

Perceived Value of Blackboard e-LeAP on the Net Generation Learners in Physical Therapy

Maria Teresita B. Dalusong¹*

*Corresponding author's email address: tetchiedalusong@gmail.com

¹Pamantasan ng Lungsod ng Maynila, Intramuros, Manila

RESEARCH ARTICLE

Abstract

Background: The blackboard e-Learning Access Program (Bb e-LeAP) is a learning management system, which consists of an integrated set of productivity, communication, assessment, and content management tools intended to enhance learning through the web. The Physical Therapy (PT) Department of the University of Santo Tomas (UST) utilizes this in all its subjects in order to supplement classroom learning of the digitally adept Net Generation (Net Gen).

Objective: This study aimed to describe how the UST PT Net Gen utilized the Bb e-LeAP in their learning activities. **Methodology:** A descriptive quantitative, cross-sectional online survey was employed in this study. A survey questionnaire was developed, which underwent pilot testing, reliability, and validity testing using SPSS. This was uploaded in the Bb e-LeAP course site with instructions and consent, and was used to collect data. A simple data analysis was made using excel spread sheet.

Results: More than 50% of the participants accessed Bb e-LeAP for preparing, understanding, and clarifying lessons. But, it was the least preferred among the different ways of learning. Though it has been utilized by PT Net Gen, it was accessed primarily for convenience in retrieving resources and least for learning process activities. A majority of the Net Gen still preferred learning through interaction, reading or highlighting printed materials, interactive multimedia and actual experience, though they are digitally adept.

Conclusion: The Bb e-LeAP is a useful tool that facilitated Net Gen's way of learning, such as preparing, understanding, and clarifying lessons. But just like other technologies, it was primarily used for convenience and secondary for learning process activities. The Bb-eLeAP is a medium used by Net Gen, which complements with their learning characteristics. But as a supplement to learning, it should incorporate learning activities that could promote higher order thinking among the Net Gen and that could maximize the features available in it.

Keywords: e-Learning, Blackboard, e-Learning management system, Net Generation, Physical Therapy

Introduction

The Net Generation (Net Gen) Learners, also called as "digital natives" [1] or "millennial learners" [2], are the largest and most diverse generation ever to attend college [3]. They were born from 1981 to 1994 in a society with advancing technology [4]. They are noticed to be digitally literate, always connected online, and have a higher sense of immediacy. When learning, they are multitaskers, experiential, sociable, team-oriented, visual and kinesthetic learners [1,4]. Their digital literacy is due to their early exposure, daily use, ease of access, and almost dependence on the rapid advancing and changing technology as part of their daily lives. Thus, they have a strong preference on the use of technology.

Technology becomes a medium that the Net Gen uses, both for educational purposes and communication. Majority of the students now own a computer or laptop, which is used for classroom activities, internet access, and document or email writing [5]. Computers are mostly used for academic activities, while presentation softwares are driven primarily by the students' school requirements [5]. The e-learning or e-course websites are used as helpful supplement in learning because they provide extra notes, lectures, pictures, and animation that are easily accessed and used for learning outside classroom hours [6]. Moreover, when it is designed well according to the principles of learning, it can achieve higher cognitive and critical thinking skills based on Blooms taxonomy [7]. The e-learning also complements the Net Gen's learning characteristics, such as being social or collaborative, experiential, and self-directed, which influence their preferred way of learning and construction of knowledge [8]. Thus, e-learning is found to be a useful supplement to traditional methods of teaching [9].

Over the past 20 years, most colleges and universities have prioritized and allotted budget to support the purchase, maintenance, and use of technology on campus to adapt to the learning characteristics of the Net Gen. But, less attention has been given on the achievement of the desired learning outcomes through the use of these technologies [10]. Though there are literatures that support the effectiveness and benefits of e-learning, there are also some pitfalls related to school management and students' use. Studies have shown the Net Gen's great acceptance [9], satisfaction and good/positive learning experience [11], and an enhanced participation and processing of learning [12] in the use of e-learning. This computer assisted instruction also becomes an effective teaching method for visual and kinesthetic learners like the Net Gen [13]. However, Kvavik (2005) found that "convenience with saving time" was the most cited perceived benefit on the use of technology in the

classroom [5]; and it was also concluded that e-learning was a great supplement for learning [6].

