Ubiquitous Learning, Innovative Teaching: Students' Use and Perception of Virtual Learning Environment (VLE)

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ABSTRACT

This study seeks to examine the use and perception of university students of Schoolbook, the Virtual Learning Environment (VLE) of De La Salle University-Dasmarinas, Cavite, Philippines. Using a survey, focus group discussions, and in-depth interviews, students enrolled in blended classes were asked their views on the affordances of Schoolbook and the capability of the faculty members in using it. Several findings were notable. Students indicate that learning transpires in Schoolbook, albeit, not as much as in a traditional learning environment. The discourses likewise reveal an acquisition of competencies but at varying levels because both students and teachers differ in their skillfulness in the use of new applications that Schoolbook requires. The study recommends that schools utilizing VLE must consider the preparedness of the teachers and students in the use of a virtual platform as much as the infrastructural requisites of internet speed and reliability.

Keywords: Blended/Flipped Classes, Virtual Learning Environment (VLE), Learning Management Systems (LMS)

Background of the study

Discussion on the merits and demerits of being in an e-class is common among students of blended classes in De la Salle University—Dasmariñas (DLSU-D)*. A considerable number of DLSU-D faculty members have adopted blended classes, widely understood as classes that incorporate both the traditional on-site (face-to-face) instruction and emergent online (virtual) learning sessions. Often, these classes take the form of flipped classrooms where students learn the contents online while time in the classroom is spent on homework discussions or problem-solving with teacher's assistance (van Vliet, Winnips, & Brouwer, 2015; Horn, 2013; O'Flaherty & Phillips, 2015; Garrison & Kanuka, 2004).

The online classes are done in a Virtual Learning Environment (VLE), also called Learning Management System (LMS). It is an integrated set of online tools, databases, and online-managed resources that exist as a coherent system functioning collectively in support of education (Cook & Ellaway, 2015).

DLSU-D's VLE platform is known as the Schoolbook (SB). It is used to create and deliver content, provide an avenue for student participation, and assess student performance. It is a tool to enrich the learning experience and strengthen student-teacher and student-student exchanges beyond the classroom.

Students appreciate the expediency of SB because learning to them becomes ubiquitous and 'is more convenient, only a phone is needed to participate in a class or do assessments', it is 'high tech' and 'it lessens transportation expenses because you don't have to come to school'. On the other hand, some students voice out their complaints ranging from 'if the internet is slow or down, you cannot do any assessment, or even just read'; to the more substantial ones: 'teachers upload too many materials, it's still different when a teacher is in front explaining'; and 'the assessments could be done by others'.

Faculty members resonate with the student's views on the use of technology in learning and teaching. Those who support the use of SB extol its affordances: multiplicity of materials that can be used, transparency of grading, convenience in class schedule, and being at par with big universities here and abroad, among others. Others noticeably express disapproval for virtual learning in general, citing very limited teacher-student and student-student engagements in the impersonal setting.

To the administrators, the subscription to a multi-million virtual learning tool and the consequent directive requiring its use is an acknowledgment of the crucial role that technology and the internet play in promoting teaching efficiency, in augmenting the limited resource of teachers, and in globalizing the university's instruction.

The above situations may have captured superficially the notions of the different stakeholders—students, teachers, and administrators—in the university regarding the use of the platform but a deeper look at VLE in general, and SB in particular, is crucial to revealing how pedagogy in the

university has been and is continually changed by its affordances. This ought to be solicited from the ultimate beneficiary of learning technology, the students. After all, aiming for efficiency in teaching should be validated by the efficiency of learning on the part of the students.

Literature Review

Today's age of competition is the period of 'informational society' marked by modern technology and digital connectivity (Giroux, Flecha, Freire, Macedo, & Castells, 1994). The flow of information and their connectivities underpin the re/organization of all aspects of human life, from the biological to the social, to the economic and technological, and even to the foundations of the networked space in education (Selwyn in Apple, Ball, & Gandin, 2010; Luke 2006). In the area of education, Jarvis (2000) argues that schools need to continually adapt to find their place in the emerging learning society. It demands the need 'to be taught or to learn, new information and acquire new knowledge and skill to keep abreast with the changes' (p. 75) in society.

