

# Utilization of Learning Management System (LMS) and Teachers' Perceived Performance in the Online Learning Modality in President Ramon Magsaysay State University North Campuses

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## ABSTRACT

A Learning Management System provides a centralized platform for course management, content delivery, and student engagement. This study is entitled Utilization of Learning Management System (LMS) and Teachers' Perceived Performance in the Online Learning Modality at President Ramon Magsaysay State University North Campuses. It is descriptive research with a questionnaire as the main instrument in gathering data. The sampling technique was population sampling, hence the fifty-seven (57) teachers of the North Campus at President Ramon Magsaysay State University.

The statistical tools used were frequency distribution, percentage, mean, analysis of variance (ANOVA), and Likert scale. A study involving an early-adult female teacher aged 21-25, with an MA, found that accessibility features were highly rated. The study found no significant correlation between faculty performance in online learning and their use of Learning Management Systems (LMS). The reliability of LMS usage was not significantly influenced by factors such as age, gender, educational attainment, number of subjects handled per semester, or trained attendees. The study suggests that implementing a training program can help educators design dynamic virtual learning environments, leading to better learning results. Funding such programs can also advance online learning.

## INTRODUCTION

### Objective

This study aimed to evaluate the utilization of the Learning Management System (LMS) and teachers' perceived performance in the online learning modality at President Ramon Magsaysay State University (PRMSU) North Campuses.

### Significance

The transition to online learning has transformed the educational landscape, compelling teachers to adopt new tools and strategies for instruction. At the forefront of this shift is the Learning Management System (LMS), which serves as a digital hub for managing lessons, assessments, and communication between teachers and students. In President Ramon Magsaysay State University (PRMSU) North Campuses, the utilization of LMS has become increasingly vital in maintaining instructional quality and continuity, especially during and after the COVID-19 pandemic. However, the effectiveness of online learning greatly depends on how efficiently teachers use LMS platforms and how they perceive their own performance in this environment.

This study is significant because it seeks to determine the relationship between LMS utilization and teachers' perceived performance in the online learning modality. Understanding this connection can help identify areas where teachers excel and where additional training or support may be needed. The findings will provide valuable insights for administrators and policymakers in designing professional development programs that enhance teachers' digital competence, confidence, and overall teaching effectiveness.

Moreover, this research contributes to the growing body of literature on technology integration in education. It will offer practical implications for improving online teaching practices, fostering more interactive and engaging virtual classrooms, and ensuring that digital tools like LMS are effectively maximized. Ultimately, the study aims to support PRMSU in its commitment to academic excellence by promoting a culture of continuous improvement and innovation in online education.

### Statement of the Problem

This study aimed to evaluate the utilization of learning management system (LMS) and teachers' perceived performance in the Online learning modality.

Specifically, it sought answers to the following questions:

What is the profile of the respondents in terms of:

1. age;
2. gender;
3. civil status;
4. highest educational attainment;
5. years in service;
6. numbers of subject handled per semester; and
7. numbers of trainings attended on LMS?

How may the extent of learning management system utilization be described in terms of:

1. accessibility;
2. reliability?

What is the level of the faculty performance from January to June 2023?

Is there a significant difference on the extent of learning management system utilization when the respondents are grouped according to profile variables?

What program to be proposed based on the study?

## METHODOLOGY

The study employed a descriptive research design. Descriptive research aims to gather data in a methodical manner in order to characterize a population, circumstance, or phenomena. More precisely, it assists in providing answers to the research problem's what, when, where, and how inquiries as opposed to its why. Descriptive Research Design (2021). The survey was conducted among teachers on the North Campus of President Ramon Magsaysay State University.

The survey included questions regarding their usage and utilization of learning management systems, their knowledge and skills in using overall satisfaction with the systems. The survey used Likert-scale questions to measure various factors such as ease of use, effectiveness, and level of training received. Quantitative phenomenological research is more concerned with understanding, what is happening as viewed by the participants. The purpose of quantitative studies is to develop ideas and theories about human experience rather than quantified, replicable, comparisons of identified groups of people.

### Theoretical Framework

It's clear that technology is changing how students learn in and out of the classroom. Rather than learning from teachers and textbooks, smartphones and laptops serve as hubs of information for today's students. In fact,

according to a 2015 study, 87% of college students reported that they used a laptop every week for schoolwork, while 64% reported using their smartphone for schoolwork.

The study on the utilization of learning management systems (LMS) and teachers' perceived performance in the online learning modality was supported by the following theoretical underpinnings: Moore's Theory of Transactional Distance, Traditional Pedagogy Theory, Behavioral Learning Theory, The Theory of Cognitivism, Social Constructivist Theory.

### **Moore's Theory of Transactional Distance**

Moore's theory of transactional distance, first formulated in 1997, explains the relationship between instructor and student in online learning situations with significant physical or temporal distance. Communicative distance, a psychological or communicative space, separates instructors and learners in structured learning situations. (Moore, 1997, p.1).

