
Implementation of Learning Management Systems amidst COVID-19 Crisis

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Abstract: COVID-19 has a huge impact on our educational system in the Philippines. After all, our dear President Duterte proclaimed an immediate Enhanced Community Quarantine in Central Luzon on March 17, 2020, which is extended up to April 30, 2020, that has been a deluge to our students because it needed to be temporarily suspended all classes at all levels. CHED.gov.ph (2020) Chairman Prospero De Vera issued an advisory to all Colleges and Universities that there is a need to “Deploy available distance learning, e-learning, and other alternative modes of delivery in place of residential learning if they have the resources to do so” so that the operations will still be continued.

The Researcher has tested the Learning Management Systems platform in the Philippine Merchant Marine Academy, San Narciso, Zambales, Central Luzon College of Science and Technology, Olongapo City, College of Subic Montessori, Subic Bay Freeport Zone, and Columban College Graduate School, Olongapo City. After the said deployment, the researcher also conducted an online survey regarding the usage of the Learning Management System using Google Form and uploaded it in Microsoft Excel to tally its results and interpretation. Thus it only shows that there is a need to use an alternative learning module or online learning system based on the advisory set by the CHED and also to test its effectiveness in terms of its speed, accuracy, reliability, and security. I used the minimum sample of 100% to get a significant result in terms of statistical treatment.

The Scope of the Learning Management Systems amidst the COVID-19 and the suspension of academic institutions are pushing for online learning. The use of a learning management system could help in the delivery of educational material paperless. For example, the lecture slides, power-points, tasks, learning activities, and learning outcomes could be uploaded in the virtual classroom. Learning Management Systems is one of the methods used as a substitute in the current conditions of the pandemic outbreak and the inability to be present in academic institutions because of the Enhanced Community Quarantine or lockdown imposed by the National Government.

Keywords: Learning Management Systems, COVID-19 Crisis

1 Introduction

COVID-19 has a huge impact on our educational system in the Philippines. After all, our dear President Duterte proclaimed an immediate Enhanced Community Quarantine in Central Luzon on March 17, 2020, which is extended up to April 30, 2020, that has been a deluge to our students because it needed to be temporarily suspended all classes at all levels. CHED.gov.ph (2020) Chairman Prospero De Vera issued an advisory to all Colleges and Universities that there is a need to “Deploy available distance learning, e-learning, and other alternative modes of delivery in place of residential learning if they have the resources to do so” so that the operations will still be continued.

The researcher came up with a plan in utilizing the use of Google Classroom and Moodle to facilitate as an alternative learning tool and to follow the advisory set by the regulating bodies. Google Classroom and

Moodle are an Open Source Learning Management System that can be utilized as an alternative tool in blended learning. Through my study, I will share my experiences the reasons for adopting Google Classroom and Moodle and how the Professors and Students used it, and its effectiveness and limitations from a teacher's perspective.

According to (Abazi-Bexheti et al., 2018), Learning Management systems “represent one of the main technology to support learning in institutions. However, every educational institution primarily differs its experience with the usage of these systems. Southeast European University's LMS experience is longer than a decade. From last year SEE – University is adopting Google Classroom as an alternative solution. Objectives: Identifying factors that encourage LMS activities, with special emphasis on their institution, might be of crucial importance for Sophisticated Education academic leaders as well as software developers who design tools related to fostering LMS. Methods/Approach”. It will answer the following research questions:

1. What is the profile of the user in terms of courses and institutions?
2. Does the Learning Management System provides the following functions:
 - a. activities
 - b. Auto checking of attendance
 - c. specific instructions
 - d. Assessment method
3. How do you see the scope of the Learning Management System in the amidst of COVID-19?

2 Methodology

The Researcher has tested the Learning Management Systems platform in the Philippine Merchant Marine Academy, San Narciso, Zambales, Central Luzon College of Science and Technology, Olongapo City, College of Subic Montessori, Subic Bay Freeport Zone, and Columban College Graduate School, Olongapo City. After the said deployment, the researcher also conducted an online survey regarding the usage of the Learning Management System using google form and uploaded it in Microsoft Excel to tally its results and interpretation. Thus it only shows that there is a need to use an alternative learning module or online learning system based on the advisory set by the CHED and also to test its effectiveness in terms of its speed, accuracy, reliability, and security. I used the minimum sample of 100% to get a significant result in terms of statistical treatment.

One of the biggest matters which has a teacher at the University is how to find the most efficient way to administer their courses? With the aim of the students will interest and motivated to learn. The LMS google classroom was included also in physics III laboratory and mechanics II laboratory at the Universidad Industrial de Santander as an alternative to the Moodle platform, to give students another point of view about learning in the physics laboratories and those topics traditionally studied through blackboard. Google classroom has been accompanied by a methodology of continuous monitoring, stimuli, activities based on problem-solving and assignments to improve their writing skills. Also, google classroom created courses that were easy to follow. The methodology process that can proposed can be extrapolated to other experimental or theoretical subjects. Also, google classroom showed to be friendly to the environment, (Cristiano & Triana, 2019).