Germane to globalization's thrust of restructuring educational priorities, skills, and competencies lamented by Gutek (2009), university administrators encourage both faculty and students to become globally competitive—to adapt, to continuously learn, and to acquire skills needed for the 21st-century education. This movement means a shift from traditional, classroom-based teaching-learning to ubiquitous e-learning, using VLE. Indeed, the use of new educational technology is the common response of the universities to the internationalization forces of globalization in education (Jarvis, 2000).

VLE is a platform to create and deliver content, monitor student participation, and assess student performance (Weller, 2007; Weiss, 2006). It is often understood as 'electronic information system (IS) for the full administrative and didactical support of learning processes in (higher) education(al) and vocational training settings' (Muller, 2012, p.1). It is a learning setting mediated by computers and digital technologies. The use of VLE is a relatively recent phenomenon and is driven by the increasing ubiquity of computer-based activities in education, the ever-growing pressures for increasing the quantity and quality of educational efficiency and student support, and the technical opportunities provided by increasing developed web technologies.

VLE, with its limitless potential, is seen as the fitting platform to be in synch in this digital age, especially with learners who are considered digital natives. VLE is now increasingly used in schools, specifically for higher education (Franetovic, 2011; Bayne, 2008; Weller, 2007). However, the biggest criticism of VLE is expressed by Conole (2004): although technology is now common place in most higher education institutions there is little evidence of significant impact on teaching practices, and 'e-learning is still marginal in the lives of most academics' (p. 476). This is echoed by Brown, et al. (2006) who concluded that the transformative impact of VLE on instructional practices has yet to be realized. Rienties (2016) posits that although VLE

utilization may have been exponential, many teachers use these VLEs as a simple repository of materials, such as presentation files and reading lists for students. Hence, pedagogy has remained tied to the traditional face-to-face teaching method. A large body of research demonstrated that many teachers use only a minimum of the affordances of VLEs (Rienties et al., 2012; Jenkins, Browne, Walker, & Hewitt, 2010; Sanchez-Franco, 2010; Jimoyiannis & Komis, 2007; Browne et al., 2006).

While debates on the use of technology in learning being innovative or disruptive continue, Conole, De Laat, Dillon, & Darby (2008) suggested the need to explore students' experience and actual use of e-learning. Their findings revealed that the use of technology was not just simply an 'add-on' to students' learning but central to how they learn. The study concluded that technology opened up a variety of possibilities to engage students in a range of different learning processes.

The framework of the study

The technological imperative in the field of higher education has compelled the utilization of e-learning via virtual learning environments. This study is premised on e-learning as fundamentally about learning, not technology. The use of e-learning in itself does not constitute an enhancement of the quality of teaching and learning, but it can potentially facilitate and enable such enrichment. Technology is seen as a useful tool to transform higher education into a more student-focused and flexible system whereby technology-enhanced learning is envisioned to become a normal part of the mainstream provision, processes, and practice, rather than being distinct from other forms of learning and teaching. In other words, technology made learning opportunities ubiquitously (Burbules, 2011).

As the university's VLE, SB contains an integrated set of tools, databases, and other resources, all managed online as a coherent system. The complex system's parts can be simplified into three major components: people, technologies, and services. The current study resonates with the conclusion of Aparicio, Bacao, and Oliveira (2015) who maintain that any e-learning system would contain the three parts and that their interdependence is established.

*People***.** The end-user for any VLE are the learners. It is important to note that as a complex system of online learning and teaching tools, VLE involves other stakeholders: instructors, educational support staff such as instructional and web designers, and other IT personnel. However, attention is more focused on teachers as facilitators of the learning environment because how they utilize SB determines what the students will learn. Since the goal of the current investigation is to generate an understanding of general perceptions about SB rather than articulate empirical claims about their value, data were collected from a sample of learners, specifically college students of DLSUD, the primary beneficiaries of the VLE.