### **Traditional Pedagogy Theory**

Traditional pedagogy focuses on the teaching environment and learning frameworks, but has evolved to include online methods. Teaching tips and suggestions for teachers in various learning environments are provided. Effective teaching methods must be tailored to the learner to maximize engagement and impact student mastery outcomes.

### **Behavioral Learning Theory**

Behaviorism is a learning theory that asserts that all behavior is learned through interaction with the environment, with innate factors having minimal influence. It emphasizes positive reinforcement as a means to improve behavior. This theory is crucial for educators, as it influences classroom behavior and helps teachers understand the impact of home environment and lifestyle on student behavior.

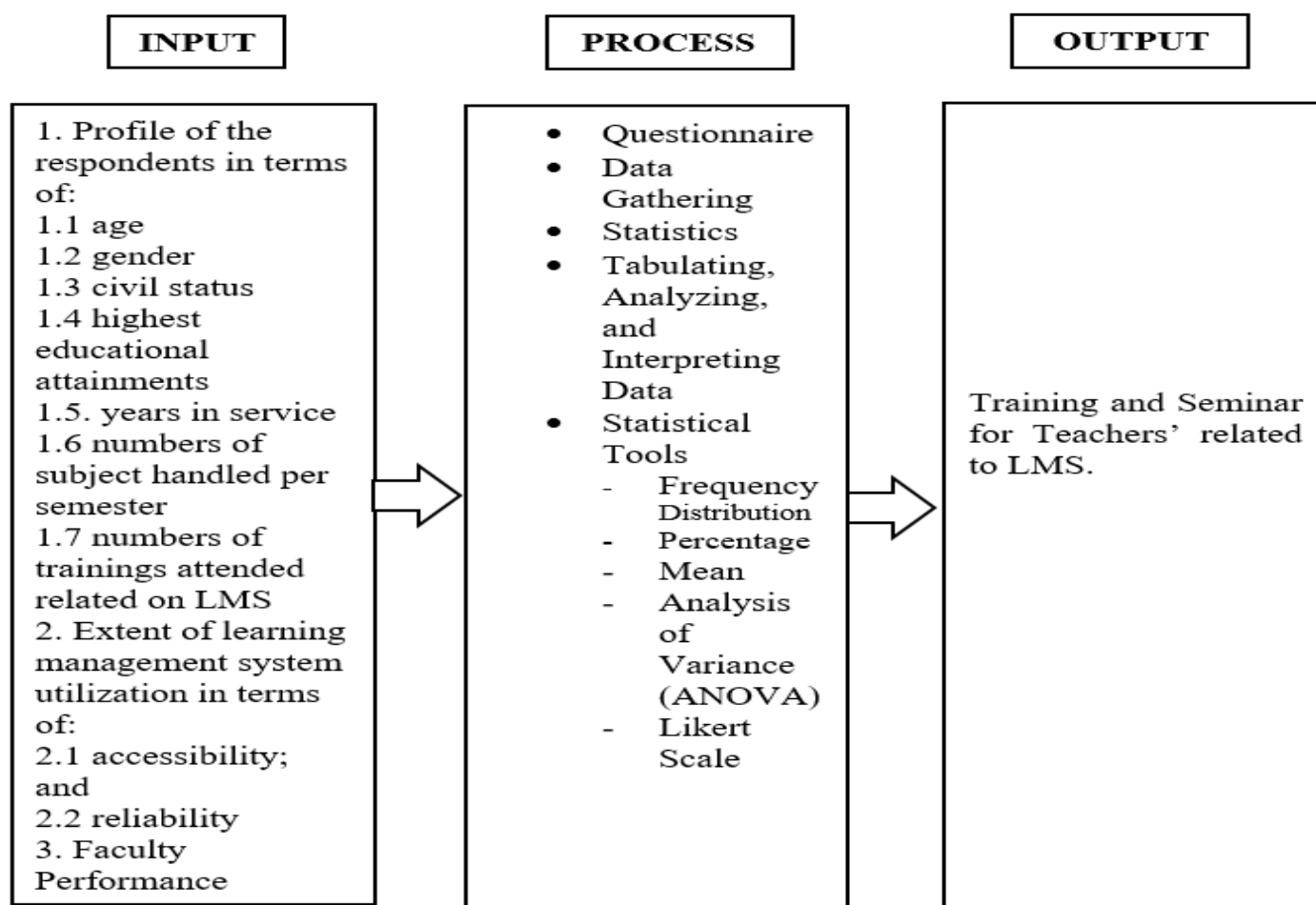
### **The Theory of Cognitivism**

The theory of cognitivism developed in response to behaviorism and gained credibility in the 1950s. Cognitivists opposed behaviorists, believing learning is a response to stimulus and ignoring thinking. Piaget's constructivism views knowledge as symbolic mental structures, and as neuroscientists explore brain functions, educators and cognitive psychologists explore how to apply this knowledge in the classroom.

### **Conceptual Framework**

The conceptual framework of the study presents specifics and well-defined concepts which are called construct. This can be best explained in the paradigm below.

