	9	5.50
8. Oral presentation during face-to-face meeting	151	91.50	14	8.50
9. Group Discussion	150	90.90	15	9.10
10. Peer assessment	133	80.60	32	19.40
11. Availability of video presentations	149	90.30	16	9.70
Average		**76.85**		**23.15**

Legend: 2= Yes(Y), 1= No (N)

Table 1 shows the Blended Learning Approaches utilized in different professional nursing subjects, and all the items listed had an average of 76.85 percent which was accounted among 125 respondents. This just means that most of the items listed above are utilized in teaching different professional nursing subjects during classroom discussions or even simulation activities. Further, it can be noted that most of the approaches was part of the teaching learning activities that can be found in the syllabus. However, there are 23.15 percent among students who expressed that they are not utilizing the blended learning in the lesson which is quiet alarming because if the teacher utilized different learning approach it is intended to all students enrolled in the subject.

According to Kharb, et al. [4], a single approach or strategy is not applicable for every student or even most of the students in a class. The educator must give a variety in catering the subject matter and incorporating the different learning styles of that is preferred by the students through matching to help create an effective and comprehensive learning environment for all the students.

When put together the different blended learning approaches, the following are the popular methods utilized during classroom discussions in which where the students are more familiar to, such as simulation activities, oral presentation during face-to-face meeting

and group discussion garnered a highest percentage of 94.50, 91.50, and 90.90 respectively and those items ranks first, second and third among the list of blended approaches which means that those were the common tool used by the teacher in conducting the class

With the total of one hundred sixty-five responses, one hundred fifty-six answered "Yes" in agreement to Simulation Activities with a percentage of 94.50 of "Yes" and only nine of them answered "No" with a percentage of 5.50. This simply mean that simulation activities are the most utilized approach during the students learning process because it was known as part of the traditional teaching methodologies used long time ago in which teachers and students are used to. Students acquired or gained more knowledge through learning-by-doing during return demonstration and simulation activities. As mentioned by Kable, et al. [6], most students in a University in Australia agreed that simulation supported their learning in a specific course. Evidence shows that students were able to achieve higher scores with simulation Activities.

On the other hand, one hundred fifty-one answered "Yes" in agreement to Oral presentation during face-to-face to meeting with a percentage of 91.50 of "Yes" and only fourteen of them answered "No" with a percentage of 8.50. This means that students agreed that oral presentation is also utilized in the classroom because it is also one of the traditional and oldest ways of teaching, where students listen during the entire discussion and if they want to clarify something they can get immediate feedback from the teachers or even from the references like the textbook they are using. This make the discussion more interactive as students and teachers are all together in one room doing a personal, face-to-face discussion. As mentioned, students preferred a face-to-face discussion of different classroom activities as well as during oral presentation because they become more engaged, and they received instant feedback from the teacher [7]. Further, Tayem [8], indicated that group discussion enhances the students' engagement and motivation through a course because there is an interactive approach in the group discussion strategy of teaching.

Subsequently, one hundred fifty answered "Yes" in agreement to Group discussion with a percentage of 90.90 and only fifteen of them answered "No" with a percentage of 9.10. Group discussion, as one of the teaching-learning activities is also traditional and is greatly used because it develops the social relationships between students and the instructors.

Among the lowest percentage achieved about different blended learning approaches, the following are the least popular methods which students are less familiar to, such as On-line feedback of teacher to submitted assignments, On-line examinations and On-line discussion with faculty and peer garnered lowest percentage of 66.70 40.60, and 32.70 respectively and those items ranks ninth, tenth, and eleventh among the list of blended approaches. On-line teaching is not popular at this time among the respondents because teachers are available during the actual class at dye time, students and teaches usually meet at prescribed time at regular interval, so use of on-line class is not utilized that's make it less familiar among students.

One hundred ten answered "Yes" in agreement to On-line feedback of teacher to submitted assignments with a percentage of 66.70 and only fifty-five of them answered "No" with a percentage of 33.30. This approach was part of the on-line platform utilized in the school; most of the students were not completely oriented about the features of this kind of technology. As argued by Yoke, et al. [9], giving online corrective feedbacks is practical because students who were given this feedback accomplished better to those who were addressed through the conventional or traditional way of giving feedbacks.