*Technologies***.** Through technologies, SB's affordances support digitally-enhanced content, enable communication between and amongst learners and teachers, and provide collaboration tools. Moreover, as an e-learning system, SB integrates all the activities corresponding to pedagogical models and instructional strategies. In particular, the study is focused on the infrastructures that make up the technology such as but not limited to the availability of computers and internet connectivity in the university.

*Services***.** As an e-learning system, SB provides services according to the specified strategies for activities aligned with the e-learning pedagogical models and instructional strategies. These are similar to the concept of affordances. Hence, a thorough description of the affordances of SB is essential in this study. Services are considered here as the main output as they operationalize instructional strategies and several pedagogical models.

The study assumes that for these affordances to enrich the teaching and learning processes, the students must possess the understanding and the skills to utilize these technologically enhanced materials.

The relationship of the three interdependent components of DLSUD's VLE is summarized in the diagram below.

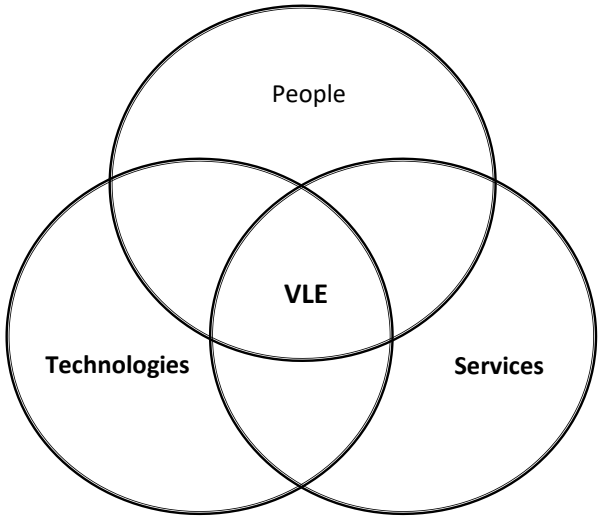

Figure 1: The framework of the study

The research questions

The study investigated VLE as contextualized in De la Salle University-Dasmariñas (DLSU-D), Cavite, Philippines. In its nascent stage, the need to determine how VLE is perceived, understood, and implemented cannot be overlooked. Specifically, the paper sought to find out the affordances that VLE provides to the realm of e-learning. Further, it attempted to uncover how the stakeholders: primarily the students and the administrators, perceived and understood the use

of technology in learning and instruction. It argued, that VLE, notwithstanding its use and practice, is central to how students learn in the 21st century in providing them possibilities to engage in different learning processes afforded by the use of technology.

The findings served as an important basis for enhancing VLE in the university, given the school's mandate to fully embrace it.

Methodology

The study investigated the students' views on the efficiency of SB, the university's VLE platform. In particular, it looks into SB functions that students use, the benefits they derive from their usage, the inadequacies and problems they encountered, and their take on the readiness of their professors to utilize a new learning tool.

To gather data, two methods were used: survey and focus group discussion. For the survey, a 20-item Likert-scaled questionnaire was used. It underwent content validation from faculty members, an administrator, and students. The tool covered the extent of the students' use, access, information, assessment, outcome, and their views on their teachers' and classmates' use of SB. The questionnaire was then pilot-tested to 10 students enrolled in blended classes.

For the FGD, a 12-guide question set was formulated to dig more into the perception of the students and triangulate the results of the survey questionnaire. The questions asked delved on the following: 1. Familiarity with the use of schoolbook in one's course; 2. Knowledge of SB affordances; 3. Ease of access of SB within DLSU-D; 4. Frequency of access and purpose of logging in to SB; 5. Ease of access outside of DLSU-D; 6 Practical advantages of using SB; 7. Academic advantages of SB; 8. Disadvantages of SB; 9. SB and role of teachers; 10. How blended classes are managed by teachers? 11. Comparison between blended and face-to-face classes; and 12. Future of VLE technology in education.