**Figure 1** Paradigm of the Study



As shown in Figure 1, the input variables consist of the profile respondent such as the age; gender; civil status; highest educational attainment; years in service; numbers of subject handled per semester; and numbers of trainings attended related on LMS. The learning management system be evaluated in terms of accessibility and reliability. Significant difference on the extent of learning management system utilization when the respondents are grouped according to profile variables. Significant relationship between the utilization of LMS and faculty performance and what program to be proposed based on the study. It consists of how data well gathered through questionnaire.

## RESULTS AND DISCUSSION

This chapter presents the results and interpretation of the findings based on collected data, related literature and studies, and the researcher's observations and actual experience.

### Profile of the Respondents

Table 2 shows the frequency and percentage distribution of the respondents' as to age, gender and civil status.

**Table 2** Frequency and Percentage Distribution of the Respondents' Profile

| Age               | Frequency | Percent |
|-------------------|-----------|---------|
| 21 - 25 years old | 16        | 28      |
| 26 - 30 years old | 12        | 21      |
| 31-35 years old   | 15        | 26      |

|                                   |                  |                |
|-----------------------------------|------------------|----------------|
| 36-40 years old                   | 7                | 12             |
| 41 above                          | 7                | 12             |
| <b>Total</b>                      | <b>57</b>        | <b>100</b>     |
| <b>Mean Age = 31.60 years old</b> |                  |                |
| <b>Gender</b>                     | <b>Frequency</b> | <b>Percent</b> |
| Male                              | 14               | 24.6           |
| Female                            | 40               | 70.1           |
| LGBTQ+                            | 3                | 5.3            |
| <b>Total</b>                      | <b>57</b>        | <b>100</b>     |
| <b>Civil Status</b>               | <b>Frequency</b> | <b>Percent</b> |
| Single                            | 35               | 61.4           |
| Married                           | 21               | 36.8           |
| Widow/Widower                     | 0                | 0              |
| Separated                         | 1                | 1.8            |
| <b>Total</b>                      | <b>57</b>        | <b>100</b>     |

Table 2. The demographic data reveal that the majority of teachers utilizing the Learning Management System (LMS) for online learning are young educators, with 28% aged 21–25, followed by 26% aged 31–35, and 21% aged 26–30. The average age is 31.6 years, indicating that younger teachers are more engaged in using LMS platforms. This suggests that training and LMS design should consider digital-native users while also supporting older educators through targeted capacity-building programs.

In terms of gender, female teachers constitute the majority (70.1%), followed by males (24.6%), and LGBTQ+ teachers (5.3%). This reflects the general trend of female dominance in the teaching profession and suggests that women may be more active or adaptable in online learning environments. The findings emphasize the importance of ensuring that LMS platforms remain inclusive and gender-sensitive, catering to diverse user needs and preferences.

Regarding civil status, most respondents are single (61.4%), with 36.8% married, and only 1.8% separated. These statistics suggest that younger, single teachers constitute the majority of LMS users. Understanding how civil status influences LMS engagement can help institutions design flexible online teaching approaches that accommodate varying personal and professional responsibilities.

Overall, these findings highlight key demographic factors that may influence LMS utilization and teachers' perceived performance in online learning.

**Table 3** Frequency and Percentage Distribution of the Respondents' Profile

|                                       |                  |                |
|---------------------------------------|------------------|----------------|
| <b>Highest Educational Attainment</b> | <b>Frequency</b> | <b>Percent</b> |
| Bachelor's Degree                     | 18               | 28             |
| With MA Units                         | 13               | 22.8           |
| MA Graduate                           | 19               | 33.3           |
| With PhD Units                        | 4                | 7              |
| PhD Graduate                          | 3                | 5.3            |

|                                                      |                  |                |
|------------------------------------------------------|------------------|----------------|
| Others:                                              | 2                | 3.5            |
| <b>Total</b>                                         | <b>57</b>        | <b>100</b>     |
| <b>Years in Service</b>                              | <b>Frequency</b> | <b>Percent</b> |
| less than 1 year                                     | 7                | 12.3           |
| 1-5 years                                            | 28               | 49.1           |
| 6-10 years                                           | 13               | 22.8           |
| 11-15 years                                          | 5                | 8.8            |
| more than 15 years                                   | 4                | 7.0            |
| <b>Total</b>                                         | <b>57</b>        | <b>100</b>     |
| <b>Mean Years in Service = 6.63 years in service</b> |                  |                |
| <b>Numbers of Subjects handled per Semester</b>      | <b>Frequency</b> | <b>Percent</b> |
| 1                                                    | 0                | 0              |
| 2                                                    | 4                | 7.0            |
| 3                                                    | 15               | 26.3           |
| 4                                                    | 19               | 33.3           |
| Over 5 subjects                                      | 19               | 33.3           |
| <b>Total</b>                                         | <b>57</b>        | <b>100</b>     |
| <b>Number of Trainings attended related on LMS</b>   | <b>Frequency</b> | <b>Percent</b> |
| 1-2                                                  | 25               | 43.9           |
| 3-4                                                  | 20               | 35.1           |
| Over 5 trainings                                     | 12               | 21.1           |
| <b>Total</b>                                         | <b>57</b>        | <b>100</b>     |

Table 3. The data show that most teachers using the Learning Management System (LMS) for online teaching hold advanced academic qualifications. A majority are MA graduates (33.3%), followed by those with a bachelor's degree (28%) and MA units (22.8%). Only a small percentage have pursued doctoral studies, with 7% holding PhD units and 5.3% as PhD graduates, while 3.5% hold other qualifications. This indicates that most LMS users are academically competent professionals with postgraduate backgrounds, suggesting a strong foundation for adapting to digital teaching environments.