The University of Santo Tomas (UST) is one of the schools in the Philippines that has integrated e-learning, specifically "Blackboard® e-Learning Access Program (Bb e-LeAP)" (Figure 1). It was launched in August 2001 to supplement classroom teaching and cater to the learning characteristics of the Net Gen. It consists of an integrated set of productivity (web links, online games/activities, assignments), communication (e-mail, group pages, and discussion board), assessment and content management tools that allow instructors to design and present online instruction. After its launching, all colleges were encouraged to utilize Bb e-LeAP.

Every school year, students are given orientation on how to access and use e-LeAP at the start of the semester. They are given a personal password and a Bb e-LeAP account, which reflects all the subjects they are enrolled in. They can access this course site anytime and anywhere inside and outside lecture hours, as long as they have a gadget with internet or wifi connection.



Figure 1. UST Blackboard e-LeAP

Teachers, on the other hand, also undergo orientation and training on the use of Bb e-LeAP. Being the subject experts they update their course site by uploading course syllabus, lectures, notes, animations, games, links, and additional resources or websites that enhance the students' learning. The I.T. developers in the Education Technology Department are the ones who create, maintain, and manage the Bb e-LeAP.

Though the University highly recommends the use of Bb e-LeAP, face-to-face classroom interaction of teachers with the students is still regularly held with the same number of hours corresponding to the units of each subject. The teachers still do lecture-discussions, classroom activities, recitations, reporting, simulations, quizzes, and other classroom pedagogies during classroom contact with the students. Thus, the utilization of Bb e-LeAP, both by the teachers and students, is usually done outside classroom hours since its purpose is to complement in the students' learning.

The UST College of Rehabilitation Sciences' Physical Therapy Department started to fully implement the Bb e-LeAP in all its subjects during the academic year 2006 – 2007. Each subject has its own course site where the students can access the different features of the Bb e-LeAP (Table 1), such as announcements, course information, faculty information, class notes/lectures, web links related to the subject, assignments, online activities and exams, discussion board, and grade book.

UST availed Bb e-LeAP to provide web-enhancement learning in each course tailored to the learning characteristics of this generation. Its goal is to provide better learning among the students. This paper aimed to describe the way UST PT Net Gen utilizes the Bb e-LeAP in their way of learning. The results from this paper may help teachers determine the role of the Bb e-LeAP in the way students study and determine what and how the features of the Bb e-LeAP are commonly used by the Net Gen. These could help them devise or improve their teaching strategies that will maximize students' participation and higher cognitive learning with the use of technology or any learning management system. The I.T. Education Technology Department could also improve and create more features in the Bb e-LeAP that would promote not only usage but also learning of the Net Gen. The students' feedback and experiences on its use may help the university administration to reflect on the cost - benefits of the e-Learning Management System, which they invested for the students' learning.

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Feature	Use
Announcements	Disseminate information like changes in schedule, updates on contents and grades of students enrolled in the course
Course information	Familiarizes students to the course description, topic outline, schedule, required materials, evaluation procedures, grading system, and references
Faculty information	Shows the professional details and profile of the professor handling the subject, including contact data and consultation hours
Class notes	Handouts and PowerPoint lectures and other animations prepared by the faculty
Web links	Site recommended by the professor for the students to visit as an added aid in understanding some topics
Assignments	Take home activities that should be accomplished by the students at a certain period of time and are submitted online
Online activities	Web-based games and treasure hunts that train students to explore other resources offered by the world wide web in search for answer
Online examinations	Any format of test (multiple choices, fill in the blank, etc.) that are recorded and submitted back automatically to the professor
Discussion board	Venue for exchange of ideas of all users of the course site
Gradebook	Where students can view their scores in their quizzes, exams, projects, recitations, and assignments

The scope of this study was limited to UST's PT Net Gen learners, while the concept of e-learning was limited to the context and features of the Bb e-LeAP, which had some variations compared with other e-learning technologies used in other studies. The exposure of the Net Gen to the different learning technologies may have had influence on their way of learning. Thus, this should not be attributed to the use of the Bb e-LeAP alone. Moreover, the context of learning among the PT Net Gen with the use of the Bb e-LeAP was limited to accessing, logging in and downloading, printing, and reading; while the context of "way of learning" was limited to the students' way of preparing, recalling, processing, and understanding lessons with the presence and use of the Bb e-LeAP.

Methodology

Study Design and Sampling

A cross-sectional online survey was conducted in September 2010 to officially enrolled first year to fifth year Physical Therapy students of the University of Santo Tomas under the College of Rehabilitation Sciences.