Data gathered from above were supplemented by an in-depth interview with administrators directly managing SB in DLSU-D: the Vice Chancellor for Academics and Research (VCAR) and the Director of the Center for Innovative Learning Program (CILP) that takes charge of providing technologically driven learning and instruction for the faculty and students.

Questions asked included the following areas: Rationale of the university for investing in a VLE; 2. Cost and benefit of adopting SB; 3. Views on how students receive SB; 4. Views on how the faculty receive SB; 5. Faculty capability on SB usage; 6. How SB is accommodated in DLSU-D's culture; 7. Problems and challenges on SB usage, and 8. The future of SB in DLSU-D.

A hundred students enrolled in blended classes and the Academy of Continuing Education (ACE), a fully online program of the university, were conveniently chosen. They were sent a survey questionnaire created through a google form. Moreover, two FGDs were done. For each of the two FGDs, there were 7 students enrolled in blended classes who participated.

Affordances of Schoolbook

SB offers affordances to both the teachers and students. Some of these include a *Course List* to view what courses one is teaching (for teachers) or is enrolled in (for students); a *Group* to create groups and members with dedicated dashboard and feed; *Dashboard* to give the user a snapshot of important things in SB such as list of subjects, to-do's, announcement, today's lesson, upcoming assessments, school calendar, and links; *News* to post, pinned, automatically send to all enrolled users; *Resources* to upload links, files, and the like; *Report* to provide overview of all whole SB including history; *Messages* to providing a built-in messaging app to communicate with teachers and students; *Calendar* to automatically plot all deadlines of needed assessments; *Assessments* to evaluate students of their performance, i.e. quiz, essay, survey, debate, discussion, team assignment, or offline uploading of points; *Gradebook* to serve as a class record and configurable tool in automatically computing running performance/grades; *Mastery* to tabulate the level of proficiency of the students based on their scores per assessment; *Students*/*Professors* to provide the names and the links if one needs to reach out to them; *Games* to gamify learning in SB with assigned points, ranks, badges, certificates, etc; *Attendance* to provide a viewable report of the number of times of presence, tardiness, or absence of students; *Forum* to provide a platform for teachers and students to discuss, comment, or suggest about anything the topic in forum provides; and *Wiki* to collaboratively post and modify contents serving as a database for everyone in the class to post, edit, or expound a topic.

Perceptions on Schoolbook

In today's technologically advanced age, the field of education can provide a plethora of excellent online tools that can enrich conventional classroom instruction. In the university, the SB offers a vast array of affordances designed to enhance teaching to consequently optimize students learning. To determine this, the study solicited the views of students, the ultimate beneficiaries of any VLE.

*Knowledge***.** All the respondents are knowledgeable that SB is used in DLSU-D. In terms of usage, they strongly agreed to the statement "I know how to use schoolbook in my subjects" ($\bar{x}$ = 4.48). This is despite having no official orientation about this VLE; they learned how to navigate SB through their initiative, a hands-on trial, and error method as soon as their professors gave them the login access code for their subjects.

Nonetheless, engineering students professed that in their major subjects, teachers seldom utilize SB claiming that it cannot suffice:

> 'As engineering students, we agree that schoolbook cannot be used in our major subjects because teachers have to see us draw our plates, and while we are drawing, we can ask our teacher right there, so we know how to draw or our drawings will be corrected as soon as mistakes are committed'.

Students also concurred that SB should be minimally used in Math and other skills-based subjects because teacher supervision is needed and besides, symbols and formulas cannot be easily encoded in SB.