In terms of years in service, nearly half of the teachers (49.1%) have 1–5 years of experience, while 22.8% have 6–10 years, and smaller groups have longer tenures (8.8% with 11–15 years and 7% with more than 15 years). The average teaching experience is 6.63 years, indicating that many LMS users are relatively early in their teaching careers and likely more familiar with technology integration in education.

Regarding subjects handled per semester, 33.3% of teachers manage four subjects, another 33.3% handle more than five, and 26.3% handle three subjects, while only 7% manage two. This suggests a substantial teaching workload that may influence their LMS engagement and performance.

As for LMS-related training, 43.9% of respondents attended 1–2 trainings, 35.1% joined 3–4 trainings, and 21.1% participated in more than five. These figures highlight a positive level of professional development but

also point to the need for continuous LMS training to ensure all teachers can fully maximize its potential for effective online instruction.

## Extent of learning management system utilization

### Accessibility

**Table 4** Extent of learning management system utilization in terms of Accessibility

Table 4 shows the summary of a survey exploring teachers' perceptions of the accessibility features of a Learning

| Accessibility                                                                                                                                      | Weighted Mean | Qualitative Rating | Rank |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|------|
| Enable an inclusive learning environment with individual accessibility settings that fit each student's unique learning style.                     | 3.42          | Strongly Agree     | 2    |
| Stay protected on any device, distribute apps on mobile devices, and limit remote access to any endpoint.                                          | 3.38          | Strongly Agree     | 3    |
| Reach all types of learners with built-in accessibility tools like closed-caption, Screen Reader, braille readers, screen magnification, and more. | 3.21          | Disagree           | 5    |
| Collaborate in real time with Docs, Sheets, Slides, Forms, Sites, and Jamboard.                                                                    | 3.33          | Strongly Agree     | 4    |
| Easily add users, manage devices, and configure security and settings so your data stays safe                                                      | 3.43          | Strongly Agree     | 1    |
| Overall Weighted Mean                                                                                                                              | 3.54          | Strongly Agree     |      |

Management System (LMS) when utilized for online learning. Participants indicated their agreement or disagreement with different statements on a scale, perhaps on the ranking from 1 (strongly disagree) to 5 (strongly agree).

The highest-rated features, with a weighted mean of 3.42 and 3.43, are the ability for the LMS to enable an inclusive learning environment with individual accessibility settings and how easily users can manage it, both of which participants "strongly agreed" with. The system's capacity to stay protected on any device and foster real-time collaboration also received "strongly agree" rating with weighted means of 3.38 and 3.33, respectively.

The least agreed feature with a weighted mean of 3.21, was the system's ability to reach all types of learners with built-in accessibility tools, which participants disagreed with. The overall mean was a favourable response of "strongly agree," with a weighted mean of 3.54. The ranking shows that the teachers found the system's ease of adding users and managing security settings to be the most valuable, while the built-in accessibility tools ranked lowest.

This means that creating inclusive experiences for learners and administrators with visual and hearing impairments is more effective with an LMS that supports accessibility standards. An LMS that supports Web Content Accessibility Guidelines (WCAG) and other accessibility guidelines can create the foundation for a comprehensive training and development program.

However, Accessible course content that meets WCAG standards is also necessary to ensure that learners have equitable access to the educational experience, regardless of personal ability or use of assistive technology (Henry, 2021).

## Reliability

Table 5 shows the extent of learning management system utilization in terms of reliability.

**Table 5** Extent of learning management system utilization in terms of Reliability

| Reliability                                                                                                                                                       | Weighted Mean | Qualitative Rating    | Rank |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------|------|
| 1. Help educators save time with Classroom and Assignments by easily creating courses, organizing classwork, distributing assessments, and sharing rich feedback. | 3.39          | Strongly Agree        | 2.33 |
| 2. Ensure consistent, transparent grading and feedback with rubrics and a comment bank                                                                            | 3.44          | Strongly Agree        | 1    |
| 3. Help educators streamline workloads by posting and scheduling coursework and building to-do lists in Classroom.                                                | 3.39          | Strongly Agree        | 2.33 |
| 4. Use in compliance with numerous requirements and industry standards.                                                                                           | 3.39          | Strongly Agree        | 2.33 |
| 5. Guide original thinking and academic integrity with quick scans to flag citation issues in originality reports                                                 | 3.35          | Strongly Agree        | 3    |
| <b>Overall Weighted Mean</b>                                                                                                                                      | <b>3.40</b>   | <b>Strongly Agree</b> |      |

