



Research Article

Flipping the Classroom the Canvas Way: An HEI's Learning Management System (LMS) Experience

Dr. Maria Theresa B. Kalaw
De La Salle Lipa
ma.theresa.kalaw@dls.edu.ph

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ABSTRACT

The study aimed to ascertain the effectiveness of Canvas, a Learning Management System (LMS) used by a Higher Education Institution (HEI) in CALABARZON, in maximizing students' engagement and learning as experienced by the students and their teachers. Employing the phenomenological approach, the researcher used quota sampling in choosing the respondents, which included officially enrolled students from the Junior and Senior High School and the Colleges as well as selected faculty members who voluntarily shared their experiences, citing the advantages and disadvantages of using the LMS elicited through one-on-one interviews and focus group discussions. Among the advantages cited by the respondents were the ease in communication, making the sharing of knowledge more accessible for both the students and the professors. Being paperless, Canvas is very useful as it makes the entire recordkeeping more organized and allows the teachers to create online quizzes and activities that can be evaluated automatically as soon as the students submit their activities. Sharing presentations and documents has also become quite easy which makes the entire system more efficient in terms of knowledge propagation. On the other hand, the reduction of face-to-face meetings considered as avenue for students to exchange meaningful and experiential discussions about life's lessons and their worldviews resulted to limited physical interaction. More options to have dynamic and interactive activities with the students using the system, such as a compatible software to embed a coding activity that would assess students in real-time, and other compatible and embeddable codes for students' evaluation and assessment were among the given suggestions.

INTRODUCTION

The Coronavirus 2019 (COVID-19) pandemic has created significant challenges for the global higher education community, and several studies have been undertaken recently to identify diverse responses of higher education providers. (Crawford, Henderson, Jurgen & Malkawi, 2020).

Thousands of school closures, particularly in the Philippines, followed in a very limited period to enforce social distancing measures that resulted in surmounting challenges in the educational system's

planning, implementation, and assessment. The global pandemic opened up opportunities to upgrade every country's educational mode of delivery and transfer its attention to emerging technologies. The pandemic pushed higher educational institutions to strengthen their evidence-based practices, provide accessible mental health-related services, and make their curriculum responsive to the needs of the changing times.

Being an educator for 28 years, the researcher could attest that one of the various challenges teachers

currently face is how to engage students in meaningful discussions during class time, especially now that schools are adapting the full-online mode of teaching and learning. Numerous researches focused on designing and evaluating teaching approaches have been recently conducted, highlighting the use of technology as effective tools to address this problem. Technology alone will not enhance learning, but using it as part of good teaching practice can open new doors to learners and teachers. In recent years, the flipped classroom has become one of the emerging technologies in education. It can be a standard of teaching-learning practice to foster students' active learning in higher education. To address the 21st-century learners who are tech-savvy, an Higher Education Institution (HEI) in CALABARZON adopted the Borderfree Learning Management Platform (BLMP) powered by Instructure's Canvas. Canvas is the institution's new Learning Management Systems (LMS), which the administration envisions to benefit the teachers and the students.

A learning management system (LMS) is a software application or web-based technology used to plan, implement and assess a specific learning process. It is used for e-Learning practices and, in its most common form, consists of two elements: a server that performs the base functionality and a user interface that is operated by instructors, students and administrators (Brush, 2021).

The teacher shifts his position from being a "Sage on the Stage" to a "Guide on the Side" in the flipped classroom. During class time, the teachers continually observe their students, providing them with

feedback relevant in the moment, and assessing their work. They are reflective in their practice, connect with each other to improve their instruction, accept constructive criticism, and tolerate controlled chaos in their virtual classrooms. While professional educators take on less visibly prominent roles in a flipped classroom, they remain the essential ingredient that enables flipped learning to occur. (FLN, 2014).

A growing number of higher education individual faculty have begun using the flipped model in their courses. With new tools that may emerge to support the out-of-class portion of the curriculum, the flipped model puts more of the responsibility for learning on students' shoulders while giving them greater impetus to experiment (EDUCAUSE, 2012). The University of Utah has been flipping the classroom via Canvas since 2013. It has a specific page that explains how the teachers do it and the benefits derived from its use. (Utah.instructure.com, 2013)

A most recent systematic review by Chen, Lui, and Martinelli (2017) examined 46 articles on the effectiveness of flipped classrooms in medical education with different learning outcomes. The review presented perceptions of flipped classroom stating "... students were generally satisfied with the approach, particularly the usefulness of the online modules, because of easy access to resources for self-paced learning". This review study also reported positive attitude changes after using the flipped classroom. Studies have suggested that medical students reported increased enjoyment, decreased boredom, and greater task value in flipped classroom. Considering these views, flipping the classroom using Canvas is one of

the methods by which teaching can actively involve students and facilitate their own enquiry.

The HEI introduced Canvas four years ago as a web-based Learning Management System (LMS) designed to support blended teaching and learning in the whole institution. Blended learning is an approach that combines traditional face-to-face teaching method with online-based instructions (CIIT, 2021). The LMS was initially enforced in the Integrated School unit in classes from Level 4 to Senior high school and in the College unit. Following the 2 – 1 policy of the school, classes were held with two hours face-to-face interaction inside the classroom and one-hour online activities per subject or course taken by the students.