*Usage***.** On average, students stay logged in to Schoolbook for less than 3 hours spread over in a week ($\bar{x}$=140 minutes, mode/median = 120 minutes). Students explain why they use Schoolbook sparingly: logging in takes time especially if the internet connection is slow if they can't log in the first try, they don't bother repeating, and after downloading the lessons, they log out right away because they can study at their convenience using the file they downloaded. Still, the most important cause for short log in time is shared by one participant during the FGD, to which everyone agreed:

> 'When you go online, you are tempted to open other sites, and teenagers like me have many social media accounts. So, when I log in to my schoolbook account, I also log in to my social media accounts, and before you know it, I've spent so much time on Facebook especially. Because I haven't clicked any button after logging in to my schoolbook account, by then, it has timed out that I have to login again, which I usually no longer do'.

When asked what they mostly do when they login to their account in SB, it is mainly to download lessons/notes posted by the professor (87%) and to answer assessments (88%).

This dependence on the professor was further explained during the FGD: students claim that tests most often are taken from PowerPoint presentations uploaded by teachers, and not from long reading materials mostly uploaded too, where the presentations were based on. Except for a few teachers who give creative assessments using gamification, most teachers give the conventional tests which can be easily answered by the student because notes may be simultaneously opened in other windows.

*Communication***.** When asked whether SB should be used to communicate to their teachers regarding questions or concerns they might have, students have a dissenting opinion as to the table below shows.

Table 1: Should schoolbook be used to communicate with professors regarding any concern?

Response	Frequency	Percent
Strongly Disagree	5	5.0
Disagree	23	23.0
Agree	23	23.0
Strongly Agree	17	17.0
Don't know	32	32.0
Total	100	100.0

Students voiced complaints regarding non-reply to messages they sent to teachers. One student exclaimed the sentiment of the FGD participants:

> 'Schoolbook has messaging feature, and we think, this is the way to reach your professor whenever you have a concern. Sadly, very few respond to messages, and mostly, it's after three days'.

The CILP director noted this concern saying that,

> 'We know there are teachers whose unread messages and notifications reach up to 200! This defeats one very important purpose of having a VLE, and that is, the convenience of communication between teachers and students'.

As for student-to-student communication, the same difference of opinion can be gleaned. When students were asked regarding the use of the schoolbook to communicate with classmates with school-related matters, no consensus is noted.

FGD results explain why student-student communication is not usually done in SB. If it is a personal message, students prefer social media sites, like Messenger or Viber. For project-related matters, which are done by the group, they mostly form Facebook groups and have their discussion there because group messaging in SB is not possible. Nonetheless, students assert that if their professors require that discussion thread be posted in SB, then they are forced to comment.

*Peers***.** Students were also asked how their classmates fare in terms of the use of SB. Of the hundred respondents, 74% agreed that their classmates are very good at using SB. They explained that it is very easy and convenient to use (85%) and it can be accessed anywhere and anytime (60%). One student reiterated the claim of many young people, 'We are millennials. We are used to technology. We find it 'naturally easy' to use computers and their programs or logging on to the www'.

*Access***.** The students however qualified their answer expressing negative responses when asked whether ease of access to SB is experienced within the campus. As Figure 1 shows, not everyone agreed that within the DLSU-D premises, accessing it is easy; a considerable number of students find the internet inside DLSU-D a problem.

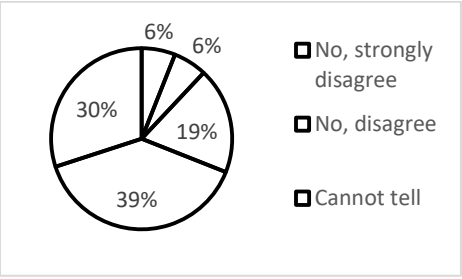

Figure 1: Can you access it easily within DLSU-D?

Students claimed that accessing schoolbooks in their homes is easier (X=4.40) compared to when they are in university ($\bar{x}$ =3.81). Furthermore, the statement "DLSU-D's internet connection allows fast and efficient use of schoolbook" received a $\bar{x}$ of 3.06 signifying that students indeed find it problematic to access SB within DLSU-D.