A cluster random sampling method was used to obtain seven sections/clusters out of the 14 sections of PT from first to fifth year levels. Out of the 619 population of UST PT students, 369 from the selected clusters attempted to answer the online survey. But, only 353 students, which constituted 93% of the selected sample, were able to complete and submit the questionnaire correctly. This response rate is considered excellent based on the 60% -70% rate [14].

The researcher explained the purpose and benefits of the study before the participants answered the online survey. Confidentiality was also assured both verbally and through the written online instruction. They were ensured that their personal identity will not be asked nor be needed. Only their student numbers represented them. The participants were also instructed to read again the instructions and consent to proceed with the online survey. Should they agree to take part in the study, they were instructed to click "Begin" to proceed.

Instrumentation

Three existing questionnaires were used as references for developing the survey questionnaire. These were obtained from three previously conducted studies [11,15,16]. Some questions and statements were lifted from the existing questionnaires, while some questions were revised according to the objectives of the study. A focus group discussion was also administered to eight PT students from different year levels to obtain their perceptions on the use of the Bb e-LeAP in their way of learning.

From 184 items, the first draft was reduced to 122 items after it was aligned with the blueprint. This ensured alignment of questions and statements with the objectives of the study. The second draft of questionnaire was sent to content experts including two PT professors and one Educational Technology staff of e-LeAP for face validation and content validation. Slight revisions were made based on their suggestions.

The final survey questionnaire consisted of 122 items. It was divided into five parts. Part 1 obtained the demographics and technology background check. Part 2 was a 4-point Likert scale (1 = strongly disagree; 4 = strongly agree), which determined how the Net Gen study and learn. It also obtained the reason why they access the Bb e-LeAP. Part 3 determined their accessibility to technology and the place where they commonly access them. Part 4 determined the purpose why they use or access technology. Parts 2 to 4 made use of categorical variables as choices. Part 5 determined the usual time and day they accessed the Bb e-LeAP and the features they usually accessed. This part used checklist where subjects could tick more than one choice on every item.

The revised questionnaire underwent pilot testing to one class of PT with 48 students who were excluded from the actual subjects. For internal consistency testing, the Cronbach alpha value for the whole questionnaire containing 122 items was 0.721. This indicated unidimensionality of the items in the questionnaire, thereby representing construct validity (acceptable Cronbach alpha value is 0.7 or higher). A test - retest reliability was done to the same class who underwent pilot testing. Using Spearman rho correlation coefficient, an alpha value of 0.05 and below was obtained for 112 items out of the 122, which indicated significant correlation of the pilot subjects' first and second responses. The remaining 10 items had an alpha value greater than 0.05. The p-value correlation coefficient of these items was determined, which showed a fair to moderate correlation of the items. The SPSS was used in analyzing the data obtained from the pilot testing.

Data Collection Procedure

After reliability and validity testing of the questionnaire, the final version was deployed online in the Bb e-LeAP course site. It was made available & accessible to all officially enrolled UST Physical Therapy students through their personal account.

The randomly selected clusters/sections were given a schedule to answer the online survey question. The computer laboratory in the UST Medicine building was also provided to facilitate the students' answering of the online survey. Out of the seven sections, four managed to answer the online survey on the scheduled time in the computer lab. The rest of the three sections, due to conflict of schedule, managed to answer the online survey in their home or in any convenient place and time where they logged in their personal Bb e-LeAP account. An orientation on the objectives of the study and instructions on how to answer the survey was given to all the selected classes prior to answering them. After survey was completed, the Bb e-LeAP automatically summarized the results, which were ready for download and analysis.

Data Analysis

A percentage of frequency for each choice in every item was summarized by the Bb e-LeAP system, which the researcher downloaded and transferred in an excel file. The percentage numbers were converted to total number of responses, then the total percent of those who strongly agreed and agreed, as well as the total percent of those who disagreed and strongly disagreed, were obtained. The weighted mean score for each item was obtained to determine the dominant answer of the whole sample.

Results and Discussion

General Information About the Net Gen Learners

Out of 353 respondents, 45% were male and 55% were female. Ninety-six percent were Filipino, while only 3% were foreigners. All respondents were born within 1981 – 1994. Thus, they fall under the Net Gen [2,4,17]. Though they are digital natives [1], their digital literacy is not only due to early exposure and daily use. This study reveals that about 98% of them had computer subjects during high school and 21% took special courses in computer. They also had to learn the basic applications in schools that made them navigate through different technologies and made them more adept in its use.

