



ASSESSING THE EFFECTIVENESS OF GOOGLE WORKSPACE AS A LEARNING MANAGEMENT SYSTEM

Marlit E. Encarnacion¹, Ruth B. Manding¹, Angelique R. Milarpis¹

¹Senior High School Department, Colegio de San Juan de Letran-Manila

Corresponding Author. Email: marlit.estorninos@letran.edu.ph

ABSTRACT

This study examines the effectiveness of Google Workspace as a Learning Management System (LMS) at Colegio de San Juan de Letran-Manila. As educational institutions in the Philippines have been increasingly adopting digital tools to support HyFlex and remote learning, understanding how educational platforms like Google Workspace influence teaching, learning, and administrative efficiency has become essential for the Colegio. Data from this research were collected through a cross-sectional survey of students, faculty, and staff using stratified sampling and analyzed using descriptive statistics and Likert-scale evaluations. The researchers focused on three key areas: user satisfaction with Google Workspace features, the platform's impact on collaboration and communication, and its role in the learning of students and the work efficiency of the employees. The results of this research indicated that Google Workspace is perceived as an effective LMS by all key stakeholder groups, offering high usability, functionality, and positive effects on both academic and institutional efficiency. Despite network connectivity issues and the influence of the stakeholders on platform engagement, the results affirm Google Workspace's value as an effective LMS for the Colegio. Furthermore, this study highlighted both the strengths of Google Workspace and identified specific areas for improvement, particularly concerning network infrastructure.

Keywords: Google Workspace, learning management system, educational technology, digital learning

INTRODUCTION

A Learning Management System (LMS) is described as a software application that enables companies and educational institutions to administer, track, and deliver educational courses and training materials (Hawley, 2024). LMS platforms have proven to be highly relevant in various industries, such as well like financial services, manufacturing, healthcare, retail, supply chain, beverage, franchise, and real estate. According to Rouse (n.d.), an LMS is a software application designed for the administration, documentation, tracking, reporting, automation, and delivery of educational courses, including training programs and learning materials. She further describes it as a centralized platform that allows users to access course content, submit assignments, and take assessments—all in one system. Additionally, LMS platforms often include features such as gamification, discussion boards, and performance analytics, which help enhance learner engagement and track progress more effectively (Indeed Editorial Team, 2023). According to Zimmerman (2023), LMS software streamlines training processes, reduces costs, and enables personalized learning paths through mobile compatibility, integrations with other systems, and easy content updates, making it an essential tool for modern learning and development strategies.

During the COVID-19 pandemic, mandatory closures to prevent the spread of the virus forced different institutions to rapidly adopt Learning Management Systems to continuously deliver education to learners as face-to-face classes were not possible. This caused a major educational crisis, with UNESCO estimating that approximately 1.6 billion learners were affected by these closures in April 2020 (Markelova, 2020). This sudden shift to remote learning was characterized by massive dependence on technology, especially on LMS platforms like Moodle, Canvas, Blackboard, and Google Classroom, which were implemented regardless of institutional resources or lack of faculty training in using them.

Research by Habibi et al. (2021) from Indonesia highlights how the expansion of mobile-LMS (m-LMS) facilitated distance learning for over 44 million students during the early months of the pandemic, promoting "functional and organized" online education despite connectivity challenges. In addition, Canani & Seymour (2021) emphasized in a case study conducted in South Africa that LMS served as vital communication hubs ("notice boards") and fostered institutional resilience—but also exposed inequalities related to device availability, data costs, and infrastructure.

In the Philippines, to sustain coursework delivery and student engagement during the COVID-19 pandemic, Legarde (2022) stated that Philippine schools immediately transitioned to fully web-based learning, using LMS to connect teachers and students despite limited ICT infrastructure. The study emphasized investing in ICT preparedness and capacity building to support this shift.

Colegio de San Juan de Letran – Manila also had to adapt to the "New Normal" brought about by the COVID-19 pandemic. To mitigate the impact of the health crisis on its learners, Letran Manila adopted Google Classroom as its Learning Management System (LMS) to facilitate remote teaching and learning. Google Classroom is a free, cloud-based digital learning platform that is part of Google Workspace for Education, and includes applications for video conferencing, word processing, and collaboration. The use of this platform also entailed utilizing the entire Google Workspace suite—such as Google Meet, Google Docs, Google Drive, and Gmail—for a more effective and efficient delivery of instruction and communication.

While the adoption of Google Workspace supported the continuity of learning during the pandemic, it also brought to light both its strengths and limitations. Understanding the advantages and disadvantages of this platform is essential to evaluating its overall effectiveness in supporting remote education.

Gana (2024) stated that in a country like Nigeria, Google Classroom is a practical and affordable solution for online learning, as it only requires a free Google account and does not entail any cost for schools. He noted that "Google Classroom is an effective and affordable online learning solution in Nigeria because it has many features and benefits that meet the needs and challenges of online learners and educators in Nigeria". He further explained that the platform's suite of features—such as its paperless structure, real-time communication tools, collaborative capabilities, and opportunities for creative and personalized instruction—address many of the challenges faced in the Nigerian context.

Furthermore, Gana (2024) also emphasizes that Google Classroom streamlines the entire assignment workflow—from creation and distribution to feedback—enabling teachers to track student performance, provide targeted support, and boost engagement through peer and instructor interaction, multimedia learning, and self-paced study.

Further, Google Classroom facilitates real-time communication through features such as announcements, comments, and private messaging, which help maintain student engagement (Luxwisp, 2024).

Luxwisp (2024) also added that one key advantage of Google Classroom is its accessibility. As a web-based platform, it can be accessed from any internet-connected device—whether a computer, tablet, or smartphone—allowing students to participate in learning from virtually any location. This flexibility helps remove physical barriers and supports a more inclusive educational environment.