The LMS-Canvas enables teachers to host a range of online resources and tools such as tutorials, content/skills-related activities, quizzes, message boards, chats, discussion lists, tracking of students' progress, course content pages, and systems for collecting and collating students' marks.

The LMS-Canvas is intended to help teachers reflect on students' learning processes and meet the needs of individual students. The Canvas features include: A course content repository. Recording students' marks. Discussion lists (forum) where class members could observe the activities and contribute. The system also has calendars, provision of exercises together with their answers, assigning deadlines for students to send their answers to the exercises, correcting the students' exercises, etc. However, the capabilities of any LMS need to be evaluated to explore its effectiveness, and such exploration may result in

discovering opportunities for improvement.

Objectives of the Study

When the HEI introduced Canvas to enhance teaching, students and teachers faced numerous challenges relative to its implementation. Therefore, this study attempts to identify the positive and negative aspects of the system's function from the viewpoints of the students and the teachers. Specifically, it will answer the following questions: (1) What are the advantages of using Canvas, based on the students' and the teachers' experiences? (2) What are the drawbacks of using Canvas, based on the students' and the teachers' experiences? (3) What suggestions given by the students and the teachers can be considered for the improvement of the LMS?

The main objective of this study is to survey the students' and teachers' experiences in using Canvas, the LMS currently utilized at the institution in CAL-ABARZON, to identify the strengths and weaknesses of the system. The findings of this study provide baseline data that will help quantify and qualify the services provided by the LMS and demonstrate how much information the students, as the major users, can offer suggestions to improve the Canvas utilization.

Literature Review

The use of information communication technology (ICT) to build human resources is a vital prerequisite for developing a knowledge-based economy, especially for developing countries. Learning Management Systems provide academic institutions with

effective and efficient means to build human resources and enable them to efficiently codify and share their academic knowledge (Al-Busaidi, 2016).

Findings of the study conducted by Fathema & Akanda (2020) recommended routine evaluation and assessment of instructors' needs related to LMS. The authors suggested that, together with general LMS training, campuses design and offer discipline-specific LMS training to ensure instructors' needs for LMS based on their academic fields are addressed. They also proposed that universities design and offer basic and advanced LMS training programs for instructors with different levels of LMS experience.

As instruction designers, teachers need to ensure that the student's learning experience is equivalent regardless of the delivery platform. For this reason, Wilcox, Thall, & Griffin (2016) recommended that developers of learning management systems, such as Canvas, consider improving the functionality of the applications they offer for use on smartphones. Improved functionality will allow students to experience the course as designed by the professor and not as a series of disorganized files.

The study of Muruthy & Yamin (2017) provided empirical evidence to show how administration and instructors can motivate the students in higher education to utilize LMS in their learning process and expand the LMS application in secondary education. Gautreau (2011) examined the motivational factors affecting the integration of an LMS by faculty and revealed that conducting a needs assessment is essential. The information attained through a needs assessment

may inform and aid in developing a well-structured and balanced faculty development program that addresses the needs of faculty. Recommendations based on the findings of this study were divided into four categories. The categories included (a) increasing the awareness of faculty motivation factors among constituencies, (b) expanding the knowledge of professors inhibiting factors among constituencies, (c) promoting faculty development programs to address faculty needs; and (d) improving technology proficiency and knowledge among faculty to improve their ability to use an LMS.

Kulshrestha & Kant (2013) examined the awareness levels, degree of familiarity, and readiness to accept e-learning environments. Their study identified benefits of LMS such as contents being repeated until learners understand it properly; multimedia learning methods can be used depending upon learner receptivity; e-learning is culture-independent. The other benefits of LMS are learning is flexible in terms of timings and completion of the syllabus, and individual problem solving is possible. Some of the deterring factors in LMS use include challenges in the availability of infrastructures like the internet, electric energy, and consumption during e-learning study. The other disadvantages of LMS are poor handwriting due to overuse of keyboard, student tardiness is often seen if class contents are available online, and possible health risks due to overuse of computer that can damage the students' eyesight.

In the modern world, where information disseminates quickly via the internet, the LMS is an essential tool for university students to be updated with their

coursework and get instant notifications of their daily assignments. Teachers likewise have an easier time reaching out to their students out of class hours and can instantly update them over the LMS about issues regarding their coursework. Universities should provide proper training and guidance for students and lecturers using the LMS and have a team constantly working on-call to solve any problems that may arise. (Adzharuddin & Ling, 2013).

To fight the spread of coronavirus and maintain healthy social-distancing, schools across the country and in various parts of the globe have temporarily closed and quickly transitioned from on-campus, face-to-face learning to distance learning. During this pandemic, access to technology and internet is an urgent requirement. Jena (2020), in her article, suggested significant issues associated with distance learning strategies that the government and the stakeholders must address. These include the availability and access to digital devices with internet connectivity, the need for safe learning spaces, creating capabilities for teachers, families and students to operate and navigate digital devices, and engaging lesson plans for disabled students and other marginalized groups.

