

Usability Evaluation of Google Classroom: Basis for the Adaptation of GSuite E-Learning Platform

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Abstract—Electronic learning is a technology learning that plays an important role in modern education and training. Its great contribution lies in the fact that content is available at any place and device from a fixed device to mobile device. Nowadays, education is accessible everywhere with the use of technology. There are several LMS (Learning Management Systems) available. One of the new tool available was released by Google under GSuite. Pangasinan State University is currently subscribed to GSuite for Education, and recently Google introduces Classroom as an eLearning platform for an educational institution. This research aims to evaluate the new product, its functionalities for the purpose of adapting and deployment. The main objective of this paper is to identify the usability and evaluation of the Learning Management System (LMS) Google Classroom, its functionalities, features, and satisfaction level of the students. Based from the result, the respondents agreed that GSuite classroom is recommended. The result of this study will be the proposed e-learning platform for Pangasinan State University, Lingayen Campus initially in the College of Hospitality Management, Business and Public Administration.

Keywords— eLearning, business administration, education

I. INTRODUCTION AND BACKGROUND OF THE STUDY

THE electronic learning platform is common nowadays, some users are even using social media in education as a tool. It is also included in NHERA-2 of the Commission on Higher Education provided information on priority research agenda, under Education Management, are institutional development studies [1]. Thus, this study was conducted to support the ongoing development of education in Pangasinan State University.

A. Statement of the Problem

Technology plays a vital role in education. There are researchers conducted that Social Media contributes to the

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development of collaborative learning [4], but due to its use, it also provides a distraction to learners. Several LMS (Learning Management System) solve this issue, but the cost of server and maintenance is another problem. Thus Google introduces a new tool that will help the educators to become more effective in learning.

B. Objectives of the Study

The objective of this study is to identify the usability of Google Classroom as an online learning tool. Evaluate Google classroom based on the feedback of the teachers, and lastly identify the usability and features of the tool based on students.

Aside from gathering the (1) profile of the respondents, this study sought to answer the two major question: (1) What is the level of usability based on the evaluation of students and faculty in academic activities and non-academic activities? (2) What are the user's online practices and overall satisfaction to Google Classroom?

C. Scope of the Study

The scope of this study is limited to the use and requirements of Pangasinan State University. The study was conducted during the summer class of BS Business Administration at the Main Campus.

II. REVIEW OF RELATED STUDY

Moodle is defined as “a learning platform designed to provide educators, administrators, and learners with a single robust, secure and integrated system to create personalized learning environments.” [2] There are several studies conducted related to Learning Management Systems, and Moodle is one of the free open sourced platforms. The study of Melton Jay entitled “The LMS Moodle: A usability evaluation”, the researcher examined the registration process and assignment submission module function on the usability Moodle. While respondents finished the task, one-half were not ready to finish the last undertaking of presenting a task. The explanation for the assignment was not finished by a few because of lack of experience in using LMS. [3]

III. RESEARCH METHODOLOGY

In order to determine the usability of Google Classroom as

an eLearning platform. The tool should be tested first. The researchers proposed to test Google Classroom as an eLearning tool during the Summer of 2017 of Pangasinan State University. A letter addressed to the College Dean were secured for the approval. Where three classes are proposed to use the eLearning Platform for assessment.

During the class, the students will be asked to sign up for Google account or use the existing account. The class code will be given to the student to enter the online classroom. While the faculty will upload all the required instructional material for the subject and will conduct academic and non-academic related activities. After the testing, a self-made questionnaire will be used to determine the usability based on the perception of students.

A. Sources of Data

Initially, the respondents should be come from 3 classes, while one faculty failed to apply Google Classroom in the class, 2 classes was the source of data for this study. The BSBA students of Pangasinan State University enrolled in the summer class of 2017 with the subject Economics with LRT and Basic Finance was the respondents of this study.

B. Data Processing

Instead of floating the questionnaire to the students using paper, google forms were used as a mode of answering the questionnaire. The result generated from the google forms will be used to interpret the data. The CSV format data was exported for pivot analysis using google sheets. Likert Rating Scale was used to determine the usefulness of Google Classroom.

TABLE I:
LIKERT RATING SCALE

Scale	Range	Interpretation
5	4.21 - 5.00	Extremely Useful
4	3.21 - 4.20	Useful
3	2.61 - 3.40	Neutral
2	1.81 - 2.60	Not Useful
1	1.00 - 1.80	Extremely Not Useful

IV. RESULTS

The results of the study are based on the respondents from the two classes during summer 2017. Students enrolled in Economics with LRT and Basic Finance was the respondents of this study with a total number of 59 students.

A. Profile of the Respondents

From the total of 59 respondents, 50.8% are female with a total number of 30 while 49.2% are male students. The majority of the respondents with 30.5% are from Lingayen, followed by 25.4% from Binmaley, while the rest are from the

other part of Pangasinan. Most of the respondents are Regular students or Blocked Section with a count of 36 or 61%. The majority of the respondents are BSBA Students while there is a sole BSHM student from the total respondents.