While Google Classroom promotes accessibility as one of its key advantages, this same feature can also present a disadvantage. In countries with unreliable or limited internet access—such as the Philippines—its dependence on a stable internet connection poses a significant challenge for both teachers and students.

In the Philippines, remote learning during the COVID-19 lockdowns was significantly impeded by infrastructure challenges. According to a study by Teräs et al. (2020), at one University of the Philippines campus, approximately 41% of undergraduate students lacked internet access, while 51% of faculty relied on capped mobile data, resulting in unreliable connectivity and frequent disruptions during synchronous classes. A qualitative study of Cahapay & Rotas (2020) with Philippine university students revealed that unstable internet, along with power interruptions and inadequate learning resources, were among the most significant challenges encountered during remote instruction.

Moreover, data from the Department of Education and the Department of Information and Communications Technology indicate that as of September 2, 2022, only 1.8% of public schools in the Philippines were connected to free public Wi-Fi. Additionally, historical records show that only about 26% of public schools had any form of internet connectivity, highlighting the significant challenges in implementing synchronous online learning nationwide.

Additionally, Google Classroom is lacking in advanced analytics, gradebook flexibility, built-in quizzes/tests, forums, and gamification found in full-featured LMS platforms like Moodle or Canvas. For instance, Park (2025) highlights that Classroom does not offer detailed analytics, robust activity logging, or extensive engagement tools, whereas Canvas provides "detailed insights into student progress," advanced assessment options, peer-review activities, and multiple customization features.

Another notable drawback of Google Classroom is its inability to schedule the same assignment across multiple classes at once—teachers must create or schedule the assignment separately for each class (Park, 2025). This can be a challenge for teachers, especially with limited knowledge and training on the use of an LMS, particularly with Google Classroom.

Although many studies have discussed LMS and the use of Google Classroom during the pandemic, most of them focus on its general effectiveness, accessibility, and role in keeping education going across different countries. These studies identify both the strengths and challenges of LMS use, but few look closely at the actual experiences of teachers and students within a specific institution, especially in private higher education settings in the Philippines. Much of the existing research discusses internet access, infrastructure, and platform features in broad terms, without showing how these factors affect everyday teaching, student participation, and the overall learning process. Because of this, there is a need to examine how Google Classroom is really being used in a particular school setting, such as Colegio de San Juan de Letran – Manila, to better understand the strengths, limitations, and areas that may need further improvement based on the experiences of its users.

Significance of the Study

With the increased integration of different digital platforms in educational institutions, the understanding of their impact, specifically the Google Suite, on students' learning and engagement, and employee efficiency and effectiveness, is vital. The findings of this study will provide teachers with guidelines on how to effectively utilize Google Workspace to enhance their teaching strategies and communication styles in a virtual setting. Moreover, the findings will also provide data on how Google Workspace aids in employee performance in executing tasks. Lastly, it will also be relevant to Colegio de San Juan de Letran in improving the allocation of digital tools and addressing issues and concerns with regard to the utilization of digital management systems and tools.

Research Questions

How effective is Google Workspace for Education as an educational resource at Colegio de San Juan de Letran in enhancing student learning, improving faculty efficiency, and fostering collaboration among students, faculty, and employees?

Theoretical Background

Theoretical Contribution

The study is based on the Technological Pedagogical Content Knowledge (TPACK) framework. According to Mishra & Koehler (2006), the TPACK framework highlights the teacher's need for a holistic understanding of technology, pedagogy, and content to be perceived as effective. Koh et al. (2014) also added that teachers who are proficient in technological tools achieve greater success in meeting their subject matter's learning outcomes. Therefore, it plays a relevant role in the way teachers engage with their students and in delivering the content of their subject matter. Technological resources such as computers, television units, and other infrastructure can significantly impact a teacher's overall performance and experience, improve lesson delivery, and engage students' participation. Nonetheless, the lack or absence of these technological resources can cause frustration and stress to its users. In addition, other factors like technical support and proficiency may also be an issue.

Literature Review

Based on the study by Akcil et al. (2021), institutions are working to effectively maintain the distance learning of students by utilizing the infrastructures, digital tools, and equipment they have developed. In the 21st century, teachers need to be equipped to effectively incorporate instructional technology into their teaching methods. However, even with significant investments in technology at schools, training and professional development for teachers in technology integration and pedagogical practices often fall short. As Lossec & Millar (2021) stated, the pandemic served as a catalyst for a significant surge in users as governments across the globe scrambled to find solutions that would facilitate remote learning. The global health crisis created an urgent need for educational continuity, and technology emerged as a crucial tool to ensure that students could continue their education from home. As a result, the demand for online learning platforms and resources skyrocketed, leading to a rapid increase in user numbers. Given the widespread use of Google Classroom, teachers are increasingly familiar with its capabilities and feel a sense of ownership over their accounts. However, the platform's extensive features necessitate formal training programs for schools to ensure educators can effectively utilize all its tools. Moreover, based on Fauziah & Nugroho's (2024) study, educational technology is often overlooked because educators and school staff may not have a sufficient understanding of available tools, such as Google Workspace for Education. Additionally, they also stated that if educators and school staff were more technologically proficient and could effectively integrate technology into their teaching, students would likely embrace it more readily, leading to a more engaging learning experience. Lastly, Balsicas et al. (2022) reiterated that many students find online courses challenging due to the complexity of navigating various learning platforms across different higher education institutions in the Philippines. The need to adapt to multiple platforms can be overwhelming and can hinder the learning process. Additionally, both students and teachers often struggle to keep up with the fast-paced nature of online learning. The asynchronous nature of online courses can make it difficult to stay engaged and motivated, especially without the in-person interaction and structure provided by traditional classrooms. These factors collectively contribute to the challenges students and teachers face in achieving success in online learning environments.