Theoretical/Conceptual Framework

The Michigan State University Office of Medical Education (2014) presented six easy steps for implementing flipped classrooms: (1) Plan - Figure out which lesson you want to flip in particular. Outline the key learning outcomes and a lesson plan. (2) Record - Instead of teaching this lesson in person, make a video or a screencast that contains all the key elements you

would mention in the classroom. (3) Share - Send the video to your students. Make it engaging and clear. Explain that the video's content will be fully discussed in class. (4) Change - Now that your students have viewed your lesson, they are prepared actually to go more in-depth than ever before. (5) Group - An effective way to discuss the topic is to separate into groups where students are given a task to perform. (6) Regroup - Get the class together to share the individual group's work with everyone. Ask questions and dive deeper than ever before.

E-learning, also referred to as online learning or electronic learning, is the acquisition of knowledge through electronic technologies and media. In simple language, e-learning is defined as "learning that is enabled electronically". Typically, e-learning is conducted on the Internet, where students can access their learning materials online at any place and time (Abernathy, 2019).

In the comprehensive literature review to understand how to implement e-learning presented by Andersson & Gronlund (2009), a framework was arrived at based on the qualitative analysis of the challenges in the context of the developing countries. The literature study yielded thirty challenges belonging to four main categories; Challenges pertaining to individuals' characteristics (both students and teachers); technological challenges; course challenges (different support functions, the course itself with its pedagogy and activities); and contextual challenges (the institutional management and organization as well as the surrounding society with its values and regulations).

Individual challenges	<p><i>Student</i></p> <ul style="list-style-type: none"> • Motivation • Conflicting priorities • Economy • Academic confidence • Technological confidence • Social support (support from home and employers) • Gender • Age <p><i>Teacher</i></p> <ul style="list-style-type: none"> • Technological confidence • Motivation and commitment • Qualification and competence • Time
Course challenges	<p><i>Course design</i></p> <ul style="list-style-type: none"> • Curriculum • Pedagogical model • Subject content • Teaching and Learning Activities • Localization • Flexibility <p><i>Support provided</i></p> <ul style="list-style-type: none"> • Support for students from faculty • Support for faculty
Contextual challenges	<p><i>Organisational</i></p> <ul style="list-style-type: none"> • Knowledge management • Economy and funding • Training of teachers and staff <p><i>Societal/Cultural</i></p> <ul style="list-style-type: none"> • Role of teacher and student • Attitudes on e-learning and IT • Rules and regulations
Technological challenges	<ul style="list-style-type: none"> • Access • Cost • Software and interface design • Localization

TABLE I: Framework on Challenges for e-learning (adapted from Andersson & Gronlund, 2009)

Canvas is a cloud-based Learning Management System (LMS) that makes teaching and learning easier, utilizing tools designed for online use, mobile, and tablet. It is an application that delivers a customizable architecture and design enabling users to educate or learn the way they want to. Communication between teacher and learner is emphasized, making it easier for both parties to collaborate on the learning process. For students, Canvas LMS allows them to obtain notifications, submit paperwork, and interact with the learning materials on the machines they use. They can also integrate their Canvas LMS account with their social media accounts like Facebook and Twitter. For educators, Canvas LMS offers a system to generate

the learning tool they want for their learners. Teachers can offer feedback and combine videos, blogs, wikis, and other education channels while watching their students' progress. (Canvas LMS Review, 2017).

Through one-on-one interviews and focus group discussions, the study elicited the students' and the teachers' experiences, citing the advantages and disadvantages of using the LMS. Figure 2 shows the framework used in the study:



Figure 2: Students' and Teachers' Experience in using Canvas

MATERIALS AND METHODS

This study employed the phenomenological approach - a key qualitative research method that aims to understand a phenomenon or event by describing participants' lived experiences. Using interviews and focus group discussions as the primary data collection methods, the researcher utilized quota sampling in choosing the respondents. The respondents were composed of 25 officially enrolled students from the Junior High School, Senior High School, and the Colleges and 25 selected faculty members who voluntarily shared their views and experiences on the initial implementation of Canvas. The students' ages ranged from 12 to 22, while those of the teachers ranged from 20 – 60 years old.

Quota sampling is a non-probability sampling method that gathers representative data from a group. The application of quota sampling ensures that the sample group represents certain characteristics of the population chosen by the researcher. The quota is based on the proportion of subclasses in the population. Although there are no formal rules that govern how to get the sample, in quota sampling, the general steps to follow are: (1) divide the population into subgroups which should be exclusive; (2) figure out the proportion of subgroups to the population; (3) Choose the sample size; (4) Choose participants, being careful to adhere to the subgroup: population proportion. The selection process continues until the quotas are filled. (BRM, 2021)

The study commenced upon the introduction of LMS to the students in class. While doing some particular academic tasks using Canvas, the students were requested to reflect on the system's functions. Interviews with the students elicited their perceptions of the LMS by asking them to answer three open-ended questions. (1) What are your perceived advantages of using Canvas? (2) What are your perceived disadvantages of using Canvas? (3) What suggestions can you give to improve the LMS?

