

USE OF LEARNING MANAGEMENT SYSTEM AND THE INSTRUCTIONAL PROFICIENCIES AMONG TEACHERS IN THE PRIVATE SCHOOLS

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Abstract

This study sought to determine the relationships between the used learning management system and the instructional proficiencies of teachers in private schools. Frequency and percentage were used to determine the demographic profile of the respondents as to the name of the school, gender, and the schools' learning management system; Mean and standard deviation were employed to quantify the perceived level of technical competence and instructional proficiencies of teachers. The Pearson moment correlation coefficient was utilized to determine the correlation between the instructional proficiencies of the teacher respondents and the use of LMS features and their level of technical competence. A researcher-made survey questionnaire was administered to extract data from the one hundred eight (108) respondents in eight (8) private schools in the Municipality of Calauan. The study shows that the assessed use of a learning management system was significantly and positively correlated with the level of instructional proficiencies and their level of technical competence. Therefore, the hypothesis stating that there is no significant relationship between the instructional proficiencies of the teacher-respondents and the use of LMS features and their level of technical competence is not sustained.

Keywords: *Instructional Proficiencies, Learning Management System, Technical Competence*

1. Introduction

A learning management system can be defined as a web-based software package used to organize, perform, and assess learning, as well as to enable student interface, provide performance response, and manage students' activities. The essential feature of a learning management system is its capacity to optimize learning excellence and develop an interactive learning system. In contrast, commercial LMS solutions can be hosted on a server or in the Cloud.

According to Kasim and Khalid (2016), the data in a server-based LMS is saved in a local network on the organization's server, which can be adjusted depending on the LMS. Meanwhile, cloud-based LMS stores data in the Cloud; therefore, internet access is required to access the system from anywhere.

Based on their discussion, Dabbagh and Kitsantas (2005) categorized learning management system features into five categories includes collaboration and communication features such as discussion forums, chats, and email that can be used to support setting of goal, help seeking, and time management strategies to learners; content creation and delivery features such as content view and access, assignment resources, presentation areas, and feedback upload features that support learning processes; content creation and delivery features such as content view and access, assignment resources, presentation areas, and feedback upload features that help learning techniques, task strategies (rehearsal, elaboration, and organization), and goal setting; administrative features such as tools that aid in quiz administration and tracking of student and course information, and a calendar that promotes SRL strategies such as self-monitoring and help seeking; assessment tools such as e-portfolios, quizzes, and features that allow for self and peer assessment; and finally, learning tools such as online linkages, bookmarking, note keeping, course indexing, and to-do list elements that improve task strategies are available (Araka et al, 2021).

According to Thornburg (2014), educational technology's history serves as a reminder that it is not the equipment that matters but instead identifying the tool that best supports your educational objectives.

The primary purpose of this study is to determine the correlations between the use of a Learning Management System (LMS) and the instructional proficiencies among Calauan private school teachers.

Private schools in the Municipality of Calauan use a variety of Learning Management Systems to support interactive learning, including Genyo E-Learning, Quipper, G Suite, and others. Different LMSs offer various features that assist students and teachers in collaborative learning using synchronous and asynchronous classes.

2. Methodology

A descriptive-correlational research design was used to analyze the possible relationships between the Instructional proficiencies of the teacher-respondents and the use of LMS features and their level of technical competence. The subjects of this investigation were the private school teachers under the Laguna Private Schools and Administrators' Association (LAPRISADA) Calauan Chapter, totalling 119. Using the purposive sampling technique, all private school teachers in Calauan were included to participate as the respondents for this study, with a total of 108. Purposive sampling is a non-probability sampling based on a population's characteristics and the study's objective.

The researcher delivered the survey questionnaire to the thesis adviser and other panel members for corrections and suggestions on improving it to ensure its consistency and correctness. To ensure the quality of statements and alignment with the subject matter under study, the researcher requested content validation by one principal, one head teacher, one master teacher, and an English teacher.

Furthermore, before administering the questionnaire, the researcher conducted a pilot test with thirty (30) teachers to determine the level of internal consistency of the indicators in such a questionnaire. Cronbach's Alpha was applied to the data collected during the pilot testing.

The researcher had secured permits to administer the questionnaires from the President of the LAPRISADA and the School Heads of each school. The researcher had distributed and retrieved the questionnaires from the respondents. The data were gathered from teachers' responses from the survey as the independent and dependent variables statistically correlated and analyzed for possible significant relationships.

The researcher guaranteed the privacy of the research participants in compliance with the Data Privacy Act of 2012. The respondents' names were omitted from the survey to protect their identities.

The researcher collected data that were used for inquiry. Statistical treatments such as mean, standard deviation, and Pearson Product Moment Correlation were also utilized to treat the data gathered.

Mean, and standard deviation were employed to quantify teachers' perceived level of technical competence and instructional proficiencies. The Pearson-moment correlation coefficient was also utilized to determine the correlation between the Instructional proficiencies of the teacher-respondents and the use of LMS features and their level of technical competence.

3. Results and Discussions

Table 1. Perception on Learning Management System (LMS) Feature

Subscales Mean SD VI

Course Management 4.48 0.75 Evident

Tracking Progress 4.50 0.71 Highly Evident Grading System 4.45 0.70 Evident

Collaborative Learning 4.28 0.79 Evident

Security and Privacy 4.39 0.79 Evident

Overall 4.42 0.75 Evident

Legend: 4.50-5.00 Highly Evident, 3.50-4.49 Evident, 2.50-3.49 Moderately Evident, 1.50-2.49 Slightly Evident, 1.00-1.49 Not Evident

As demonstrated in Table 1, it is evident in the LMS as noticed by teachers on the indicators that described the perception of the learning management system (LMS) features when it comes to course management, with an overall mean of 4.48. This shows that the teachers managed their course or subject to accomplish the desired learning outcomes for their pupils. The arrangement of the course outline using a learning management system is known as course management.