METHODS

Research Design

This study employed a quantitative research design to evaluate the effectiveness of Google Workspace as a Learning Management System (LMS) within the academic and administrative environment of Letran Manila. The quantitative approach was selected to allow for the collection and analysis of measurable data related to users' experiences with the platform—specifically in terms of accessibility, functionality, usability, and its overall impact on educational outcomes, communication, and collaboration.

This research design enabled the researchers to systematically analyze how well Google Workspace addresses the educational and administrative needs of the institution. The findings aim to provide evidence-based insights that will support

institutional decisions regarding the continued implementation and optimization of the platform.

Respondents of the Study

The survey was distributed to members of the Letran Manila community who use Google Workspace in their academic or work-related activities. The target respondents included users from different departments and roles (students, faculty, and administrative staff) from different departments and levels to ensure broad representation across user groups.

From a total student population of 3,687, a sample of 973 students participated in the study. These were composed of 147 students from the Elementary level (K–6), 171 from Junior High School (Grades 7–10), 267 from Senior High School (Grades 11–12), 341 from the Collegiate level (1st to 5th year), and 47 from the Graduate School, including both MBA and DBA programs.

For the employee population, which totaled 370 individuals, 263 participated in the survey. This group consisted of 142 faculty members, 93 non-teaching personnel, and 28 administrators. Respondents came from various units to ensure representation across different roles and responsibilities within the institution.

Based on these figures, the student response rate was 26.39% (973 out of 3,687), while the employee response rate reached 71.08% (263 out of 370). In total, the study gathered 1,236 responses from a combined population of 4,057, resulting in an overall institutional response rate of 30.47%.

Although the student response rate was moderate, it falls within an acceptable range for large-scale survey research in educational settings. The high participation rate among employees strengthens the reliability of insights related to faculty and administrative use of Google Workspace. While non-response bias cannot be completely ruled out, the wide distribution of respondents across academic levels and job roles supports the representativeness of the data collected.

Research Instrument

A cross-sectional survey method was utilized for data gathering, allowing the researchers to capture the perceptions and experiences of participants at a specific point in time. The primary data collection tool was a structured questionnaire, adapted from the study of Sayed et al. (2022), titled "Exploring Architecture Students' Behaviour in Using Google Workspace for Design Studio Learning During the COVID-19 Pandemic." In their research, the instrument was used to examine students' experiences in using Google Workspace in terms of ease of use, communication, collaboration, task management, and overall satisfaction during remote learning.

Although the original instrument by Sayed et al. (2022) was designed for architecture students in design studios, it was modified to fit the context of Colegio de San Juan de Letran – Manila. Items specific to design studios were reworded for general academic and administrative tasks, statements were adjusted for students, faculty, and non-teaching staff, and minor revisions improved clarity. Additional questions were added to capture experiences across all groups and to address institutional support, collaboration, and administrative efficiency. The adapted questionnaire was reviewed for content validity and later tested for reliability using Cronbach's alpha. These changes were made to ensure that the tool remained relevant to the objectives of the study while still being grounded in an existing research instrument.

Data Analysis

Collected data were analyzed using descriptive statistics, specifically mean and standard deviation, to measure central tendencies and variability in user responses. These analyses provided insight into the overall effectiveness and user satisfaction with Google Workspace as an LMS within the institution.

RESULTS AND DISCUSSION

Table 1. Internal Consistency Reliability for Google Workspace Constructs (Administrators Group, n = 28)

Construct	No. of Items	Cronbach's α	Avg. r	S/N	Interpretation
Performance Expectancy	5	.93	.74	14.0	Excellent
Effort Expectancy	5	.85	.58	6.9	Good
Social Influence	5	.51	.26	1.8	Poor
Facilitating Conditions	6	.63	.26	2.1	Questionable
Hedonistic Value	4	.94	.80	16.0	Excellent
Learning Value	4	.95	.84	21.0	Excellent
Habit	4	.90	.71	9.9	Excellent
Behavioral Intention	4	.91	.71	9.7	Excellent

To assess the internal consistency of the measurement scales, Cronbach's alpha (α) coefficients were computed for each of the eight constructs. As shown in Table 1, the *Performance Expectancy* scale demonstrated excellent reliability, $\alpha = .93$, with a high average inter-item correlation ($r = .74$), indicating strong internal consistency among its five items. Similarly, the *Learning Value* ($\alpha = .95$), *Hedonistic Value* ($\alpha = .94$), *Habit* ($\alpha = .90$), and *Behavioral Intention* ($\alpha = .91$) scales also demonstrated excellent reliability, each exceeding the commonly accepted threshold of .90. Therefore, these scales are considered highly consistent for measuring the administrators' perceptions and intentions related to the use of Google Workspace.

The *Effort Expectancy* construct showed good internal consistency, $\alpha = .85$, with an average inter-item correlation of $r = .58$, suggesting that the items reliably reflect perceptions of ease of use of the Google Workspace. The *Facilitating Conditions* scale yielded a lower but acceptable alpha of .63, indicating questionable reliability. This suggests some item heterogeneity or potential influence of the reverse-coded item (connectivity issues, see Table 4, item 21), though the scale still warrants further analysis with caution.

In contrast, the *Social Influence* scale showed poor internal consistency, $\alpha = .51$. Inspection of item statistics revealed that item 14 (see Table 4) was negatively correlated with the first principal component and likely introduced measurement error. This suggests the need for item revision or reverse scoring to improve reliability in future use.