*Teachers***.** Students were also asked to rate their professors in how well they use SB. Only 33% strongly agreed and 41% agreed that their professors are very good at using the schoolbook, while the remaining 26% rated their professors' use of the schoolbook negatively. In the FGD, students think that many teachers use the schoolbook barely, and rarely, too.

Dr. Marco Saez, the university's Assistant Vice Chancellor for Academic and Research (AVCAR), affirms that DLSU-D has yet to maximize the capability of SB, recognizing the need for training for faculty members. Roland Ruben, the CILP director resonates with this observation stating that,

> 'Some teachers think that we just upload lessons in the schoolbook and that's it!. It's wrong. Just as we engage our students in face-to-face classes we must also engage our students in our e-classes'.

However, the students do not generally perceive the teachers as inept. When asked what their professors most often do in SB or the features they use, the following common VLE tasks were mentioned during the focus group discussions: upload files, create announcements and give assessments. For the CILP director, these are not enough because the affordances of the schoolbook are vast. He further explains that the goal is to be able to fully take advantage of what the schoolbook is capable of, and it is the teacher/professor who needs to do this. He explains that,

> 'The teacher who has maximized the capabilities of schoolbook is someone who does not stop discovering. One who is not contented with uploading lesson materials and giving objective assessment types. He is someone who has the student in mind, he is the guide of the student in this virtual environment. He gives introductions to uploaded lesson materials, gives clear instructions in the assessments, and gives immediate feedback'.

*Engagement***.** Students also agreed that the fun part, such as wikis and gamification are seldom used as few teachers incorporate them in their lessons or assessments. Some students lament that in the end, SB seems like a drop box for assignments and projects.

When asked whether the use of SB has improved their interest and engagement in learning, a mere 27% strongly agreed, and 33 % agreed, while the rest of the 40% thought otherwise. Furthermore, when it comes to the ability of the schoolbook to reduce dependence on teachers given that they think the schoolbook has given them access to a lot of materials (51%), 56% said it had reduced, while a considerable number said (44%) it has not.

*Performance***.** In the end, it is very important to ask the students if SB has been instrumental in improving their performance. There seems to be ambivalence on the part of the students despite getting a $\bar{x}$ of 3.88, as shown in the chart below.

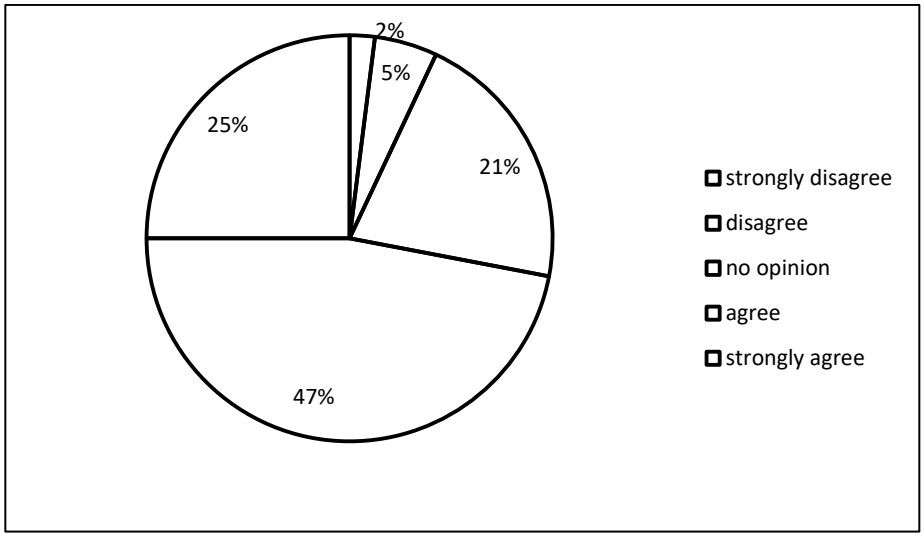

Figure 3: Has Schoolbook improved your performance?