The Researcher uses a stratified sampling method that covers the entire population of the respondents.

3 Data Analysis

Profiling of the students who answered the questionnaire are the following:

Table 1: Profiling of Students per Courses and Institutions.

COLLEGES	STUDENTS	POPULATION	PERCENTAGE
Philippine Merchant Marine Academy	BS MAR-E	270	76.27
Central Luzon College of Science and Technology	BS MAR-E	40	14.12
	BSMT	10	
College of Subic Montessori	BSCA	10	2.82
Columban College Graduate School	MPM	2	6.78
	MBA	22	
	N	354	100%

Table 1: shows that there are 354 Students in four colleges, Philippine Merchant Marine Academy there are 270 (76.27), Central Luzon College of Science and Technology there are 50 (14.12), College of Subic Montessori there are 10 (2.82), while Columban College Graduate School there are 24 (6.78) who are using Learning Management Systems as alternative learning module.

In determining whether students' learning behavior can be extracted and visualized from action logs recorded by Moodle. The paper also tried to show whether there is a correlation between the activity level of students in online environments and their academic performance concerning final grade". (de Castro Junior, Medeiros, Honório, Sant'Ana & da Silva Santos, 2017), also agreed that the Learning Management System is "One of the most used LMS platforms is the Modular Object- Oriented Dynamic Learning Environment (Moodle). This article proposes to demonstrate how the Moodle platform was introduced in the subject of Stomatology through a clear and objective methodology. *Study Design*. In six months, 49 undergraduate students enrolled in the stomatology subject accessed Moodle platform 2067 times and performed 02 evaluation exams at the Discipline of Stomatology. Statistical analysis was performed by paired *t*-test (comparison between the number of access times before the first evaluation and number of access times before the second evaluation), Wilcoxon test and Pearson correlation test shows that correlation between the number of access times before the first evaluation and the first grade, correlation between the number of access times before the second evaluation and the second grade, and a correlation between the variation of the number of access times and the variation of the student's grade result, (Estacio & Raga Jr, 2017).

Table 2: Functionality of Learning Management Systems.

Sub Questions	Yes	No
Interactive activities	354	0

Autochecking of attendance	352	2
specific instructions	350	4
Assessment method	348	7

Table 2: Shows that the functionality of the Learning Management Systems is feasible because of the following results. For Interactive activities: 354 answers YES; Autochecking of attendance: 352 answers Yes and 2 says No; Specific Instructions: 350 answers Yes and 4 says No; while the Assessment Method results: 348 answers Yes and 7 says No. This means that the functionality of the Learning Management System is very effective. The key benefits of using the Learning Management Systems are hinged on the various areas of flexibility it offers teachers, students, and guardians. Communication outside the classroom can be facilitated through discussion forums, real-time messaging, video-conferencing, email, and announcement posts. The accessibility regardless of location promotes globalization with open and flexible learning environments. Assignments and course content can be accessed from home and away from home. Students have the opportunity to learn at their own pace and go back and review lessons and content as needed, (Reischl & Toro, 2020).

Because of the temporary suspension of the regular classes due to COVID-19, the immediate implementation of the Learning Management System using Google Classroom and Moodle was utilized and based. Using Learning Management Systems in educational sector has facilitated the communication between students and teachers and had streamlined new challenges as well. This research aims to investigate the role of LMS in the learning and teaching processes from student's and teacher's perspectives. We adopted a social constructivist worldview. We used an inductive qualitative approach, a single case study design and hermeneutical approach for analyzing the interviews and observation, (Jama & Shanaah, 2020). It only shows that Learning Management System can accurately and securely function as an Educational Tool while we are on the COVID-19 crises.

4 Results and Discussions

Table 1 shows how the users per courses and institution interact on the Learning Management Promptly and shows how they are interested using the new technology as mentioned by (Nash & Ann 2015), that “Despite the current drawbacks, online education is still the best prospect for the future provided the barriers of faculty assessment and course design are addressed. They are afraid of student evaluations and administrative disapproval are causing grade inflation while simultaneously influencing course design.” On Table 2 shows how effective the functionality of the Learning Management System in terms of the following: (1) Interactive Activities; (2) Autochecking of attendance; (3) Specific Instructions; and (4) Assessment Method, Most of the Students agreed how the system is easy to use and how it interacts quickly according to (Saba, 2012), Learning Management Systems,” The results indicated that system quality, information quality, and computer self-efficacy all affected system use, user satisfaction, and self-managed learning behavior of students”.

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