Table 2. Internal Consistency Reliability for Google Workspace Constructs (Faculty Group, n = 142)

Construct	No. of Items	Cronbach's α	Avg. r	S/N	Interpretation
Performance Expectancy	5	.94	.76	15.0	Excellent
Effort Expectancy	5	.97	.85	29.0	Excellent
Social Influence	5	.79	.50	5.1	Acceptable
Facilitating Conditions	6	.84	.56	7.5	Good
Hedonistic Value	4	.94	.79	15.0	Excellent
Learning Value	4	.94	.81	17.0	Excellent
Habit	4	.92	.76	13.0	Excellent
Behavioral Intention	4	.92	.75	12.0	Excellent

Cronbach's alpha coefficients were computed to assess the internal consistency of each construct measured in the survey for the faculty group. As shown in Table 2, results indicated that all constructs demonstrated acceptable to excellent reliability. *Performance Expectancy* yielded a Cronbach's alpha of .94, indicating excellent internal consistency. *Effort Expectancy* exhibited the highest reliability with $\alpha = .97$. *Hedonistic Value*, *Learning Value*, *Habit*, and *Behavioral Intention* also demonstrated excellent reliability, each with α values of .92 or higher. *Facilitating Conditions* showed good reliability ($\alpha = .84$), while *Social Influence* had acceptable internal consistency ($\alpha = .79$). All alpha values exceeded the recommended minimum threshold of .70 for internal consistency (Nunnally & Bernstein, 1994). Average inter-item correlations ranged from .50 to .85, supporting the one-dimensionality of each scale. These results support the reliability of instruments in capturing the intended constructs among faculty respondents.

Table 3. Internal Consistency Reliability for Google Workspace Constructs (Faculty Group, n = 142)

Construct	No. of Items	Cronbach's α	Avg. r	S/N	Interpretation
Performance Expectancy	5	.96	.84	26.0	Excellent
Effort Expectancy	5	.94	.77	17.0	Excellent
Social Influence	5	.83	.51	5.3	Good
Facilitating Conditions	6	.91	.69	13.0	Excellent
Hedonistic Value	4	.95	.83	19.0	Excellent
Learning Value	4	.96	.84	22.0	Excellent
Habit	4	.94	.79	15.0	Excellent
Behavioral Intention	4	.95	.83	20.0	Excellent

In the same manner, Cronbach's alpha coefficients were computed to assess the internal consistency of the survey constructs among nonteaching staff. As shown in Table 3, all eight constructs demonstrated good to excellent levels of reliability. *Performance Expectancy* ($\alpha = .96$), *Effort Expectancy* ($\alpha = .94$), *Facilitating Conditions* ($\alpha = .91$), *Hedonistic Value* ($\alpha = .95$), *Learning Value* ($\alpha = .96$), *Habit* ($\alpha = .94$), and *Behavioral Intention* ($\alpha = .95$) all exhibited excellent internal consistency ($\alpha \geq .90$), indicating strong agreement among their respective items. *Social Influence* ($\alpha = .83$) showed good reliability, suggesting consistent responses but comparatively lower cohesion among items than the other constructs. These results confirm that the instrument used was highly reliable for measuring the targeted constructs among the non-teaching staff group.

Table 4. Descriptive statistics summary of responses from administrators

	Mean	SD
Performance Expectancy	4.64	0.44
1. I find Google Workspace applications useful for my work tasks.	4.80	0.42

2.	Using Google Workspace improves my overall work performance.	4.60	0.52
3.	Google Workspace helps me complete my tasks more efficiently	4.70	0.48
4.	My productivity increases when I use Google Workspace.	4.60	0.52
5.	I can use Google Workspace without spending excessive time on it.	4.50	0.53
Effort Expectancy			
6.	I find it easy to learn how to use Google Workspace.	4.78	0.33
7.	My interactions with Google Workspace are straightforward and clear.	4.8	0.42
8.	I consider Google Workspace user-friendly.	4.9	0.32
9.	I can quickly become proficient in using Google Workspace.	4.6	0.48
10.	Using Google Workspace does not pose significant challenges in my work.	4.7	0.52
Social Influence			
11.	Colleagues encourage me to use Google Workspace in my work.	3.8	0.57
12.	People whose opinions I respect prefer that I utilize Google Workspace.	4.4	0.52
13.	My supervisors advocate for the use of Google Workspace.	4.2	0.63
14.	I would only use Google Workspace if it were absolutely necessary for my job.	4.3	0.95
15.	I would use Google Workspace primarily if required by my organization.	2.7	1.25
Facilitating Conditions			
		4.38*	0.39*
16.	have access to the resources needed to use Google Workspace effectively.	4.15**	0.39**
17.	I feel confident in my ability to utilize Google Workspace.	4.5	0.53
18.	Google Workspace integrates well with other tools I use in my work.	4.4	0.52
19.	My team provides effective support when I face challenges with Google Workspace.	4.2	0.63
20.	My organization offers sufficient resources for using Google Workspace effectively	4.4	0.70
21.	I often face connectivity issues that affect my ability to use Google Workspace.	4.4	0.52
		3.0**	0.94**
Hedonistic Value			
22.	Using Google Workspace for my work tasks is an enjoyable experience.	4.35	0.46
23.	I find using Google Workspace to be engaging and interesting.	4.3	0.48
24.	I do not feel frustrated or overwhelmed when using Google Workspace	4.4	0.52
25.	Google Workspace provides a level of interactivity that enhances my work experience.	4.4	0.52
Learning Value			
26.	Using Google Workspace is a valuable investment of my time and effort.	4.4	0.57
27.	Google Workspace facilitates knowledge sharing and collaboration with colleagues.	4.5	0.53
28.	Google Workspace allows me to control my workflow and pace.	4.4	0.70
29.	Google Workspace helps me track my progress through tasks and projects.	4.4	0.52
4.3		0.67	
Habit			
30.	Using Google Workspace has become a regular part of my work routine.	4.45	0.54
31.	I consistently engage with Google Workspace applications for my tasks.	4.6	0.52
32.	I feel reliant on Google Workspace to support my work.	4.4	0.70
33.	Using Google Workspace feels natural and intuitive to me.	4.5	0.53
4.3		0.67	
Behavioral Intention			
34.	I plan to continue using Google Workspace applications in the future.	4.25	0.60
35.	I intend to incorporate Google Workspace into my daily work activities.	4.4	0.70
36.	I prefer using Google Workspace over other platforms for my work needs.	4.3	0.67
37.	I plan to use Google Workspace applications regularly in my job.	4.0	0.67
4.3		0.67	