Ebbs and Flows of SB

When asked to comment on the best features that SB has afforded them, the following sums up the major themes gleaned from the students. First, VLE provided *convenience* to them. This learning tool afforded them easy access to lessons and assessments anytime, anywhere as long as there is the internet. It also allows them to self-study or does an advanced study, as it allows retrieval of past notes even on completed sections/courses. Second, VLE provided them *efficiency*. It substantially decreased school-related expenses as paper submissions became paperless aside from cutting transportation costs. Technology has enriched their learning as more and enhanced resources and learning materials are available online. Third, VLE offered *transparency* in grades and assessments as virtually all of the affordances are right before their eyes and at the tips of their fingertips should they want to know how they fared in classes, without the need to look for the professors and their class records.

However, students lamented that they disapprove of the use of SB as it requires real *accessibility*. To make the most of online tools, it required fast and reliable internet. This is barely experienced on the campus nor the country in general. Access is also at stake because of the program interface and bugs. Many had problems with log-in delays; no copy-paste features, no instant messaging reliability, and no pop-ups, aside from having no stable app for mobile gadgets. Secondly, teachers need more *proficiency* in utilizing VLE. Teachers made the use of technology difficult for them. Students observed and noted that many teachers' instructions are confusing,

they were given inadequate time allotment for assessments, too many assessments, aside from their teachers' limited knowledge of SB's features.

Discussion

Despite the affordances, there is still a lot of resistance to the use of SB. Although the administration, through CILP, wants faculty members to go blended, a few have been doing it. The argument against blended courses is mainly the lack of student-teacher and student-student engagements that traditional classroom-based, face-to-face instruction affords. Such claim mostly stems from faculty members. On the part of the students, a study has yet to be undertaken to validate their claims that they learn less from blended classes compared to traditional classes.

Although the reception for SB is not altogether positive, students overwhelmingly think SB should not be scrapped. Web presence is preferred by most because it does not rely on e-class 50% of the time which students note are not utilized as they should be. They assert that e-classes have become an excuse for some teachers to be absent in class. They maintained that SB cannot replace the learning that happens in face-to-face teaching and learning in the classroom. The CILP director explains that e-classes can approximate face to face classes but,

> 'This involves hard work. Lots of time for preparation. When teachers don't do the right thing, the schoolbook gets the wrong image. Schoolbook is not just uploading lessons and giving assessments. It is redefining what teacher-student interaction is, or what assessment is. When done creatively, schoolbooks as a VLE can approximate face-to-face classes, even surpass them. Advanced countries with advanced VLEs have very functional and interesting distance education. It can be done'.

A few insist that blended classes fit their majors, mostly among the Communication and Journalism students. One asserted that SB allows the student choices,

> 'to be able to manage our time well given so many tasks we have, we need to be given room for choices. Schoolbook does that. For example, we are asked to do a movie review or an analysis of the directors' approach, we need to watch with other classmates because we have to discuss while watching and after watching. Film analysis is more profound if you can hear the views of others. Besides, we do not just watch once. Or we need to review certain scenes'.

Learners have taken over the technology to use it in their learning situations. They have innate knowledge on how SB is used, regardless of whether they were not taught or told about how to work around the platform. They however lamented the number of their teachers who are not keen on using SB nor were they familiar with its affordances. This is the reason why SB is not maximized because some teachers do not know more than they do; that when they use the messaging system of SB, they often never get a reply from most teachers. Most comments of the learners have to do with the internet, either in their house and more so in the university. If not for

lags and bugs in the system or connection, the connectivity requirement is not that appropriate yet to the university or the country in general. The learners may have transformed pedagogy into what they knew and what they wanted; it is just that many teachers are not that prepared nor the infrastructures equipped for the demands of the new technology in learning. However, changes in structures alone are not the only way to produce substantial improvements in the teaching and learning processes in VLE (Horn, 2013). This has to be systemic, which requires improvement on the part of the learning facilitators to speak the language of the learners. This is akin to what Aparicio, Bacao, and Oliveira (2015) asserted that any e-learning system to work must ensure the function and interdependence of people, technology, and services.