Utilization of UST's Bb e-LeAP

Days and time the Bbe-LeAP is accessed

Ninety-eight percent of the UST PT Net Gen accessed Bb e-LeAP. Though 81% of them agreed to have accessed Bb e-LeAP with ease, 15% claimed to have limited or inconvenient access. This was due to internet connection problem and system break downs reported by Lipardo et al. [11]. Since classroom contact was still regularly held, the Bb e-LeAP was mostly accessed outside classroom schedule; majority in their homes (56%); around 2–3 times a week; on Saturdays (74%), Sundays (60%), and Fridays (53%) at around 6 PM – 12 midnight (85%), followed by 1 to 5 PM (31%), 12 midnight to 6 AM (17%), for 15 to 20 minutes. A similar result came out with the study made by Lipardo *et al.* [11] on Bb e-LeAP.

Frequently accessed features of Blackboard e-LeAP, purposes why it is accessed, and comparison with other Learning Management System

The top six Bb e-LeAP features (Figure 2) frequently accessed by the respondents were: Class notes (91%), Grade book (84%), Announcements (82%), Online Exams (73%), Discussion Board (68%), and Course Evaluation (61%). These results were consistent with the findings on the "Purpose why the Net Gen accessed the Bb e-LeAP" (Table 2). The three topmost agreed reasons were: 1) it provides easy access to my scores (92%), 2) it facilitates in monitoring my status in the subject (90%), and 3) it saves time and provides convenience in accessing announcements, downloading notes and lectures (86%). The access of the Bb e-LeAP for the purpose of improving in understanding of the course was also agreed by 62% of the respondents, but was least among the choices.

The results from this study were consistent with the study of Kvavik [5] about "Convenience, Communications, and Control: How Students Use Technology" and the study of Lipardo *et al.* [11] about the "Underlying Dimensions of Utilization of E-Learning among University of Santo Tomas Physical Therapy Students." They concluded that Net Gen had a positive learning experience in the use of e-learning but these were associated with convenience of access to features, such as scores, notes or handouts, announcements, online exam, etc. [5,11]. Table 3 shows the comparison of the features accessed by the Net Gen from the result of this study with other previous studies.

Based from these comparisons, it is evident that most of the respondents accessed their e-learning course site



Figure 2. Blackboard e-LeAP features frequently accessed by the PT Net Gen

I access the Bb e-LeAP because it:	Percentage of strongly agree	Percentage of agree	Percentage of disagree	Percentage of strongly disagree	Weighted mean score*
Provides an easy access to my scores	47%	45%	4%	3%	3.38
Facilitates in monitoring my status in the subject	39%	52%	7%	2%	3.27
Saves time and provides more convenience in accessing announcements, downloading notes and lectures	32%	55%	9%	4%	3.15
Facilitates communication between teachers and students	16%	58%	20%	5%	2.86
Has improved my learning (understanding the subject matter)	9%	53%	31%	7%	2.65
Facilitates communication among us students	10%	35%	43%	13%	2.42

*1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

primarily for the convenience of downloading the notes or updating with announcement or knowing one's grade status. It is used secondarily for learning achieved through evaluation, feedback, discussion, or online exam.

These results are useful feedback for teachers and for school administrators who invested on learning management system with the purpose of supplementing classroom teaching and catering the learning needs of the Net Gen. With regards to the days and time the Bb e-LeAP is accessed, the faculty members could be more considerate when giving deadlines for submission of online activities. It may be based from the usual days (Saturday, Sunday, Friday) and time (evening) that students access it. The duration of use of the Bb e-LeAP may also be considered when providing online activities that would ensure supplemental learning within the students' affordable time.

Kvavik [5]	Lipardo [11]	Dalusong (this study)
Syllabus (95%)	Gradebook (90%)	Class notes or handouts (91%)
Online reading/Class notes (94%)	Class notes/handouts (85%)	Gradebook (84%)
Grades (89.4%)	Course evaluation (70%)	Announcements (82%)
Sample exam/activities (88.8%)	Announcements (68%)	Online exam (73%)
Assignments (78.5%)	Online exam (55%)	Discussion board (68%)
Online discussion (74.2%)		Course evaluation (61%)
Online materials (73.4%)		
Faculty feedback (71.8)		
Online exams (70%)		

Table 3. Comparison of the learning management system features accessed by 50% of the Net Gen learners

Since the course site is primarily used for convenience, the I.T. management could revisit and enhance the features that will promote higher order thinking skills through online activities and case problems. They may also provide training for teachers and orientation for students to maximize the features available in the program.