Before conducting the interviews and focus group discussions (FGDs), the researcher sought permission from the school's Vice Chancellor for Academics. Likewise, considering some ethical issues connected with gathering data from the participants, the researcher sought their informed consent before proceeding, including those of the parents of students under 18 years of age. The participants' consent was

solicited through a letter explaining that partaking in the interviews and FGDs was voluntary and would not cause them any harm. They can withdraw from participating anytime during the process. Moreover, the participants were ensured that their responses would be kept confidential and used entirely for research purposes only.

Employing the inductive approach to thematic analysis, the researcher followed the six-step process: familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing up (Caulfield, 2022). After gathering sufficient data, the researchers carefully transcribed and coded the participants' responses to draw out the emerging themes to ensure proper analysis and interpretation of the qualitative data.

Likewise, the researcher conducted in-depth and personal interviews with the teachers to draw out their experiences in facilitating their classes through the LMS. They were asked to give valuable feedbacks by answering the following questions:

- Do you perceive engaging students in meaningful discussions during class time as a problem?
- How do you feel about using the Canvas in flipping the classroom?
- What are the advantages of using the LMS in your classes?
- What are the drawbacks of using the LMS in your classes?
- How likely is flipping the class using Canvas to make a change for the students?

- What suggestions can you give in order to improve the LMS?

The researcher conducted two separate focus group discussions (FGDs) to validate the interview responses. One session was done with eight student participants, four representatives from Junior High School (JHS) and Senior High School (SHS), and four from the college unit. The other session involved six faculty members, three teachers from the JHS & SHS, and three from the college unit.

RESULTS AND DISCUSSION

Several themes emerged from the thematic analysis done on the responses elicited from the students.

Responses from Students' Perspective

Research question one: What are your perceived advantages of using Canvas?

Based on the students' responses during interviews and FGD, three themes emerged relating to the advantages of using Canvas.

(1) On System Quality

As an institution that promotes environment-friendly practices, Canvas was introduced as the new learning management system, paving the way for paperless education for students. Since the teachers upload all the lectures and learning materials in Canvas, the students do not need to print hard copies or bring heavy books to school. As one student stated, "I get to focus on my teacher's discussion without wor-

rying about jotting down notes since the course materials are already uploaded in Canvas." Online submission, of course, requirements are also easier and more convenient. Canvas is easy to use, with apps readily accessible using the internet, promoting self-paced learning even for new students. Canvas also helps in time management, having a calendar that keeps students organized, displaying assignments and due dates across all active courses. The notification feature of Canvas constantly reminds the students of the tasks to finish and submit on time, thereby increasing students' productivity.

The practice reflects the essence of flipping the classroom as students become more responsible with their learning. In this blended learning approach, face-to-face interaction is combined with independent study—usually via technology. Students watch pre-recorded videos and do their assignments at home in a common Flipped Classroom scenario. Then, they come to school to attend face-to-face classes armed with questions and some background knowledge, enabling them to participate actively in the discussions.

The LMS also innovates 21st-century education since the cloud-based courses in Canvas are organized, and all related materials are stored in one secure location. The LMS organization gives the students a feeling of being "more advanced" in using technology than their peers from other schools that do not use the online learning mode. A similar notion stipulated in the article of Gautreau (2011) emphasized that the electronic tools available in an LMS provide faculty with a comprehensive approach to organizing course content and completing administrative proce-

dures. Distribution of reading materials and handouts is through electronic documents and files, eliminating additional clerical tasks.

(2) On Technology Experiences

Canvas is advantageous, especially when used with a high-speed internet connection. The LMS allows various forms of student learning demonstration using electronic tools such as discussion boards, files, grade books, electronic mail, announcements, assessments, and multimedia elements. A student shared during the FGD: “Even if I’m absent from class, I can still browse the course materials and catch up with the lesson.” Another student affirmed: “If ever there was something I missed in class, I can easily get back to it.”

Canvas also promotes collaboration among students. The discussions and collaboration features make it easy for the students to form groups and exchange ideas using apps such as Google Docs accessible to all group members. A student also said, “We are readily informed of what is happening in class through Canvas.” Another student commended the system: “Canvas is a good way of communicating with my profs; they use it to upload supplementary materials for our course and to announce to class if they are not around for our face-to-face meeting, so we get to devote our time for accomplishing other important tasks.” According to Gautreau (2011), the potential uses of an LMS to improve the teaching and learning process include increased access to course content and improved communication among professors and students.

(3) On Information Quality

The students also recognized their teachers’ proficiency in using Canvas. They mentioned that their instructors explain the materials uploaded in the Canvas during face-to-face discussions and give immediate feedback on their performance in class. The students are notified immediately of what is happening in the course and can see their progress in class since their scores are easily accessible through Canvas.

The LMS also promotes ease in communication between students and teachers. The students expressed their satisfaction in the effective use of Canvas as it connects them with their teachers even outside the classroom. They appreciate sending messages to their teachers through the inbox if they were late in submitting course requirements. One student said, “Canvas makes it easier for me to submit course requirements since most of them are done online; we can submit them even without seeing our professors personally.” Another student shared that “Incidences of loss or misplacing my submitted papers are avoided since they are submitted online.”