Table 5 shows the survey appears to analysed teachers' perceived performance when using a Learning Management System (LMS) for online learning. Teachers rated several features of the LMS, with the understanding each feature enhances their performance and online teaching experiences. The feature that ensures consistent, transparent grading and feedback with rubrics and a comment bank received the highest rating at a weighted mean of 3.44, thus being ranked first. Three features tied for the 2.33 rank position with a weighted mean of 3.39. These include two features intended for saving educators' time and simplifying workloads: one is by creating courses, organizing classwork, distributing assessments, and sharing rich feedback, and the other by posting and scheduling coursework and building to-do lists. The third feature securing the same rank is the system's compliance with numerous requirements and industry standards. Scanning and flagging citation issues through originality reports for academic integrity came in third, with a weighted mean of 3.35. Overall, teachers "strongly agreed" that the utilization of the LMS enhances their performance in online learning, with the overall weighted mean calculated at 3.40.

This proved that Learning Management Systems (LMS) reinforce the learning process through online classroom environments. A standard LMS supports an inclusive learning environment for academic progress with interceding structures that promote online collaborative-groupings, professional training, discussions, and communication among other LMS users. An instructor's presence within an LMS creates an engaging learning environment. Students can retain their autonomy, enthusiasm, and motivation with LMS use. Stakeholders of the educational community must find scientific studies to support their contributions in LMS platforms to assist scholars in learning mathematics and other academic subjects. (Bradley, V. M. (2021).

## Summary

Table 6 shows the extent of learning management system utilization in terms of accessibility.

**Table 6** Summary

|                      | Overall Weighted Mean | Qualitative Rating    | Rank |
|----------------------|-----------------------|-----------------------|------|
| <b>Accessibility</b> | 3.54                  | Strongly Agree        | 1    |
| <b>Reliability</b>   | 3.40                  | Strongly Agree        | 2    |
| <b>Grand Mean</b>    | <b>3.31</b>           | <b>Strongly Agree</b> |      |

Reliability is also considered a very important aspect of the LMS for teachers. With a weighted mean score of 3.40, teachers also "strongly agreed" that the reliability of the LMS impacts their online learning performance, placing it in second position. Overall, teachers "strongly agreed" that using the LMS enhances their performance in online learning, scoring the grand mean at 3.31.

These statistics proved that LMS allow online professors to prepare constructivist arrangements with adaptable pedagogical intentions (AlFraihat, 2020). An LMS also allows online professors to cultivate an educational environment for learning and continuous improvement (Kitchen & Berk, 2016; Watson & Watson, 2012). Learning Objects provide valuable resources for efficient information access that is adaptable for specific student needs (Turnbull, 2019).

## Faculty Performance

Table 7 shows this data interpretation that indicates the teachers' perceived performance in the online learning modality is rated as 'Satisfactory' with a weighted mean of 3.52. This suggests overall satisfactory performance levels in utilizing the Learning Management System (LMS) for online teaching. However, this result does not highlight individual areas of strength or areas for improvement.

**Table 7** Faculty Performance

|             | Weighted Mean | Qualitative Rating |
|-------------|---------------|--------------------|
| Performance | 3.52          | Satisfactory       |

## Significant difference on the extent of learning management system utilization when the respondents are grouped according to profile variables

### Accessibility

**Table 8** Significant difference on the extent of learning management system utilization in terms of Accessibility when the respondents are grouped according to profile variables

| Profile Variables              | Source of Variation | Sum of Squares | df | Mean Square | Sig.  | Interpretation   |
|--------------------------------|---------------------|----------------|----|-------------|-------|------------------|
| Age                            | Between Groups      | 21.128         | 9  | 2.348       | 0.229 | Do not reject Ho |
|                                | Within Groups       | 80.592         | 47 | 1.715       |       | Not Significant  |
|                                | Total               | 101.719        | 56 |             |       |                  |
| Gender                         | Between Groups      | 2.069          | 9  | 0.230       | 0.581 | Do not reject Ho |
|                                | Within Groups       | 12.808         | 47 | 0.273       |       | Not Significant  |
|                                | Total               | 14.877         | 56 |             |       |                  |
| Civil Status                   | Between Groups      | 9.236          | 9  | 1.026       | 0.00  | Ho is rejected   |
|                                | Within Groups       | 10.658         | 47 | 0.227       |       | Significant      |
|                                | Total               | 19.895         | 56 |             |       |                  |
| Highest Educational Attainment | Between Groups      | 25.079         | 9  | 2.787       | 0.086 | Do not reject Ho |