Utilization of the Bb-eLeAP in Net Gen's way of preparingforthelesson

Seventy-seven percent of the respondents prepared for class by reading the topics using their text book or printed class notes or handouts; while, about 64% percent agreed that they access their Bb e-LeAP account to check for announcements, syllabus, time table, and class notes as a way to prepare for their lesson. Since access to the Bb e-LeAP was easy and the materials were readily downloadable, it somehow facilitated the way the respondents prepared for class. They did not only download but they also printed these materials for better reading and compilation of notes.

These findings support one of the purposes why the participants access the Bb-eLeAP (Table 2), which is specifically to "save time and provide convenience in accessing announcements, downloading notes and lectures." It is also consistent with the most frequent feature accessed (Figure 2), which is "class notes or handouts." Thus, this further confirms Kvavik's and Lipardo *et al.*'s findings on the convenience that this program provides in order to prepare for the lessons [5, 11]. The Bb e-LeAP is a medium utilized by the participants in order to help them prepare for their lessons because of the availability and accessibility of resources found in it.

Net Gen's way of recalling their lessons

Ninety-three percent of the respondents agreed that highlighting important points in the book or notes made them recall their lessons better. This technique provides a visual impact and significant effect to long term memory [18]. Seventy-five percent said that retyping/rewriting notes and summarizing what they read from the book also helped them recall their lessons. This was due to the active processing of thinking, filtering, selecting, organizing, and integrating information learned according to cognitive theory [8]. Seventy percent of the respondents agreed that access to the Bb e-LeAP also helped them recall their lessons; however, it was the last among the three choices. Its access facilitated the recalling of the lessons by downloading and reading the available online notes, but this activity did not necessarily promote higher order thinking nor active learning process.

Net Gen's way of processing and understanding lessons better

Known to be visual learners [1,4], 95% of the respondents agreed to understand and process their lessons well when visual graphics/multimedia/pictures/ diagrams/animations were present in the PowerPoint presentation, rather than pure texts (Table 4). Some studies reveal that these mediums of instruction increased the students' compliance to do homework, increased their post-test scores [19], and kept the Net Gen's attention [20]. But, it was also recommended that its use should be kept short and alternating with a diverse structure [20] in order to sustain their attention.

Doing, acting, or experiencing through experiments/ practical application or demonstration and practice, rather than by just listening or reading (93%) and taking down notes (91%), were also agreed by the respondents as a way to process and understand their lessons. This was due to their experiential way of learning [1,4]. Moreover, the Net Gen are challenged to find results and arrive at their own conclusion [1]. They construct meaning and build knowledge to what they do or experience [20]. Thus, lessons last longer and are better understood when they reach them through relevant and meaningful steps. Being social learners, the Net Gen also processed and understood lessons better through group interactions (82%) and through lectures - discussions (81%), rather than by reading alone.

Among the different ways of processing/understanding the lessons, the utilization of the e-LeAP was the option least agreed upon by the respondents (70%). Though they agreed that the Bb e-LeAP helped them process and understand their lesson, their perception of learning with its use might have been limited to accessing and downloading notes or lectures and other resources, which did not promote learning process but rather convenience.

Net Gen's way of clarifying the lessons

Ninety-five percent of the respondents preferred to consult or discuss with their classmates face to face when trying to understand and clarify lessons; while 87% also

preferred to consult their professor/s face to face at school (Table 5). Even if they did have ease of access to technology, majority of the respondents still preferred actual conversation from real people and interaction with classmates or peers when clarifying lessons [17,20]. Oblinger also supports that the Net Gen find peers more credible than teachers when it comes to determining what is worth paying attention to [4]. This confirms that the Net Gen find better learning through social or peer interaction [4].

The "consultation of the Net Gen among classmates through online, such as email, blogs, instant message, and discussion board" ranked third (78%). This was due to ease of access to social media, especially if there was no other way to meet the professor or classmates face to face. Accessing the Bb e-LeAP, as a way for the Net Gen to clarify their lessons, was also agreed upon by 63% of the respondents due to the features, such as discussion board and availability of class notes and lectures or other links, that may be used by the students. However, it ranked as the least agreed among the choices when clarifying their lessons probably due to other technologies likes cellphones and social media, which are readily available.