Note: *mean and standard deviation were computed using only items 16 to 20.** Item 21 was reverse coded before analysis so that higher scores consistently reflect more favorable facilitating conditions

Table 4 shows the descriptive statistical analysis conducted to examine how administrators at Colegio de San Juan de Letran perceive the effectiveness of Google Workspace in relation to three core areas: enhancing student learning, improving faculty efficiency, and fostering collaboration between institutional stakeholders (students, faculty, and employees). The analysis covered eight key constructs aligned with the conceptual framework, including *Performance Expectancy*, *Effort Expectancy*, *Learning Value*, *Habit*, *Facilitating Conditions*, *Social Influence*, *Hedonistic Value*, and *Behavioral Intention*.

Enhancing Student Learning

Administrators reported highly favorable perceptions regarding Google Workspace's capacity to support their work. The construct *Performance Expectancy* received strong agreement ($M = 4.64$, $SD = 0.44$), with high ratings on items such as "Google Workspace applications are useful for my work tasks" ($M = 4.80$) and "Google Workspace helps me complete my tasks more efficiently" ($M = 4.70$). These responses suggest that administrators view the platform as instrumental in promoting efficient operations and timely services, both of which indirectly support instructional quality and student experience. Furthermore, high scores on *Learning Value* ($M = 4.40$, $SD = 0.57$) indicate that administrators recognize the platform as not only productive but intellectually enriching. Notably, the item "Google Workspace facilitates knowledge sharing and collaboration with colleagues" ($M = 4.40$, $SD = 0.70$) highlights the platform's role in fostering a learning-conducive institutional culture—even outside the classroom context.

Improving Faculty Efficiency

Administrator responses underscore the usability and seamless integration of Google Workspace into routine workflows. *Effort Expectancy* was the highest-

rated construct overall ($M = 4.78$, $SD = 0.33$), with items such as "Google Workspace is user-friendly" and "I can quickly become proficient in using Google Workspace" both receiving mean scores of 4.90. These findings suggest that minimal training or technical support is required. This is crucial for supporting time-pressed faculty in adopting and maintaining digital tools. The construct of *Habit* ($M = 4.45$, $SD = 0.54$) indicates that Google Workspace is already integrated into the daily routines of administrators. This pattern, if mirrored by faculty, can promote long-term gains in instructional planning, communication, and content delivery. *Facilitating Conditions* ($M = 4.15$, $SD = 0.39$) further reinforces this view, with administrators agreeing that they have adequate resources and support to sustain platform use. However, the relatively lower score for connectivity reliability (Item 21: $M = 3.00$, $SD = 0.94$) points to occasional infrastructure issues that may inhibit faculty efficiency.

Fostering Collaboration

While the *Social Influence* construct yielded a moderate mean ($M = 3.80$, $SD = 0.57$), administrators agreed that peer and leadership encouragement is present (e.g., "Colleagues encourage me to use Google Workspace", $M = 4.40$). Items reflecting external compliance-based motivation, such as "I would only use it if required by my organization", received lower scores. This suggests that usage is more internally than externally driven. Meanwhile, the previously mentioned item on knowledge sharing (item 27: $M = 4.40$) and strong ratings on *Facilitating Conditions* and *Hedonistic Value* ($M = 4.35$, $SD = 0.46$) suggest that Google Workspace provides a collaborative and enjoyable environment. Participants also found the platform engaging (e.g., "Google Workspace enhances my work experience", $M = 4.40$), further indicating its potential to strengthen connections across institutional roles.

Finally, *Behavioral Intention* ($M = 4.25$, $SD = 0.60$) reflects a strong willingness among administrators to continue using the platform, with most respondents expressing their intent to integrate it into their daily activities (e.g., "I plan to use Google Workspace regularly in my job", $M = 4.30$). This long-term commitment bodes well for the sustainability of the platform as a digital backbone for communication, collaboration, and instructional support.

Table 5. Descriptive statistics summary of responses from faculty

	Mean	SD
Performance Expectancy		
1.	4.5	0.65
1.	4.6	0.67
2.	4.4	0.78
3.	4.6	0.69
4.	4.6	0.69
5.	4.5	0.82
Effort Expectancy		
6.	4.5	0.66
7.	4.6	0.70
7.	4.5	0.66
8.	4.6	0.72
9.	4.6	0.70
10.	4.5	0.72
Social Influence		
11.	3.9	0.80
11.	4.4	0.81
12.	4.5	0.70
13.	4.4	0.81
14.	3.5	1.35
15.	2.9	1.46
Facilitating Conditions		
16.	4.3	.64
16.	4.5	0.70
17.	4.5	0.66
18.	4.4	0.76
19.	4.4	0.79
20.	4.4	0.85
21.	3.8	1.28
Hedonistic Value		
22.	4.2	0.78
22.	4.3	0.80
23.	4.2	0.85
24.	4.1	0.87
25.	4.1	0.89
Learning Value		
26.	4.4	0.7
26.	4.4	0.76
27.	4.5	0.72
28.	4.4	0.75

29. Google Workspace aids in tracking student progress through assignments and assessments.	4.4	0.78
Habit	4.5	0.68
30. Using Google Workspace has become a regular part of my teaching routine.	4.6	0.76
31. I consistently engage with Google Workspace applications in my academic work.	4.6	0.70
32. I feel compelled to use Google Workspace to enhance my teaching.	4.3	0.85
33. Utilizing Google Workspace feels intuitive and natural to me.	4.4	0.72
Behavioral Intention	4.4	0.73
34. I plan to continue using Google Workspace applications in my future courses.	4.5	0.72
35. I intend to integrate Google Workspace into my daily teaching activities.	4.5	0.74
36. I prefer using Google Workspace over other platforms for my teaching needs.	4.2	0.98
37. I anticipate using Google Workspace applications regularly in my academic practice.	4.4	0.79

To examine the perceived effectiveness of Google Workspace in the educational practices of faculty at Colegio de San Juan de Letran, descriptive statistics were computed for each construct. The results, as shown in Table 5, reveal generally high levels of agreement across all dimensions, suggesting that faculty respondents view Google Workspace as an effective tool for teaching and learning.