|                                             |                       |               |                |              |             |                                                 |
|---------------------------------------------|-----------------------|---------------|----------------|--------------|-------------|-------------------------------------------------|
|                                             | Within Groups         | 71.167        | 4<br>7         | 1.514        |             | Not Significant                                 |
|                                             | Total                 | 96.246        | 5<br>6         |              |             |                                                 |
| <b>Years in Service</b>                     | <b>Between Groups</b> | <b>12.279</b> | <b>9</b>       | <b>1.364</b> | <b>0.27</b> | <b>Do not reject<br/>Ho<br/>Not Significant</b> |
|                                             | <b>Within Groups</b>  | <b>49.967</b> | <b>4<br/>7</b> | <b>1.063</b> |             |                                                 |
|                                             | <b>Total</b>          | <b>62.246</b> | <b>5<br/>6</b> |              |             |                                                 |
| Numbers of Subjects handled per Semester    | Between Groups        | 10.919        | 9              | 1.213        | 0.18<br>7   | Do not reject<br>Ho<br>Not Significant          |
|                                             | Within Groups         | 38.800        | 4<br>7         | 0.826        |             |                                                 |
|                                             | Total                 | 49.719        | 5<br>6         |              |             |                                                 |
| Number of Trainings attended related on LMS | Between Groups        | 6.993         | 9              | 0.777        | 0.23<br>8   | Do not reject<br>Ho<br>Not Significant          |
|                                             | Within Groups         | 27.042        | 4<br>7         | 0.575        |             |                                                 |
|                                             | Total                 | 34.035        | 5<br>6         |              |             |                                                 |

Table 8 shows that based on this data interpretation: age, gender, highest educational attainment, years in service and number of subjects handled per semester, along with the number of LMS-related trainings attended, do not have significant difference on the extent of Learning Management System (LMS) utilization. This is indicated by their p-values (0.229, 0.581, 0.086, 0.27, 0.187 and 0.238 respectively) which are all greater than 0.05. This upholds the null hypothesis for these variables.

Contrarily, Civil Status there is significantly difference on LMS utilization since the p-value (0.000) is less than 0.05, leading to the rejection of the null hypothesis for this variable. It can therefore be concluded that the Civil Status of individuals is the only significant factor affecting LMS utilization amongst the variables measured in this study.

Age, Gender, Highest Educational Attainment, Years in Service and Number of Subjects Handled per Semester, as well as the Number of LMS-related Trainings Attended, are not significant factors. These conclusions may vary dependent on the sample population, suggesting it may be relevant to explore further research.

Therefore concluded, that the level of responsibility, age, social relationships, relationships, happiness, satisfaction, level of fulfillment and satisfaction influence the behavior and productivity of single and married people.

Responsibility is a major for married while the effects of relationship are more effective and emotional on single. For example, responsibility is the main factor for married people while the relationship effect is more effective and feelings towards single people. Single people are more focused than married people because they have fewer responsibilities than married people, so you can see they are more likely to greater self-development.

In addition, Single people are more focusing than married because they have small responsibility than married, so you can find them more capable of developing. (Hamadneh, 2017).

## Reliability

**Table 9** Significant difference on the extent of learning management system utilization in terms of Reliability when the respondents are grouped according to profile variables

| Profile Variables                        | Source of Variation | Sum of Squares | d f | Mean Square | Sig.  | Interpretation   |
|------------------------------------------|---------------------|----------------|-----|-------------|-------|------------------|
| Age                                      | Between Groups      | 24.215         | 9   | 2.691       | 0.134 | Do not reject Ho |
|                                          | Within Groups       | 77.504         | 47  | 1.649       |       | Not Significant  |
|                                          | Total               | 101.719        | 56  |             |       |                  |
| Gender                                   | Between Groups      | 1.736          | 9   | 0.193       | 0.714 | Do not reject Ho |
|                                          | Within Groups       | 13.141         | 47  | 0.280       |       | Not Significant  |
|                                          | Total               | 14.877         | 56  |             |       |                  |
| Civil Status                             | Between Groups      | 9.269          | 9   | 1.030       | 0.000 | Ho is rejected   |
|                                          | Within Groups       | 10.625         | 47  | .226        |       | Significant      |
|                                          | Total               | 19.895         | 56  |             |       |                  |
| Highest Educational Attainment           | Between Groups      | 23.910         | 9   | 2.657       | 0.109 | Do not reject Ho |
|                                          | Within Groups       | 72.335         | 47  | 1.539       |       | Not Significant  |
|                                          | Total               | 96.246         | 56  |             |       |                  |
| Years in Service                         | Between Groups      | 19.187         | 9   | 2.132       | 0.029 | Ho is rejected   |
|                                          | Within Groups       | 43.059         | 47  | 0.916       |       | Significant      |
|                                          | Total               | 62.246         | 56  |             |       |                  |
| Numbers of Subjects handled per Semester | Between Groups      | 6.037          | 9   | 0.671       | 0.687 | Do not reject Ho |
|                                          | Within Groups       | 43.682         | 47  | 0.929       |       | Not Significant  |
|                                          | Total               | 49.719         | 56  |             |       |                  |

|                                             |                |        |    |       |       |                  |
|---------------------------------------------|----------------|--------|----|-------|-------|------------------|
| Number of Trainings attended related on LMS | Between Groups | 4.270  | 9  | 0.474 | 0.662 | Do not reject Ho |
|                                             | Within Groups  | 29.765 | 47 | 0.633 |       | Not Significant  |
|                                             | Total          | 34.035 | 56 |       |       |                  |

Table 9 shows the interpreting variables based on these data: age, gender, highest educational attainment, number of subjects handled per semesters and number of trainings attended related on LMS have no significantly difference on the extent of learning management system (LMS) utilization, as demonstrated by their p-values (0.134, 0.714, 0.109, 0.687, and 0.662 respectively) being greater than 0.05.