Research question two: What are your perceived disadvantages of using Canvas?

In the interviews and FGDs, the students raised several concerns about Canvas and its implementation. Three themes emerged from the coded responses - individual, contextual and technological challenges, which the students considered as drawbacks in using the LMS.

(1) On Individual Challenges

To a certain extent, the use of Canvas promotes students' procrastination. Some students find that they become less productive, having the mentality that the lessons are readily available in Canvas to delay doing the tasks until the last minute. Since the lessons are uploaded already, sometimes the students do not listen during face-to-face discussion class anymore. They get bored so easily, especially when the teacher uses many text presentations, making the lesson uninteresting. Students become lazier and more complacent, putting off work that can be done already since materials can readily be accessed thru Canvas. Some students tend to have the "mañana habit" in doing their tasks, seeing that the deadline is set until almost midnight, so they procrastinate at first and then cram to beat the deadline. It contributes to another drawback related to health risks. Some teachers set deadlines for submission very late at night, so the students stay up late to finish their tasks, depriving them of sufficient sleep.

Students are advancing very fast in terms of technology, so much so that they get compelled to update their skills in utilizing Canvas and, in turn, get engrossed with using gadgets. However, prolonged exposure to the gadgets leads to the students' eyesight deterioration.

Another disadvantage that the students identified was the high cost related to the use of Canvas. A reasonable increase in tuition fee was imposed due to installing infrastructure that will provide internet access to students and teachers inside the campus. Not

all students can buy laptops or cellphones to access Canvas, although the school lends laptop units for the personal use of students upon reservation thru MHub. However, priority is given to scholars in lending the laptop units.

(2) On Contextual Challenges

Inconsistency of the teachers' use of the Canvas features was one of the drawbacks perceived by the students. Some teachers set unreasonable deadlines, i.e., the assignment being given in the morning and then submitted until midnight of the same day. It is a disadvantage for the students to take online quizzes, especially when the teacher sets it on a mode that does not allow students to go back to previous numbers to review their responses. Canvas gives inaccurate results during quizzes/exams that necessitates teachers to double-check the students' answers.

Another disadvantage that the students perceived is the experience of Technology Anxiety. Some students experienced hitting the wrong button while taking an online quiz, and when they tried to change their answers, the system would not allow it. Some students felt that the time allotted to accomplish assignments/activities was not enough. Sometimes, the portal gets closed when they submit online and cannot submit beyond the set deadline. Due to time constraints in deadlines given by the instructor, the quality of the students' output becomes substandard. Certain models of cellphones like Android or iPhone have limitations (i.e., lacking inappropriate features of the gadget), making it difficult to download materials. For some new students and transferees, using Canvas was a new

experience, so they had to ask the help of their classmates.

(3) On Technological Challenges

Students have also identified technical difficulties that are deterrents to the successful utilization of the LMS. Since Canvas is dependent on the internet, students find it difficult to comply with requirements online when a power interruption occurs or when the internet connection is slow. Moreover, not all students have an internet connection at home, and they cannot access Canvas using data only on their gadgets. When students attempt to access Canvas learning modules on their smartphones, the content of the learning modules appears as individual files, with no apparent organization. Notifications sometimes do not appear, so the students must check each course manually for new assignments or tasks. In addition, delayed notifications cause the students to comply late with the set deadline. System error occurs when students take online quizzes - sometimes, the system marks our answers wrong even if we gave the correct answers.

Students cannot download the application of Canvas if their gadget's system is not up-to-date. The use of the LMS is disadvantageous for students who are not tech-savvy, knowledgeable, or skillful in using gadgets. Even if there is an app for parents to access Canvas to monitor their children's progress in school, sometimes they do not have the technological knowledge to do it.

Responses from Teachers' Perspective

Research question one: What are your perceived advantages of using Canvas?

Based on the responses given by the teachers during interviews and FGD, three themes emerged relating to the advantages of using Canvas.

(1) On System Quality

Being new to the experience of switching from traditional to blended teaching, the teachers agree that Canvas is one of the quintessential tools of eLearning, serving as the building block of their online courses and modules. Faculty use the LMS to perform a number of functions, including (1) storing course content; (2) communicating with students; (3) managing grades; (4) delivering assignments, quizzes, and exams; (5) calendaring activities; and (6) monitoring attendance.

Using Canvas has made the activities easier to accomplish not just for the students but more so for the teachers. The LMS is a big help in flipping the classroom as it allows easy uploading of course materials supplementary for students' learning. Students who miss face-to-face discussions have access to files and are able to view the materials during their free, convenient time and they can go back to lessons that were not clear to them. They can also accomplish the formative assessments at home to give them ample time to finish the activities. Files are readily accessible anytime so students can read files and watch videos beforehand during their most convenient time if they want to study.

As one teacher shared: “Canvas gives me an opportunity to establish an enjoyable learning experience for the students. It enables both students and teachers to explore and develop ways on how to understand and explain the lessons well.” Another faculty said, “Using Canvas in my class helps me to organize things well. From time to time, I am able to develop and use different approaches on how to present and discuss my lessons”.