Sixty-seven answered "Yes" in agreement to On-line examinations with a percentage of 40.60 and ninety-eight of them answered "No" with a percentage of 59.40. This approach is also a part of the on-line platform used in the university; most of the students haven't probably encountered this kind of feature because written exams is still the preferred way of professors in terms of giving examinations. In contrast, Poon [10], specified that even though examinations through online medium are not pervasive, it can facilitate an increase in the passing rate of student in terms of examinations.

Lastly, fifty-four answered "Yes" in agreement to On-line discussion with faculty and peer with a percentage of 32.70 and one hundred eleven of them answered "No" with a percentage of 67.30. This approach is still a part of the on-line platform utilized in the university; apparently, most of the students haven't used this kind of feature because it is too much complicated for the professors and the students. One of the reasons is that they have no strong network connection, and it is nearly impossible for the student and the teacher to be on-line at the same time especially if the student needs to travel a long drive to be home as well as the teacher. On-line communications need a strong internet connection, it is also time bounded, which means that the teacher will set the time for both students and the teacher to be on-line during discussion or giving test examination. As eloquently stated by Poon [10], having online discussions may be hard to implement because of certain issues like slow internet connections that can inhibit the student's ability to engage in online discussion which could directly affect learning.

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Table 2. *Practices in the implementation of LMS (Learning Management System)*

	WM	Verbal Interpretation	Rank
1. Different Blended Learning approach was introduced and discussed before the class started	3.25	Implemented	5.5
2. Institutional orientation about learning management system (LMS) was provided	3.23	Implemented	7
3. Instruction was given about the approach to be used before the activity started.	3.33	Implemented	2
4. It is reflected on the student teaching and learning activities.	3.26	Implemented	4
5. Students were given an account to access the LMS.	3.52	Highly Implemented	1
6. All blended learning approach was written in the syllabus.	3.25	Implemented	5.5
7. Students were asked to view the Moodle room by their professor on a specific time.	3.29	Implemented	3
8. Faculty members monitor the use of the Learning Management System.	3.12	Implemented	9
9. The center for technical education monitors the teacher in the use of LMS.	3.05	Implemented	10
10. Assistance is given to students with difficulty in using LMS.	3.13	Implemented	8
Composite Mean	**3.24**	**Implemented**	

Legend: 3.50 – 4.00 = Highly Implemented; 2.50 – 3.49 = Implemented; 1.50 – 2.49 = Less Implemented; 1.00 – 1.49 = Not Implemented

Table 2 shows the practices in the implementation of LMS utilized as an approach in a blended learning activities in the classroom or even outside the four corners of the room with a composite mean of 3.24 and verbally interpreted as implemented, but this not necessarily mean that students and teachers are utilizing it. The management ensure that LMS is available to ensure quality education. The findings show that practice in implementing LMS for different blended learning approaches was implemented by the teachers and to ensure that respondents will have access to on-line learning. Further, it was evident that based on the responses blended learning approach are known to students as it was introduced to them an orientation was made prior to its utilization. Students were given an instruction on how to make use of all the available resources; in addition, students were given an account to access the LMS.

In addition, Buckland [11], posited that today, students are seeing and utilizing computerized gadgets for learning and recreational purposes. Using internet, students have the chance to see the world internationally all around rapidly. Therefore, colleges need the working of e-learning assets set up and programs for workforce to utilize appropriately to prepare students more than sufficiently to be successful in the global society.

Based on the responses of the respondents the highest learning management system being practiced in the implementation of LMS is students were given an account to access the LMS, with a weighted mean of 3.52 which was verbally interpreted as highly implemented. As one of the management enhancements of providing quality education the Management Information System adopted a Moodle that will be useful to students learning. It was followed by instruction was given about the approach to be used before the activity started and students were asked to view the Moodle room by their respective professor on a specific time with a weighted mean of 3.33 and 3.29, respectively and verbally interpreted as implemented.

The center for Technology- enabled education monitors the teacher in the use of LMS Assistance is given to students with difficulty in using LMS and Faculty members monitor the use of the Learning Management System (MyLPU). Instructors have access to this system, which enables them to host a range of online. LMS was intended to help teachers reflect on students' processes of learning as well as meeting the needs of individual students. However, the capabilities of any LMS are required to be evaluated to explore the effectiveness and the organization of the system, which can result in detecting the room for improvement.