Furthermore, civil status and years in service have a significant difference on the extent of learning management system utilization in terms of reliability.

In theoretical terms, holding a higher level of educational attainment can imply either a better state of a teacher's own level of human capital development, or can act as a positive signal of adept innate ability, academic motivation, and cognitive skills development compared to those teachers without such credentials. To that end, a teacher's better state of their own human capital development may reflect more effective instructional craft, higher efficiency in classroom management, and greater creativity to bolster learning (Liu 2021a).

### Significant relationship between the utilization of LMS and faculty performance

Table 10 shows the computed p-value of -0.118 denotes a low negative correlation. The null hypotheses are accepted. Therefore, the relationship between the utilization of LMS and faculty performance is not significant.

**Table 10** Significant relationship between the utilization of LMS and faculty performance

|                                                              |                          |
|--------------------------------------------------------------|--------------------------|
| Pearson Correlation                                          | - 0.118                  |
| Sig. (2-tailed)                                              | 0.381                    |
| N                                                            | 57                       |
| Interpretation                                               | Low negative correlation |
|                                                              | Ho is accepted           |
|                                                              | Not Significant          |
| Correlation is not significant at the 0.01 level (2-tailed). |                          |

According to Palve, Suchitra S., Palve, Sachin B. Attitude and Perceptions of the Faculty Toward the Use of Lms in a Tertiary Medical College: an Interventional Study, Many Researchers Have Highlighted That Lms are Not Always Used By Faculty Members To Their Fullest Capability. While Adopting Any New Method Or System, There Are People Who Support the Change, and Few of Them Won't.

There is a Disparity in The Attitude and Perception of The Faculty Toward The Application and Use of The Learning Management System in Teaching and Learning Process. and Also, Very Few Studies Have Been Conducted at a Tertiary Level Where The Faculty Have Been Sensitized Prior to The Use of Lms.

## CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of the investigations conducted, the conclusions arrived at and the recommendations of the researchers based on salient findings obtained in the study.

## SUMMARY OF FINDINGS

### Profile of the Respondents

**Age.** The surveyed group consists of 57 individuals with ages ranging from 21 to above 41. The majority (28%) are aged 21-25 years, followed by 26% who are 31-35 years old. About 21% are aged 26-30 years, while 12% are aged 36-40 and another 12% are above 41 years old. The mean age is 31.60 years old.

**Gender.** Out of the 57 individuals surveyed, 70.1% identified as female, 24.6% identified as male, and 5.3% identified as LGBTQ+.

**Civil Status.** Out of 57 individuals surveyed about their civil status, 61.4% are single, 36.8% are married, and 1.8% is separated. There are no widows or widowers among the surveyed individuals.

**Highest Educational Attainment.** Out of the 57 people surveyed regarding their highest level of education, 18 (31.6%) have Bachelor's Degree, 13 (22.8%) have obtained MA units, 19 (33.3%) are MA Graduates, 4 (7%) have obtained PhD units and 3 (5.3%) are PhD Graduates. An additional 2 individuals (3.5%) fall under other categories.

**Years in Service.** Out of the 57 people surveyed about their years of service, 7 (12.3%) have less than 1 year, 28 (49.1%) have between 1-5 years, 13 (22.8%) have between 6-10 years, 5 (8.8%) have between 11-15 years, and 4 (7.0%) have more than 15 years. The average year in service is 6.63 years.

**Numbers of Subjects handled per Semester.** Out of the 57 people surveyed about the number of subjects they handle per semester, none handle just one subject, 4 (7.0%) handle two subjects, 15 (26.3%) handle three subjects, 19 (33.3%) handle four subjects, and 19 (33.3%) handle more than five subjects.

**Number of Trainings attended related on LMS.** Out of the 57 people surveyed about the number of trainings they attended on LMS, 25 (43.9%) attended 1-2 trainings, 20 (35.1%) attended 3-4 trainings, and 12 (21.1%) attended more than five trainings.

### Learning management system utilization

#### Extent of learning management system utilization in terms of Accessibility.

The evaluation of accessibility features shows users generally strongly agree with its aspects. Highest ranked is the ease of user management, device management, and configuration of security settings (weighted mean 3.43). The provision of an inclusive environment with individual accessibility settings ranked second (weighted mean 3.42). Real-time collaboration features and staying protected on any device scored highly too (weighted mean 3.33 and 3.38 respectively) while the claim of reaching all types of learners with built-in tools was disagreed with (weighted mean 3.21). **Overall weighted mean is 3.54, showing "Strongly Agree".**