Similar to the students’ views, the teachers also agree that using Canvas promotes sustainability, is paperless and is less costly in terms of printing questionnaires for their quizzes and exams. Utilizing the LMS has lessened the burden of carrying heavy materials like books since it is paperless and they only need their laptops to access the system online. It is also more convenient and eco-friendly; it saves time and money for the students since they do not need to print or have the materials photocopied – the teachers can simply upload them thru Canvas.

When used properly, Canvas can lessen the workload of the teacher. Canvas makes it easier for the teachers to check the students’ outputs. Giving online quizzes is much easier to record the scores because the system already checks and gives immediate feedback on the assessment. Monitoring of students’ attendance is also easier thru Canvas. The LMS is a good alternative in delivering lectures and is very helpful in disseminating course contents such as PowerPoint presentations, videos, files to the students.

The capability of Canvas to promote students’ self-management is advantageous for the teachers.

When students download course materials and read in advance, they come to class prepared and ready for the face-to-face discussion, which is a big help for the teachers. Since the materials are readily and easily accessible using their laptops, desktops, and mobile devices beforehand, the students find it easier to track the lesson. It lessened the need for the teachers to remind their students of what they need to accomplish. Likewise, it enabled the students to decide what to do, especially what to prioritize and what can be put aside first.

Teachers can disseminate information easily through announcements and expect students to update themselves on the activities relative to the course. Flipping the classroom through Canvas will likely equip the students with knowledge before face-to-face discussions and promote independent learning. When given proper orientation, the students will be able to explore and maximize the use of Canvas.

(2) On Technology Experiences

Optimized accessibility is one of the most significant benefits of Canvas. Using the LMS promotes active student engagement since all online courses and accompanying materials can be accessed whenever and wherever, 24-hours a day, seven days a week. Engaging students in meaningful discussions is not a problem anymore since the students are more tech-savvy and tend to explore more the features of Canvas. They enjoy using gadgets/laptops so they are well engaged in the face-to-face discussion, especially when they are able to view the lessons beforehand. Even those who were not able to view files earlier

have the opportunity to catch up with the lesson.

When the students follow the teacher's instruction to do advanced reading, it's easier for the teacher to facilitate learning during face-to-face discussions by asking key questions, processing students' responses and providing meaningful and engaging activities for the students. The teacher is able to give even the silent or not so active students the opportunities to express their ideas since they are more confident having read the materials beforehand. As one teacher said, "Canvas gives me an opportunity to establish an enjoyable learning experience for the students. It enables both students and teachers to explore and develop ways on how to understand and explain the lessons well."

Using the LMS facilitates communication between students and teachers. Teachers can easily update or inform the students regarding the lessons and give immediate feedback on the students' performance. Students can monitor their progress and assess their performance in class; even parents who enrolled in Canvas as observers are also informed of their children's accomplishments through the LMS.

The teachers can notify their students about the tasks they need to do so they are aware of what they missed or failed to submit. When classes are canceled, or some unavoidable circumstances happen that the teachers cannot meet their classes face-to-face, Canvas is a big help in giving instructions and activities. In that case, the attainment of the scheduled learning outcomes is not delayed or compromised. Giving instructions to the whole class is easier using Canvas. Online discussions pave the way for students to give

their insights on the topics discussed; they can freely express their ideas through online discussion than during face-to-face discussion.

Using Canvas allows the teachers to enhance their knowledge in the use of technology, which is an advantage since not all schools have an LMS like Canvas. Faculty are required to prepare carefully planned lessons and be creative in presenting activities that can develop the desired outcomes from the students. The Canvas becomes a platform for introducing other technologies/apps students can use as supplementary materials. Since the institution is in the transition period, using Canvas gives the teachers more time to work on other tasks relevant to their functions.

(3) On Information Quality

Social interaction is essential to making a learning experience worthwhile. The teachers see this fostered in their classes using Canvas to encourage students' collaboration. Utilizing the LMS in managing the class helps the teachers to organize things well and use different approaches on how to present and discuss the lessons.

Communication and knowledge sharing is more accessible for the students and the professors. Records are stored safely; students can access previous activities that serve as their reviews and easily communicate with their professors for any queries. Through Canvas, teachers have easy access to information, giving feedback to students becomes punctual, mode of submission is not a hassle, and communication is fast.

Another advantage that teachers attribute with the use of Canvas is the transparency of students' grades. The LMS Canvas makes it easy to check quizzes and give instant feedback to students. The Gradebook feature simplifies the process of grading and recording students' activities. The repository of records keep the documents safe and intact. With Canvas, teachers can give immediate feedback to the students on their formative and summative assessments.

Similar to the students' views, the teachers also consider Canvas as user-friendly and easy to navigate. As one teacher said, "Being a millennial teacher, I got excited to use Canvas because it made it easier for me to communicate with my students, plan events, post announcements, give assignments and quizzes online."

Research question two: What are your perceived disadvantages of using Canvas?