Based on the responses of the respondents the lowest learning management system, the center for technical education monitors the teacher in the use of LMS with a mean of 3.05 it was followed by assistance is given to students with difficulty in using LMS and faculty members monitor the use of the learning management system with a mean of 3.13 and 3.12, respectively and were interpreted as implemented.

According to Hilliard [12], various students today regularly look for approaches to access some type of e-learning to increase their learning experiences in a convenient manner. Working learners and students with families and different obligations frequently look for different types of online or blended learning encounters to proceed or improve their educational experiences.

On the other hand, asynchronous learning enables educators and students to collaborate and take part in the instructive procedure at distinctive time regardless of their areas. The use of synchronous with asynchronous activities is determined by the available technology, cost, and maintenance is changed in accordance with suit each course, educator, and audience.

Table 3 revealed that respondents agreed that there was an impact of blended learning approach to the academic attitude of the nursing students with a composite mean of 3.31 interpreted as agree.

Table 3. *Impact of blended learning approach to nursing student's academic attitude*

	WM	VI	Rank
1. Face to face sessions are meaningful when it is followed by online learning experiences that I can view anywhere.	3.28	Agree	15
2. Blended learning can control how fast or slow students move through lesson	3.27	Agree	18
3. Face to face learning with online videos increases motivation to learn.	3.30	Agree	12
4. Blended learning provides clear understanding of the subject matter	3.38	Agree	1
5. Blended learning approach enhances students' ability to become resourceful	3.35	Agree	2
6. Combined online and traditional way of learning augmented the missing information of the learners	3.28	Agree	16
7. The use of online learning material is rapid and flexible	3.29	Agree	14
8. Mixed approach of teaching and learning posts productivity and enhances students class participation	3.35	Agree	2
9. The blended learning program emphasizes the lesson that is discussed inside the classroom.	3.35	Agree	4
10. Blended learning is more flexible to both students and instructors.	3.30	Agree	10
11. Blended learning approach enhances my ability to felt that my point of view was acknowledge by the teacher and other course participants.	3.32	Agree	7.5
12. Blended learning approach increases the students' understanding of the concept, thus enhances academic performance and passing rate	3.32	Agree	7.5
13. Blended learning approach increases student's engagement in the subject matter	3.33	Agree	5
14. Blended learning approach promotes students' retention and helps develop good study habit	3.28	Agree	16
15. Blended learning approach helps me to manage the time better.	3.25	Agree	19
16. Blended learning post a positive effect on different classroom dynamics and intellectual interaction	3.30	Agree	12
17. Blended learning approach improve the quality of instructions	3.33	Agree	6
18. Blended learning enhances students' experiences that can apply in the hospital setting	3.31	Agree	9
19. Blended learning approach gives the student enough time to review and reflect on the subject matter discussed by the teacher	3.30	Agree	10
20. On-line learning material can be accessed more effectively and rapidly after face-to-face discussion	3.23	Agree	20
Composite Mean	**3.31**	**Agree**	

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

This simply means that students appreciated blended learning approach utilized by the teachers, not merely using traditional face-to-face interaction and oral discussion but more so students started to be recognized other teaching methodologies applied thru blended learning approaches. A combined use of traditional classroom learning with computer-based or online learning becomes popular now a days among students although it is not yet fully utilized. This also shows that instructions and expectations from the teacher were clearly explained and given to students which blended learning initiative working correctly or in the expected way in which changes and needs that every student striving for was provided and supported.

Another indication is that the students are using technology just for the sake of getting technology, but not knowing the importance on understanding how that technology is being used. Anthony [13] believed that using of technology, whether students are doing it inside the classrooms or not, it is about what they're doing with that technology and how it's affecting their learning process that makes the difference.

It can be gleaned in the table that the nursing students agree that blended learning provides clear understanding of the subject matter. This obtained the highest weighted mean of 3.38 and interpreted as agree. Through variety of activities, techniques and multi-media which included pictures, texts, videos, and PowerPoint slides used in different professional nursing subjects, it indicates that students clearly understand the subject matter. Another is the combination of live, interactive, face-to-face instruction along with online learning strategies attributes to student's learning. However, even when they didn't understand the subject during the lesson, they knew there was a source waiting for them to help understand that subject.