Results from the Net Gen's way of learning show that the Bb e-LeAP has been a useful tool for preparing, recalling, understanding, and clarifying the lessons; however, it was

I get to process & understand my lessons better:	Percentage of strongly agree	Percentage of agree	Percentage of disagree	Percentage of strongly disagree	Weighted mean score*
With visual graphics/multimedia/ pictures/diagrams/animations in the PowerPoint, rather than pure texts	50%	45%	2%	2%	3.44
By doing, acting, or experiencing them through experiments/practical application or demonstration and practice than by just listening or reading	48%	45%	5%	2%	3.40
By taking down notes	47%	44%	6%	2%	3.37
When interacting, working, discussing in groups than individual	31%	51%	15%	3%	3.11
By listening to the lectures and discussions than reading	21%	61%	16%	2%	3.00
By utilizing (reading, downloading, answering, analyzing and exploring) the resources in the Blackboard e-LeAP	10%	60%	23%	5%	2.75

Table 4. Net Gen's way of processing & understanding lessons better

*1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

l seek to understand or clarify my lessons better after class/ discussion by:	Percentage of strongly agree	Percentage of agree	Percentage of disagree	Percentage of strongly disagree	Weighted mean score*
Consulting/discussing with my classmates (face to face or group discussion)	47%	48%	3%	1%	3.42
Consulting my professor/s at school	26%	61%	11%	2%	3.12
Consulting my classmates online: email, blogs, instant message, discussion board	19%	58%	17%	4%	2.93
Searching other websites, information or videos/animation through the internet	15%	55%	27%	3%	2.88
Accessing the Blackboard e-LeAP (notes, video and animation supplement, online activities and weblinks, etc.)	7%	56%	30%	5%	2.66
Consulting my professor online: through email, blogs, instant message, discussion board	7%	31%	48%	13%	2.33

Table 5. Net Gen's way of clarifying the lessons

*1 = strongly disagree 2 = disagre 3 = agree 4 = strongly agree

the least preferred among the different options, probably because other dominant learning characteristics of the Net Gen surfaced in the way they learn. This confirms how Oblinger described this generation as digitally literate, visual, kinesthetic or experiential, and interactive or social learners [4]. Though the Bb e-LeAP was found helpful, the respondents' perception of the use of the program was limited to accessing and downloading notes or lectures and other resources, which facilitated the things they needed; but, it never actually promoted learning process. Just like any other technology, the Bb-eLeAP is a medium used by the Net Gen, which enhances and complements with their learning characteristics. This confirmed some studies that revealed Net Gen's preference for "moderate" use of I.T. when learning their courses [5, 15]. Being social and interactive learners, they viewed experts and committed faculty members as key ingredients to learning success, but they also expected them to be knowledgeable and skillful in the use of technology to better communicate their expertise. A balance integration of technology, interactivity, and lecture is a much-preferred strategy of the Net Gen [21]. In the study of Ipsos MORI about the expectations and attitudes on the use of new technology, they highlighted that students did not like using technology for technology's sake because they wanted to see a clear educational or social value in using it [22].

Since the purpose of the Bb e-LeAP is to supplement classroom learning, the school administration may want to look into ways on how to improve or incorporate active learning and higher order thinking with its use, in order to promote better understanding and learning process, more than just being a mere tool for convenience. This will depend greatly on the collaboration between the faculty and the I.T. staff of the university. The faculty's commitment and advocacy of its use would greatly affect the students' usage of the available Learning Management System. Moreover, faculty training is highly encouraged to maximize the use of the Bb e -LeAP. Further studies may also be done on specific online features that promote active learning process and its effect on the students' performance outcomes in order to determine its effectivity.

Conclusion

The PT Net Gen, also known as "digital natives," are adept in the use of technology. This ease of access to technology played a role in facilitating learning activities. The Bb e-LeAP, in particular, had been a useful tool that facilitated the Net Gen's way of learning, such as preparing, recalling, understanding, and clarifying lessons. But, just like other technologies, it was primarily used for convenience and secondarily for learning process activities. The Bb-eLeAP is a medium used by the Net Gen that complements with their learning characteristics. Being used to technology, the Net Gen's usage of the Bb e-LeAP was something that they adapted to their usual learning preferences and activities like surfing, googling, chatting, etc. But, as a supplement to learning, it should incorporate learning activities that could maximize its features and promote better learning among the Net Gen.

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