B. Usefulness of Google Classroom

Based on the total number of respondents, Most of the respondents agreed that Google Classroom is extremely useful in Assignments and Collaborative Learning with a weighted mean of 4.31 and 4.24 respectively. Additionally, Examination and Discussion got 59.3% and 52,5% respectively from the total respondents agreed that it is extremely useful. While Peer tutoring and the individual project were rated 3.86 and 3.95 by the total respondents as shown in Table 2. The total weighted mean for Academic Related Activities is 4.10 as Useful.

TABLE 2:
ACADEMIC RELATED ACTIVITIES

Activity	WM	Percentage	Interpretation
Discussion	4.19	5 = 52.5%	Useful
Quizzes	4.05	5 = 49.2%	Useful
Assignment	4.31	5 = 59.3%	Extremely Useful
Collaborative Learning	4.24	5 = 50.8%	Extremely Useful
Peer Tutoring	3.86	4 = 39.0%	Useful
Individual Project	3.95	5 = 37.3%	Useful
Group Project	4.07	5 = 42.4%	Useful
Examination	4.17	5 = 59.3%	Useful

TABLE 3:
NON-ACADEMIC RELATED ACTIVITIES

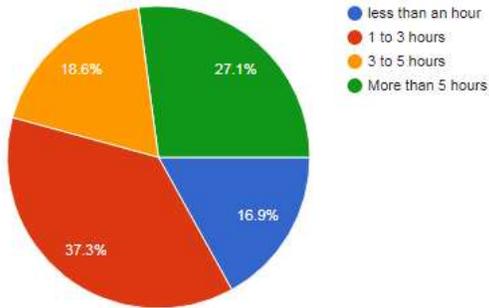
Activity	WM	Percentage	Interpretation
Announcements	4.39	5 = 69.5%	Extremely Useful
Posting of Results/Grades	4.32	5 = 66.1%	Extremely Useful

On the non-academic related activities, 69.5% and 66.1% agreed that Announcements and Posting of Results of Grades find it extremely useful with a weighted mean of 4.39 and 4.32. While overall weighted mean for the academic and non-academic activities is 4.15 with an interpretation of Useful.

C. Internet User's Usage and Overall Satisfaction

The students were asked on the number of years they are using the internet, Majority of the respondents with 44.1% used the internet for more than 5 years, followed by 3 to 5 years with 28.8%, and 1 to 3 years with 20.3%, the remaining percentage of 6.8% is using the internet for less than a year. The respondents were also asking on how many hours a day they spend online, the majority answered 1 to 3 hours a day with 37.3% of the total respondents.

59 responses



how many hours a day do you spend in eLearning related activities

59 responses

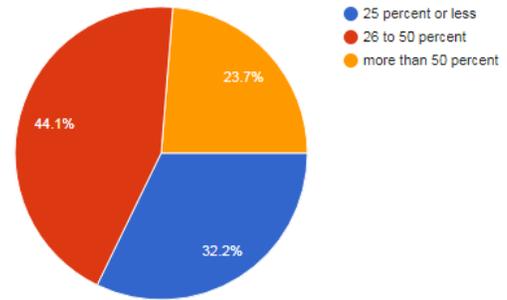


Fig. 1: Hours Spend by the users

The respondents are asked for the purpose of being online where they can select multiple answers and add more answers, 88.1% responded that they use the internet for Social Networking, 71.2% responded that they use the internet for online learning and research. 44.1% use the internet for music and video streaming and downloading, while only 13.6% use the internet for online buying or purchasing online. Lastly, there is a sole respondent that internet was used for bible study purposes.

Based on the total number of hours the respondent's used, 44.1% used the internet in eLearning related activities as shown in Table 1, this data shows that student uses the internet for educational related activities such as reading and research. While the internet is useful for the respondents, they still encountered problems, 77.3% encountered low or no internet connectivity, 27.3% has limited knowledge on the internet or computer.

On the level of satisfaction of using the Google Classroom, 94.9% agreed that they will recommend for online learning. 44.1 percent agreed that Google Classroom is highly recommended with a weighted mean of 4.15.

What is your level of satisfaction on the use of GSuite Classroom?

59 responses

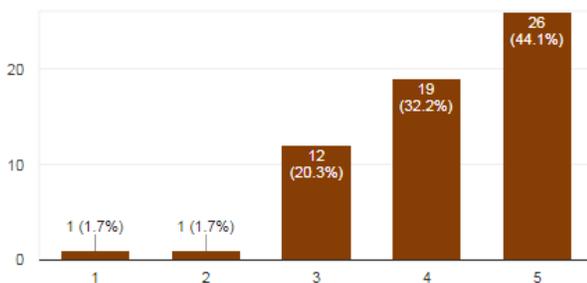


Fig. 2: Level of Satisfaction from the respondents

V. CONCLUSION AND RECOMMENDATION

In the conducted study, Google Classroom plays a great role in making learning more easily. Based on the result, Google Classroom is highly recommended from the respondents. Since this paper didn't target the 3 class as respondents, it is recommended to test during the 1st Semester of 2017-2018 to validate the reliability of the results.

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