The following items garnered a weighted mean of 3.35 are as follows: stated that blended learning approach enhances students' ability to become resourceful and mixed approach of teaching and learning posts productivity and enhances students class participation, verbally interpreted as agree. These show that blended learning enhanced the cognitive skills, self-confidence, and problem-solving skills of students. It also improves collaboration and interactivity between students and teachers as this help to successfully achieve positive learning outcome. It can be concluded that blended learning improves and engage the student's motivation and involvement during the teaching and learning process. The use of online technology can increase the engagement and motivation of students. Consequently, it promotes the active learning of students [14].

Based on the table, the blended learning program emphasizes the lesson that is discussed inside the classroom as revealed by a weighted mean of 3.35 and verbally interpreted as agree. This shows that lessons are

easy to understand by reading the course notes online after class discussion. Students manage to remember most of the lesson content when the lesson is over, saying that they do not encounter any difficulty when doing assignment. Another is discussions held in the classroom are beneficial and make it easier for nursing students to understand the lesson. When the lesson is presented in such media, they can establish a firmer connection between the topics and look from a wider perspective. Blended learning encourages students to be active engagers in their learning rather than passive bystanders fosters an environment of growth and opportunity. Tucker [15], stated that when students begin redefining their role in a class from passive observer to active participant, they also begin to recognize each other as valuable resources and understand that teachers are not the only source of wisdom and 'correct answers.

On the other hand, least on the impact of blended learning of the students' attitude is blended learning can control how fast or slow students move through lesson. It is an indication that through the utilization of blended learning, teachers can track students' progress by using the technology. They have access to global resources and materials that meet the students' level of knowledge and interest. E-learning allows more effective interactions between the learners and their instructors using emails, discussion boards, and chat room. Teachers can receive more honest and deeper feedback that motivate them hard to reach students. Self-pacing for slow or quick learners reduces stress, increases satisfaction and information retention.

Blended learning approach helps students to manage the time better garnered a weighted mean of 3.25 and verbally interpreted as agree. Blended learning helps students to learn by being free of time and place limitations and according to their own learning speed. They can catch up with what they have missed. During face-to-face sessions, they find answers for disturbing points and clarify what they have not understood.

Lastly, on-line learning material can be accessed more effectively and rapidly after face-to-face discussion which garnered the lowest weighted mean of 3.23 and verbally interpreted as agree. Although students were introduced to different blended learning approach still accessing the online material after face-to-face discussion put it on the least item, which simply means even students agreed that actual teacher students' discussion during face-to-face interaction can be supplemented by on-line learning still it did not post mush importance, this is related to student unfamiliarity with the use of on-line learning approach.

It can be noticed that students appreciated if the discussion can be supplemented by on-line learning materials, students still preferred the traditional way of teaching thou they do not disregard the on-line learnings. On this note, it can be taken that the resources are always available for the students. The flexibility as one of the advantages of blended learning and the ability to access internet resources have a good impact for the students. This affirmed the study of Harris [16] that blended learning offers flexibility in terms of availability. In other words, it enables the student to access the materials from anywhere at any time. Moreover, access to global resources and materials meet the students' level of knowledge and interest. When technology is integrated into school lessons, learners are more likely to be interested in, focused on, and excited about the subjects they are studying. This engagement and interaction with the resources keeps students focused for longer periods than they would be with books or paper resources. This engagement also helps develop learning through exploration and research. In other words, the combination of online learning and face-to-face interaction enables the student to access the materials from anywhere at any time.

Table 4. *Difference of Responses on Practices in the implementation of LMS and Impact of blended learning approach to nursing student's academic Attitude When Grouped According to Year Level*

		N	Mean	F-value	p-value	Interpretation
Practices in the implementation of LMS	1st year	119	3.29	1.763	0.175	Not Significant
	3rd year	16	3.05			
	4th year	30	3.17			
Impact of blended learning approach to nursing student's academic attitude	1st year	119	3.35	8.833	0.000	Highly Significant
	3rd year	16	3.48			
	4th year	30	3.04			

Legend: Significant at p-value < 0.05

Table 4 presents the responses on the practices in the implementation of LMS and the impact of blended learning approach when grouped according to profile. It was observed that there was a significant difference on the impact of blended learning approach to nursing student's academic attitude since the obtained p-value of 0.000 was less than 0.05 alpha level. This means that the responses vary significantly and based on the post hoc test conducted, it was found out that 3rd year students experienced greater impact compared to the other group.