Enhancing Student Learning

The construct *Performance Expectancy* had a high overall mean of 4.5 (SD = 0.65), indicating that faculty perceive Google Workspace as beneficial in enhancing student learning outcomes. The means of individual items ranged from 4.4 to 4.6, with the highest-rated items reflecting improved productivity and efficiency in facilitating learning tasks. Similarly, *Learning Value* received a high mean rating of 4.4 (SD = 0.70), indicating that faculty members consider Google Workspace a worthwhile investment of time and effort. They particularly value its usefulness in tracking student progress and supporting personalized teaching approaches.

Improving Faculty Efficiency

The construct *Effort Expectancy* was also rated highly, with a mean of 4.5 (SD = 0.66), indicating that the faculty find GW easy to learn, use, and integrate into their teaching routines. The average rating for *Facilitating Conditions* was 4.3 (SD = 0.64), reflecting positive perceptions of institutional support and infrastructure, though some variability was noted due to connectivity issues (M = 3.8, SD = 1.28). The *Habit* construct, with a mean of 4.5 (SD = 0.68), further supports the notion that Google Workspace has become a routine and intuitive part of faculty members' instructional practices.

Fostering Collaboration

The construct *Social Influence* had a comparatively lower mean of 3.9 (SD = 0.80), indicating moderate perceptions of peer encouragement and institutional pressure to use the platform. While most items within this construct received relatively high scores (e.g., "My department encourages the integration of Google Workspace in our course," M = 4.5, SD = 0.70), items indicating external pressure or obligation (e.g., "I feel pressured to use Google Workspace because it's expected by the institution," M = 2.9, SD = 1.46) received notably lower ratings. This may suggest that usage is largely voluntary and internally motivated. Nevertheless, the presence of social and departmental support remains evident.

The highest-rated item in the *Learning Value* construct was the statement that Google Workspace facilitates knowledge sharing and discussion among faculty and students (M = 4.5, SD = 0.72). This suggests that the faculty respondents value Google Workspace also for its role in promoting collaborative learning environments.

User Satisfaction and Continued Use

The *Hedonistic Value* construct, with a mean of 4.2 (SD = 0.78), reflects generally positive experiences in terms of enjoyment, engagement, and interactivity when using Google Workspace. Lastly, *Behavioral Intention* was rated highly (M = 4.4, SD = 0.73), indicating a strong intention among faculty members to continue integrating Google Workspace into their future academic practices.

Table 6. Descriptive statistics summary of responses from nonteaching faculty/employees

	Mean	SD
Performance Expectancy	4.6	.62
1. I find Google Workspace applications beneficial for my work tasks.	4.7	.62
2. Using Google Workspace improves my overall work performance.	4.6	.66
3. Google Workspace helps me complete my tasks more efficiently.	4.6	.64
4. My productivity increases when I use Google Workspace.	4.5	.67
5. I can use Google Workspace without spending excessive time on it.	4.5	.74
Effort Expectancy	4.4	.64
6. I find it easy to learn how to use Google Workspace.	4.5	.65

7. My interactions with Google Workspace are straightforward and clear	4.5	.67
8. I consider Google Workspace user-friendly.	4.5	.69
9. I can quickly become proficient in using Google Workspace.	4.4	.70
10. Google Workspace does not pose significant challenges in my work.	4.2	.83
Social Influence	4.1	.71
11. Colleagues encourage me to use Google Workspace in my work.	4.2	.78
12. People whose opinions I respect prefer that I utilize Google Workspace.	4.2	.78
13. My supervisors advocate for the use of Google Workspace.	4.2	.86
14. I would only use Google Workspace if it were absolutely necessary for my job.	3.9	1.12
15. I would use Google Workspace primarily if required by my organization.	4.0	1.04
Facilitating Conditions	4.2	.66
16. I have access to the resources needed to use Google Workspace effectively.	4.4	.69
17. I feel confident in my ability to utilize Google Workspace.	4.3	.68
18. Google Workspace integrates well with other tools I use in my work.	4.4	.72
19. My team provides effective support when I face challenges with Google Workspace.	4.3	.78
20. My organization offers sufficient resources for using Google Workspace effectively.	4.3	.74
21. I often face connectivity issues that affect my ability to use Google Workspace.	3.6	1.10
Hedonistic Value	4.3	.67
22. Using Google Workspace for my work tasks is an enjoyable experience.	4.4	.71
23. I find using Google Workspace engaging and interesting.	4.4	.71
24. I do not feel frustrated or overwhelmed when using Google Workspace.	4.2	.76
25. Google Workspace provides a level of interactivity that enhances my work experience.	4.4	.69
Learning Value	4.4	.65
26. Using Google Workspace is a valuable investment of my time and effort.	4.4	.70
27. Google Workspace facilitates knowledge sharing and collaboration with colleagues.	4.5	.67
28. Google Workspace allows me to control my workflow and pace.	4.3	.71
29. Google Workspace helps me track my progress through tasks and projects.	4.4	.70
Habit	4.4	.68
30. Using Google Workspace has become a regular part of my work routine.	4.5	.71
31. I consistently engage with Google Workspace applications for my tasks.	4.4	.74
32. I feel reliant on Google Workspace to support my work.	4.3	.75
33. Using Google Workspace feels natural and intuitive to me.	4.3	.78
Behavioral Intention	4.4	.66
34. I plan to continue using Google Workspace applications in the future.	4.5	.67
35. I intend to incorporate Google Workspace into my daily work activities.	4.4	.70
36. I prefer using Google Workspace over other platforms for my work needs.	4.3	.74
37. I plan to use Google Workspace applications regularly in my job.	4.4	.70

The descriptive statistics of non-teaching staff's responses, as shown in Table 6, provide insights into their perceptions of the effectiveness of Google Workspace as an educational resource at Colegio de San Juan de Letran.