For educators who regularly use technology in instruction, adopting new technology can be problematic. Based on the responses of the teachers in the interview and FGD, two themes emerged – individual challenges and technological challenges.

(1) On Individual Challenges

Engaging students in a conversation is a challenge because of divided attention. Will they focus on the gadget or the teacher discussing the lesson in front of the class? Sometimes the students rely more on Canvas than what the teacher explains. Since submission thru Canvas is easily made, often the students tend

to be complacent in answering/accomplishing the activities. Some students, particularly those who have experienced using Canvas in their senior high school years, tend not to listen or pay attention during face-to-face discussions. Since they can use the internet during face-to-face discussions, sometimes they tend to browse other sites and chat with their classmates online. Sometimes the students' attention span gets distracted when the pdf version of the PowerPoint presentation of lectures is already uploaded; the students tend to read the files and not listen to the teacher anymore during discussions. Some students do not access their files earlier, so they find it difficult to answer the teacher's questions during face-to-face discussions. When students do not comply with the required advanced reading, the teacher briefly reviews the lesson for the students to catch up and emphasize the key points of the lesson.

Another challenge the teachers face is the difficulty in monitoring student engagement during face-to-face discussions. The teachers find it difficult to monitor whether the students are accessing the files/lectures for the course or they are browsing other internet sites, especially online games. During face-to-face discussions, the teacher has to roam around the classroom and monitor their students' gadgets to ensure that they access only the materials (like files and videos) needed in class. Because there is no total lockdown feature for the Canvas, the students tend to browse other websites like Facebook or messenger. Such weakness makes it difficult for the teachers to monitor a class with 40 to 45 students. Some parents are worried because they have observed that their children spend much time using their gadgets, espe-

especially during nighttime, saying they have activities or outputs to submit.

The teachers also noted that students' values formation is not given emphasis or enough importance when using Canvas. Students' creativity and patience are not being developed during the face-to-face discussion because they want to get the answers instantly (students' skills on the 4C's are somehow being neglected). When teachers allow their students to use search engines during face-to-face discussions, the student's sense of responsibility is not developed. Their good manners and right conduct (like showing respect to teachers and other persons in authority) are not honed. Canvas limits personal collaboration and expression of feelings and emotions; they focus more on their gadgets than interacting personally with their classmates during face-to-face discussions. The students' facial expressions, gestures, and emotions are not visibly seen; sometimes, their actions are different from what they say. The students do not appreciate the value of social interaction, of being true and humane because of too much exposure to gadgets.

The students lost their "human touch" being inclined to using gadgets and other mechanical instruments, the values and attitudes as well as the emotional aspects are not being honed through online communication. The students' attention span is shorter and they have become quick-tempered. Social interaction is lessened and communication skills have lowered. Most of the time, the students either choose to ignore the uploaded files or do not open their accounts to check the announcements made prior to discussion. Teachers always need to remind the students

that they are expected to read in advance or do the modules intended for that period. Hence, the purpose of uploading the materials beforehand is defeated.

(2) On Technological Challenge

Intermittent or slow internet connection sometimes causes a delay in online activities during face-to-face discussion. Coupled with the unavailability of students' gadgets, if the internet connection is not strong, the students cannot maximize the use of Canvas. Sometimes new passwords for the internet connection are set without informing the students, making it difficult for them to access Canvas. Students are sometimes susceptible to committing mistakes, especially when using their smartphones because of the screen's small size. The school provides limited internet access and a slow internet connection. Canvas does not have a browser locking feature (unlike other platforms like "Blackboard") and a webcam that could be turned on during quiz time so the teacher can verify the students taking it.

Teachers are forced to have rigorous preparations for the lessons and are pressured to upload files ahead of time. The element of surprise is lost when teachers upload the materials beforehand. Also, when discussions are done online, the teacher cannot feel the emotions of the students about the topic being discussed. When students do not do advanced reading and are not able to master the prerequisite skills in the previous topic they find it difficult to understand the next. The teachers sometimes go back to the traditional way of teaching (chalk and talk) especially if the students do not understand the topic based on their own reading.

There are some important concepts that the students might not be able to grasp if they will not do advance reading or access in advance the materials uploaded by the teachers.

According to the Organization for Economic Co-operation and Development (OECD), the COVID-19 crisis has forced school closures in almost 200 countries, disrupting the learning process of more than 1.7 billion children. Most governments, including the Philippines, were forced to adopt distance-learning solutions to ensure learning continuity. Much of the debate focuses on how much students have learned (or missed) during school closures (Tadalan, 2021).

When the institution in CALABARZON started to implement full-online mode of learning via Borderfree Learning Management Platform (BLMP) powered by Instructure's Canvas towards the end of school year 2019, there were a lot of challenges and setbacks shared by the students and parents. Having experienced stumbling blocks in learning through self-paced mode, students disclosed their sentiments over the difficulties encountered during the previous school year, 2020, by answering the online Student Satisfaction Survey on Borderfree Learning Experience administered by the institution. Responses gathered from 2,470 junior high school, 2,035 senior high school, and 3,382 college students revealed that majority found this 'new normal' mode of learning truly challenging. Following are some of their observations: "Having too many tasks associated with the modules made it difficult to accomplish on time", "the short or limited time set by the teachers to submit requirements", "Internet connection, anxiety, activities

or task to do in canvas and lack of time management".