If students were to be observed regarding their age and year of study, it was found that these groups assigned different significance levels to quality characteristics and were not equally satisfied with the LMS. It was also found that there is a considerable statistical difference in the significance students gave to quality characteristics and in student satisfaction itself, according to how much time they spent using the Moodle application, which is also noted as one of the most important aspects of the research conducted [17].

CONCLUSION AND RECOMMENDATION

Based on the results of the study, the following are concluded: Among the blended learning approach, simulation is the most utilized and effective. The process and practices in the Learning Management System is implemented to enhance efficiency. Blended Learning approach has an impact to the students' academic attitude due to varied learning activities.

Based on the foregoing conclusions, the following are recommended: Different blended learning approaches must be utilized effectively and on-line approaches should be enhanced for the students to embrace fully the learning management system employed by the university. Students and teachers should make use of the LMS in all teaching methodologies so that they can improve their teaching techniques and support students in their learning paths paramount to success. An enhanced internet connection will facilitate the effective use of LMS.

REFERENCES

[1] Li, Z., Tsai, M. H., Tao, J., & Lorentz, C. (2014). Switching to blended learning: The impact on students' academic performance. *Journal of Nursing Education and Practice*, *4*(3), 245.

[2] Keshta, A. S., &Harb, I. I. (2013). The effectiveness of a blended learning program on developing Palestinian tenth graders' English writing skills. *Education Journal*, *2*(6), 208-221.

[3] Alammary, A., Sheard, J., & Carbone, A. (2014). Blended learning in higher education: Three different design approaches. *Australasian Journal of Educational Technology*, *30*(4).

[4] Kharb, P., Samanta, P. P., Jindal, M., & Singh, V. (2013). The learning styles and the preferred teaching—learning strategies of first year medical students. Journal of clinical and diagnostic research: JCDR, 7(6), 1089.

[5] Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European journal of education*, *48*(2), 311-325.

[6] Kable, A. K., Arthur, C., Levett-Jones, T., & Reid-Searl, K. (2013). Student evaluation of simulation in undergraduate nursing programs in Australia using quality indicators. *Nursing & health sciences*, *15*(2),

[7] Kemp, N., & Grieve, R. (2014). Face-to-face or face-to-screen? Undergraduates' opinions and test performance in classroom vs. online learning. *Frontiers in psychology*, 5, 1278.

[8] Tayem, Y. I. (2013). The impact of small group case-based learning on traditional pharmacology teaching. *Sultan Qaboos University Medical Journal*, *13*(1), 115.v

[9] Yoke, S. K., Rajendran, C. B., Sain, N., Kamaludin, P. N. H., Nawi, S. M., &Yusof, S. (2013). The Use of Online Corrective Feedback in Academic Writing by L1 Malay Learners. *English Language Teaching*, 6(12), 175-180

[10] Poon, J. (2013). Blended learning: An institutional approach for enhancing students' learning experiences. *Journal of online learning and teaching,* 9(2), 271-288.

[11] Buckland, P. D. (2015). *The unsuspected teachers: Environmental identity and sustainability education in the Anthropocene*. The Pennsylvania State University.

[12] Hilliard, A. T. (2015). Global Blended Learning Practices for Teaching and Learning, Leadership and Professional Development. *Journal of International Education Research*, *11*(3), 179-188.

[13] Anthony, E. (2019). (Blended) learning: How traditional best teaching practices impact blended elementary classrooms. *Journal of Online Learning Research*, *5*(1), 25-48.

[14] Hung, H. T. (2015). Flipping the classroom for English language learners to foster active learning. *Computer Assisted Language Learning*, *28*(1), 81-96.

[15] Tucker, C. R. (2012). *Blended learning in grades 4–12: Leveraging the power of technology to create student-centered classrooms*. Corwin Press.

[16] Harris, L. (2017). Blended learning benefits academic growth. *WRIT: Journal of First-Year Writing*, *1*(2), 6.

[17] Horvat, A., Dobrota, M., Krsmanovic, M., &Cudanov, M. (2015). Student perception of Moodle learning management system: a satisfaction and significance analysis. *Interactive Learning Environments*, *23*(4), 515-527.

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