Improving Workplace Efficiency

Among the constructs measured, *Performance Expectancy* received the highest overall mean (M = 4.6, SD = 0.62), indicating that non-teaching personnel perceive Google Workspace as highly effective in supporting the completion of work-related tasks efficiently and productively. *Effort Expectancy* (M = 4.4, SD = 0.64) was also rated highly, suggesting that staff found the platform easy to learn, intuitive, and minimally challenging to use. This ease of use likely facilitates broader adoption and regular usage, reinforcing GW's role in enhancing workplace efficiency. Similarly, *Facilitating Conditions* (M = 4.2, SD = 0.66) indicated that institutional support and infrastructure are perceived as generally adequate, although some concern was noted regarding connectivity issues (Item 21, M = 3.6, SD = 1.10).

Fostering Collaboration and User Satisfaction

While *Social Influence* received a slightly lower mean score (M = 4.1, SD = 0.71), the responses still indicate that encouragement from colleagues and supervisors plays a role in the adoption of GW for work. The constructs of *Learning Value* (M = 4.4, SD = 0.65) and *Hedonistic Value* (M = 4.3, SD = 0.67) suggest that non-teaching staff find the use of Google Workspace not only beneficial to their professional development but also enjoyable and engaging. These perceptions support continued usage and positive attitudes toward the platform. Additionally, *Habit* (M = 4.4, SD = 0.68) and *Behavioral Intention* (M = 4.4, SD = 0.66) reflect the integration of Google Workspace into the daily routines of non-teaching staff and their intention to maintain or even increase usage in the future.

Table 7. Descriptive summary of responses from students

	Mean	SD
Performance Expectancy	4.5	.61
1. I find Google Workspace applications useful for my learning.	4.7	.61
2. Using Google Workspace enhances my learning performance.	4.5	.68
3. Google Workspace helps me complete my learning tasks more quickly.	4.6	.71
4. Using Google Workspace increases my overall learning productivity.	4.5	.76
5. Using Google Workspace does not require excessive time from me.	4.3	.85
Effort Expectancy	4.4	.65
6. Learning how to use Google Workspace is easy for me.	4.4	.73
7. My interactions with Google Workspace are clear and understandable.	4.5	.71
8. I find Google Workspace easy to use.	4.5	.69
9. It is easy for me to become skilled at using Google Workspace.	4.4	.75
10. Using Google Workspace does not create significant challenges for my learning.	4.2	.92
Social Influence	4.2	.71
11. People important to me believe I should use Google Workspace for my studies.	4.2	.84
12. Those whose opinions I value prefer that I use Google Workspace.	4.2	.83
13. My teachers encourage the use of Google Workspace in my learning.	4.4	.72
14. I would only use Google Workspace if it were absolutely necessary for my studies.	4.0	1.11
15. I would only use Google Workspace if it were required in our subjects and by my teachers.	3.9	1.16
Facilitating Conditions	4.3	.61
16. I have access to the necessary resources to effectively use Google Workspace.	4.4	.71
17. I feel confident in my ability to use Google Workspace effectively.	4.4	.75
18. Google Workspace integrates well with other educational technologies I use.	4.5	.72
19. My teachers provide effective support when I encounter challenges with Google Workspace.	4.4	.77
20. The Colegio provides adequate support for using Google Workspace in my studies.	4.4	.75
21. I often experience connectivity issues that hinder my ability to use Google Workspace effectively.	4.0	1.04
Hedonistic Value	4.3	.70
22. Using Google Workspace for Education applications is an enjoyable experience.	4.4	.75
23. I find using Google Workspace to be engaging and interesting.	4.4	.76
24. Using Google Workspace does not leave me feeling frustrated or overwhelmed.	4.2	.89
25. Google Workspace provides a high level of interactivity that enhances my learning experience.	4.4	.77
Learning Value	4.5	.64
26. Learning through Google Workspace is a valuable use of my time and effort.	4.4	.71
27. Google Workspace enables me to easily share knowledge and engage in discussions with others.	4.5	.71
28. Google Workspace empowers me to control my own learning pace.	4.4	.78
29. Google Workspace helps me track my progress and understanding through quizzes, assignments, and assessments.	4.5	.70
Habit	4.4	.65
30. Using Google Workspace has become a regular part of my learning routine.	4.5	.72
31. I consistently engage with Google Workspace applications in my studies.	4.4	.70
32. I feel the need to use Google Workspace to support my learning.	4.4	.78
33. Using Google Workspace feels natural and intuitive to me.	4.4	.72
Behavioral Intention	4.4	.66
34. I plan to continue using Google Workspace applications in the future.	4.5	.70
35. I intend to incorporate Google Workspace into my daily academic activities.	4.4	.73
36. I prefer using Google Workspace over other platforms for my learning needs.	4.3	.83
37. I plan to use Google Workspace applications regularly in my studies.	4.5	.71

Table 7 shows the descriptive statistics analysis of student perceptions on the effectiveness of Google Workspace as an educational resource in enhancing student learning, improving faculty efficiency, and fostering collaboration among students, faculty, and employees. The study examined student perceptions across multiple constructs of *Performance Expectancy*, *Effort Expectancy*, *Social Influence*, *Facilitating Conditions*, *Hedonistic Value*, *Learning Value*, *Habit*, and *Behavioral Intention*.