#### Extent of learning management system utilization in terms of Reliability.

The reliability of various features was strongly agreed upon by users. Top-rated was the provision for consistent, transparent grading, and feedback with rubrics and a comment bank (weighted mean 3.44). The features for saving time with Classroom and Assignments, streamlining workloads, and ensuring usage compliance ranked equally second (weighted mean 3.39). The academic integrity with quick scans had slightly lower though still strong agreement (weighted mean 3.35). The overall rating for reliability aspects stands **"Strongly agree" at a weighted mean of 3.40.**

### Significant Difference

**Test of significant difference on the extent of learning management system utilization when the respondents are grouped according to profile variables in terms of Accessibility.**

When interpreting variables based on the data: Age, Gender, Highest Educational Attainment, Years in Service, Number of Subject Handled per Semester, and Number of Trainings Attended related on LMS, there have no significantly difference on the extent of Learning Management Systems (LMS) utilization, as demonstrated their p-values (.229, .581, .086, .27, .187, and .238 respectively) being greater than 0.05. In contrary, Civil Status has a Significant Difference on the extent of Learning Management Systems (LMS) utilization in terms of Accessibility with the p-value of (0.00) less than 0.05.

In summary, the results suggest that civil status is significant factors in LMS utilization, while age, gender, highest educational attainment, years in service, number of subjects handled per semester, and numbers of LMS-related trainings attended are not.

### **Test of significant difference on the extent of learning management system utilization when the respondents are grouped according to profile variables in terms of Reliability.**

There is no significant difference between the extent of Learning Management

Systems (LMS) utilization and Age, Gender, Highest Educational Attainment, Number of Subjects handled per Semester, and Number of Training attended related on LMS in terms of Reliability with the p-values of (.134, .714, .109, .687, and .662 respectively) being greater than 0.05. Furthermore, there is a significant difference between the extent of Learning Management Systems (LMS) utilization on Civil Status and Years in Service in terms of Reliability with the p-values of (0.00 and 0.29 respectively) being less than the 0.05.

### **Test of significant relationship on the extent of learning management system utilization and faculty performance.**

This study found no significant relationship between the accessibility of the Learning Management System (LMS) and faculty performance in the online learning modality. The statistical test resulted in a p-value of 0.77, which is significantly higher than the standard significance level (0.05). The statistical test resulted in a p-value of 0.19, which is also higher than the standard significance level (0.05). Therefore, the null hypotheses were not rejected, suggesting that LMS reliability does not significantly influence faculty performance.

### **What program to be proposed based on the study?**

Based on the summary, a well-received LMS can revolutionize education by providing a user-friendly platform for students and teachers alike. It enhances accessibility, collaboration, and engagement, ultimately leading to improved learning outcomes. By investing in such a program, we can create an innovative and inclusive educational environment that prepares students for the challenges of the future.

### **Conclusions**

Based on summary of the investigations conducted, the researchers have concluded that:

1. The respondent is a typical female in their early adulthood (21-25 years old), single and MA Graduate status with 1-5 years in service as a teacher. They are also have 4-5 and above numbers of subjects handled per semester and 1-2 years of training attended related on LMS.
2. The extent of the learning management system's accessibility and reliability is "strongly agree." Users generally agree on accessibility features, with ease of user management, device management, and security settings being the top priorities. Inclusive environments with individual accessibility settings were second. Real-time collaboration and device protection were highly rated. Reliability was also high, with consistent grading, feedback, saving time, streamlining workloads, and ensuring usage compliance being top priorities.
3. There was no significant difference in the extent of Learning Management Systems (LMS) utilization in terms of age, gender, highest educational attainment, numbers of subjects handled per semester, and number of trainings attended related on LMS in terms of reliability with the p-valued of (0.134, 0.714, 0.109, 0.687, and 0.662 respectively) being greater than 0.05. Furthermore, there was a significant difference between the extent of Learning Management Systems (LMS) utilization on civil

status and years in service in terms of reliability with the p-valued of (0.00 and 0.29 respectively) being less than the 0.05.

4. The study found no significant relationship between the utilization of the Learning Management System (LMS) and faculty performance in the online learning modality.
5. A training program will empower teachers to create engaging and interactive online learning experiences, ultimately leading to improved student outcomes. Investing in such a program will not only benefit teachers but also contribute to the overall success of online education.

## Recommendations

Based on summary of the investigations conducted and the conclusions arrived at, the researchers have offered the following recommendations based on salient findings obtained in the study.

1. LMS platforms offer a user-friendly interface for efficient course material organization, enhancing student engagement, track progress, and promoting academic success in online learning, making it crucial for educators to adapt, therefore, educators can easily monitor students progress through analytics provided by the LMS.
2. Ensure LMS meets accessibility standards like WCAG, including alternative text and keyboard navigation, and enhance security through regular software updates, encryption protocols, and user authentication controls.
3. Choose an LMS with customization, HR integration, detailed user profiles, robust reporting, mobile accessibility, training modules, data audits, scalable, and data protection compliance.
4. Choose an intuitive LMS with effective training, flexibility, and alignment with core teaching responsibilities, offering professional development opportunities, and maintaining data privacy and security.
5. A training program should be customized to the target audience's skill levels, technology familiarity, and LMS roles, ensuring relevance, effectiveness, and accessibility.

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