Studies suggest that one of the primary components of effective teaching (and consequently learning) is student engagement. Learners can only be engaged if they were supported by teachers who established an inviting learning environment that demands high results and high order thinking that will enable them to reflect, to question, or to make connections between concepts prompted by the lesson at hand (O'Flaherty & Philips, 2015). The use of VLE in the university is thus far from ideal.

Blended learning as applied in the university can be an effective strategy that positions the university for the onslaught of technological advances in the area of education. In the study of van Vliet, Winnips, and Brouwer (2015) in Amsterdam, the use of blended class though found to have enhanced the components of critical thinking, task value, and peer learning, the effects were not that long-lasting yet. Thus, proposing a repeated use of flipped class pedagogy in a curriculum to make the effect on deep learning more sustainable. In an interview with the university's VCAR and the Director of CILP, they both recognized the value of a new learning tool that has yet to be maximized to ensure that learning is optimized for students with new demands, new ways, and a new language of learning. This is a challenge to be hurdled by the university as it still has a long way to make the most of what VLE affords.

Conclusion and Recommendation

What do practitioners (learners and teachers) consider to be the underlying principles and raison d'être of using the SB, DLSU-D's virtual learning environment? As claimed, SB renders learning ubiquitous. No specific time and place are needed for learning to take place.

SB heaps commendations as respondents perceived it to be more time effective and cost-efficient, especially during unplanned class interruptions, such as the recent power outage. Teacher-student communication is immediate. Learning materials are likewise easily uploaded not just by teachers, but by learners as well. Hence, DLSU-D's VLE becomes a tool to achieve a particular pedagogical goal, i.e. enabling more effective information-sharing. Allowing easy access to notes and other materials has several consequences for teaching and learning processes: it requires new preparation routines for the students as they are expected to access the online notes before the lecture. It also opens a window into the teacher's preparation process. In

that respect, students are afforded a chance to study ahead of face-to-face discussions or to master lessons that are yet to be discussed via notes, links, videos, among others, uploaded by the teacher. Hence, VLE renders the learning ascendancy of teachers obsolete. Consequently then, VLE could be seen as an equalizer: teachers no longer have the monopoly of content.

On the part of the teachers, the preparation process is the part where the problem lies. Teachers in general minimally prepare their materials such that although its introduction brings about new pedagogy, i.e. teaching practices that incorporate online materials, there is little indication that it has had any revolutionary effect on the existing learning style in DLSU-D. While administrators trust that VLE would be embraced wholeheartedly by lecturers and students alike, evidence from this study showed that many teachers underutilized some of the affordances of SB, while others chose not to use the system at all. It seems that the teaching and learning based on established practices, notably, the traditional face-to-face are not easily shaken.

The use of SB as a VLE imposes different needs and constraints upon the planning, preparation, delivery, and maintenance of learning and teaching situations, which many teachers are at best unaccustomed, at worst, unwilling to adapt. However, the use of technology particularly VLE is called for at this time as this is now the language of student learning that provides students with a plethora of learning opportunities, anytime and anywhere.

The study presupposed that for students to benefit from VLE, teachers utilizing automated instructional methods must properly incorporate theories of teaching and learning into the execution and design of their discipline content. Therefore, attention should focus on the way the technology is experienced by student users, rather than the potential benefits of the technology itself.

The study, thus, recommends that schools and universities that utilize learning management systems must take into consideration the preparedness of the teachers and students (people) to use a virtual platform (services) in as much as the establishment of infrastructural/technological requisites of internet speed and reliability (technology).

Endnote

*De La Salle University-Dasmarinas is a higher education institution south of Manila in the northern part of the Philippines. It is a member of De La Salle Philippines (DLSP), a network of 17 Lasallian institutions. It is a Catholic private university run by the De La Salle Brothers.

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