Enhancing Student Learning

Students reported very positive perceptions regarding the role of Google Workspace in supporting and enhancing their learning experiences. The overall mean score for *Performance Expectancy* was high ($M = 4.5$, $SD = 0.61$), suggesting that students perceive Google Workspace applications as beneficial to learning productivity, efficiency, and task completion. This is further supported by strong item-level agreement, particularly on statements such as "I find Google Workspace applications useful for my learning" ($M = 4.7$, $SD = 0.61$).

Students also rated *Effort Expectancy* favorably ($M = 4.4$, $SD = 0.65$), indicating that they generally found Google Workspace easy to learn and operate. High agreement with items such as "I find Google Workspace easy to use" ($M = 4.5$, $SD = 0.69$) and "Learning how to use Google Workspace is easy for me" ($M = 4.4$, $SD = 0.73$) suggests that the platform does not present unnecessary

technical challenges. This ease of use likely contributes to sustained engagement, learning satisfaction, and a lower barrier to entry for digital tools, which makes GW an accessible platform that can support diverse learners.

Additionally, the construct *Learning Value* received the highest composite mean ($M = 4.5$, $SD = 0.64$). This indicates that students strongly value GW for facilitating meaningful engagement, knowledge sharing, and self-paced learning. The hedonistic aspect of learning was also favorably rated (*Hedonistic Value*, $M = 4.3$, $SD = 0.70$), reinforcing that students found GW enjoyable and engaging rather than overwhelming or frustrating. These results indicate that Google Workspace is perceived by students as an effective learning resource that enhances both the quality and enjoyment of academic engagement.

Improving Faculty Efficiency

While the primary respondents were students, their perceptions indirectly inform Google Workspace's effectiveness in supporting faculty teaching practices. The construct *Facilitating Conditions* ($M = 4.3$, $SD = 0.61$) reflects students' confidence in the technological and instructional support they receive. Notably, students agreed that teachers provide effective support (e.g., "My teachers provide effective support when I encounter challenges with Google Workspace," $M = 4.4$, $SD = 0.77$) and that the institution offers adequate infrastructure for seamless use. These findings suggest that faculty members are leveraging the platform effectively, thereby contributing to more efficient delivery of instruction and management of learning tasks.

Fostering Collaboration Between Students, Faculty, and Employees

Perceptions related to *Social Influence* ($M = 4.2$, $SD = 0.71$) and *Habit* ($M = 4.4$, $SD = 0.65$) offer insights into how embedded Google Workspace is in the institutional culture. Students indicated that important individuals in their academic life (teachers, peers) support the use of the platform. This aligns with collaborative practices where applications like Google Docs, Classroom, and Sheets facilitate shared workspaces and group accountability. Furthermore, the strong agreement with habitual use ("Using Google Workspace has become a regular part of my learning routine," $M = 4.5$, $SD = 0.72$) illustrates its integration into everyday academic interactions.

The construct *Behavioral Intention* also yielded a strong mean ($M = 4.4$, $SD = 0.66$), with students expressing clear intent to continue using Google Workspace in future learning endeavors. This implies sustained engagement and continued reliance on collaborative digital tools across institutional roles.

DISCUSSION

Google Workspace has been an effective Learning Management System among students, faculty, non-teaching faculty/employees, and administrators at Colegio de San Juan de Letran-Manila. Its perceived utility, ease of use, positive impact on learning and work efficiency, and strong user satisfaction are evident across all key stakeholders. The high reliability of most constructs, coupled with consistently positive mean scores for "Performance Expectancy," "Effort Expectancy," "Learning Value," "Hedonistic Value," "Habit," and "Behavioral Intention," indicates that Google Workspace is an efficient platform for the institution and has been helpful in its operations for teaching, learning, and administrative tasks. While the "Social Influence" construct revealed that internal motivation often outweighs external pressure, and persistent connectivity issues remain a challenge, the overall findings point to a positive trajectory for Google Workspace as a central digital tool. The study effectively highlights both the strengths of Google Workspace and specific areas for improvement, particularly concerning network and connectivity issues.

Nevertheless, in terms of actual learning benefits, the platform was rated very highly. Students view it as something that supports meaningful learning, allowing them to work at their own pace, and even makes learning more enjoyable. Aside from being useful, they also found it engaging and not stressful to use.

The findings also show that Google Workspace supports collaboration. According to the students, their teachers and classmates encourage using it. They have also made it part of their routine, using it often for group work and assignments. Their regular usage of Google Workspace suggests that it is deeply integrated into their academic experience.

Finally, students said they plan to keep using the platform in the future. Their positive experience with it and its usefulness in learning and collaboration make it a tool they're likely to continue relying on in school.

It is important to note that the interpretations in this section are based mainly on descriptive results, particularly the mean scores and the general patterns seen across the different groups. The study did not use inferential statistical tests to determine if the differences in responses among the sample groups were statistically significant. Similarly, the relationships among the different constructs were not examined. Because of this, the discussion focuses on overall trends and shared perceptions rather than direct comparisons between groups. Future studies may explore these areas further by using inferential analysis.

CONCLUSION

Based on the data gathered in this study, it is clear that Google Workspace has been successfully integrated into both the academic and administrative workflows at Colegio de San Juan de Letran. Elevated mean scores across key constructs—such as Performance Expectancy, Effort Expectancy, Learning Value, Hedonic Value, Habit, and Behavioral Intention—reflect a consistently positive perception regarding the platform's usefulness, ease of use, and overall user satisfaction. Many also noted how Google Workspace helped them communicate more easily, stay organized, and work better together, which has been especially helpful in hybrid and remote learning environments.

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