CONCLUSION AND RECOMMENDATIONS

The study identified several key issues related to course design for learning management systems. The perceptions of the students and teachers relative to the advantages and the drawbacks of using Canvas led to the formulation of suggestions on how to improve the system.

Following are the recommendations of the students:

Research question three: What are your suggestions for the improvement of the LMS?

- Improve the wifi connection
- Offline access to Canvas
- Offline administration of quizzes
- Enhance teachers' capability in using Canvas
- Develop other features of Canvas
- Balance between online and face-to-face interaction
- Systematic information dissemination on the use of Canvas
- Improve time management for face-to-face Canvas use.

In addition to the suggestions above given by the students during the interviews, the following recommendations were elicited from the FGD conducted:

(1) Most elementary students, particularly those in Kinder to grade 5, need not use Canvas at an early age. Students will benefit more from the traditional



heart-warming face-to-face discussions, with teachers giving much input and a lot of interaction with their classmates but less use of gadgets. It is not good to bombard little children with a lot of information using Canvas; it is better to start instructing them using the traditional way first and then eventually introducing the use of the LMS when they are ready. Introduce the use of Canvas when students are matured enough (i.e. when they are in high school already) since they would be able to manage themselves in using their devices to ensure that they are being used for academic purposes only.

(2) Identify subjects or courses that need to use LMS extensively; the “2–1” policy should not be implemented in all subjects since it limits face-to-face interaction, necessary for maximum learning. The Canvas should enhance knowledge or clarify things that students did not understand in class during face-to-face discussion. Encourage Canvas inside the classroom for the students to display their outputs during face-to-face meetings to ensure the authenticity of their assessment.

(3) Mode of giving quizzes should be considered (i.e., not necessarily online). For “out of the classroom online quizzes,” strict rules should be implemented to reduce the incidences of cheating on the part of the students. It would be advantageous for the students if the teacher set the quiz in the mode that allows students to review their answers or responses. The setting will ensure that the students give their honest replies since they are not forced to respond instantly, even if it is not their final answer due to time constraints. Likewise, it could also lessen the tension

and add pressure in taking the test.

(4) Develop a program that provides a way to access Canvas even with mobile data only. Include an app in Canvas that allows downloading of files offline. Teachers should upload materials one file at a time so the students would know which ones need to be studied first.

(5) Include an app in Canvas for teachers to check if the materials submitted by the students are original or are plagiarized. Add a feature like the students’ names change in color upon submitting course requirements. Include a “seen” feature for the inbox to inform the students if their teachers have already read the message they sent.

(6) Provide access to wifi connection in the loading bay or waiting area of school buses that fetch students in the afternoon to start working on their homework or assignments while waiting for their departure from school.

Following are the recommendations of the teachers:

Research question three: What are your suggestions for the improvement of the LMS?

- Provide teachers with ample training on the use of Canvas features (More engagement of teachers in “Growing with Canvas” and additional workshops/hands-on training.)
- Improve the school’s internet connection
- Conduct proper orientation for students on

how to use Canvas

- Limit the number of students enrolled in every course (at most 35 students per class).
- Teachers should give more engaging formative assessments (like interactive online games related to the topic) during face-to-face discussions.
- Provide a program that would develop the attitudes and values of the students (seminars/counseling on how to interact with others).
- Maintain a suitable combination of online and face-to-face discussions.
- Promote healthy and environment-friendly ways to use Canvas

In addition to the suggestions above given by the teachers during the interviews, the following recommendations were elicited from the FGD conducted:

(1) Introduce more options for dynamic and interactive activities with the students. Teachers can develop interactive activities using the system that would be most important, i.e., compatible software to embed a coding activity that would assess students in real-time.

(2) Canvas already contains the best features to enhance the teaching-learning processes, and what the teachers need is the maximum utilization of its features. It was also suggested to combine the best features of LMS and the traditional way to develop educational techniques to deliver the best possible teaching-learning results.

(3) Flipping the classroom using Canvas is help-

ful, but teachers must be properly and adequately trained on how to use it effectively to enjoy its full benefits. Facilitate systematic training on Canvas for the faculty members to be fully aware and equipped with the right skills.

(4) It would be a great help for the teachers if there is a way for them to block other websites which students can access when taking online quizzes.

(5) Increase the bandwidth for faster internet connection. When the teacher starts to access Canvas simultaneously with all the students in class, the internet speed slows down, making it difficult to download or view files.

(6) Undertake a collaborative project with other La Salle schools utilizing other LMS platforms to explore further platform versatility and stakeholders' engagement (including students, parents, and teachers).

The main objective of this study is to survey the students' and teachers' experiences of using Canvas, the LMS currently in use at the HEI in CALABARZON, to identify the strengths and the weaknesses of the system. The suggestions given provide useful implications and insights for the administrators to consider in planning future projects directed towards the improvement of the LMS.

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