According to table presented, the Perception of Learning Management System Features in terms of Tracking development has an overall mean of 4.50, indicating that teachers widely utilize an LMS to track the development of their students. This shows that the teachers could track the learners' learning progress by utilizing an LMS, specifically by assigning different activities and recording the tasks performed by the learners. Tracking progress requires students, parents, and teachers to use a learning management system to track the development of the learner.

The table also shows the Learning Management System features regarding the Grading System. With an average mean of 4.45, LMS is utilized by teachers. This shows that the teachers could evaluate the students' output using a scoring system. A grading system is a feature of a learning management system in which teachers track the grade of their students in a given assessment.

Furthermore, as indicated in the table above, an LMS in terms of Collaborative Learning is evident in all aspects, with an overall mean of 4.28. It also implies that collaborative learning is necessary for every discussion so that learners can interact and learn from one another. Collaborative learning is a learning process in which learners and teachers can communicate with each other in a two-way process.

In addition, the table summarizes the perceptions of the learning management system in terms of security and privacy

features. It is apparent in four indicative statements that an LMS is evident, with an overall mean of 4.39. It explicitly states that every LMS must have security and privacy to comply with the Data Privacy Act 2012. Security and privacy pertain to each learner's account and password.

Table 2. Perceived Level on Technical Competence

Subscales Mean SD VI

ICT Skills 4.03 0.83 Good

Crafting Online Assessment 4.38 0.71 Good

Lesson Packaging 4.45 0.73 Good

Overall 4.29 0.76 Good

Legend: 4.50-5.00 Excellent, 3.50-4.49 Good, 2.50-3.49 Fair, 1.50-2.49 Poor, 1.00-1.49 Very Poor

The respondents' perceived level of technical competence in terms of ICT skills is displayed in Table 2. Teacher respondents are good with all the statements set, with an overall mean of 4.03. This means that teachers can utilize Learning Management System if they are experiencing troubles and difficulties in handling students in LMS. ICT skills denote efficiently understanding and applying a teacher's ability to use LMS.

It can be seen, Table 2 shows the perceived level of technical competence in crafting online assessments. It is depicted that the teacher respondents' overall mean of 4.38, which indicates that they are good with all the statements regarding the alignment of assessment, use of the medium of instruction, providing the learners with interactive and engaging activities, using and uploading of variety form of assessment using an LMS.

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Table 3. Summary of the Perceived Level of Instructional Proficiencies

Subscales Mean SD VI

Lesson Planning 4.43 0.69 Above Standard

Lesson Development 4.41 0.72 Above Standard

Productivity 4.40 0.71 Above Standard

Teaching Strategies 4.36 0.74 Above Standard

Learning Outcomes 4.49 0.69 Above Standard

Overall 4.41 0.71 Above Standard

Legend: 4.50-5.00 Far Above Standard, 3.50-4.49 Above Standard, 2.50-3.49 Standard, 1.50-2.49 Below Standard, 1.00-1.49 Far Below Standard

As pictured in Table 3, the perceived level of instructional proficiencies in lesson planning and teacher-respondents is above standard, with all statements shown in the table with an overall mean of 4.43. This shows that teachers are proficient in creating a well-organized lesson plan. Lesson planning is a process of outlining lessons to determine the flow of discussions with the teacher.

Table 3 presents the summary of the perceived level of instructional proficiencies in terms of lesson development. It can be seen from the table that teacher-respondents are above standard with all the given variables with an overall mean of 4.41. This suggests teachers could manifest the knowledge and skills in providing a well-developed lesson. Lesson development refers to enhancing the delivery of learning to students.

As pictured in Table 3, the perceived level of instructional proficiencies in productivity and teacher-respondents are above standard, with all the statements having an overall mean of 4.40. This shows that teachers are proficient in performing well to make them productive. This implies that teachers are performing their duties and responsibilities towards both learners and the school.

As shown in Table 3, the perceived level of instructional proficiencies in teaching strategies and teacher-respondents are above standard in using the learning management system, with all the statements having an overall mean of 4.36. This signifies that teachers are proficient in providing different strategic teaching during the teaching-learning process. Teaching strategies are the different techniques used by teachers in the delivery of lessons.

As revealed in Table 3, the perceived level of instructional proficiencies in learning outcomes and teacher-respondents are far above standard with statements 1 and 3. On the other hand, they are above standard, with statements 2,4, and 5 having an overall mean of 4.49. This denotes that teachers are proficient in providing students with learning outcomes. Learning outcomes are the results of what the learners learned from the discussions.

Table 4 . Significant Relationship between the Assessed Use of Learning Management System and the Level of Instructional

Subscales	Instructional Proficiencies					Teaching Strategies				
	Lesson					Learning Outcome				
	LMS Features	Lesson Planning	Development	Productivity						
Course Management	.787**	.787**	.789**	.730**	.768**	Tracking Progress	.867**	.843**	.838**	.788**
Grading System	.765**	.843**	.764**	.698**	.751**	Collaborative Learning	.713**	.732**	.670**	.665**
Security and Privacy	.610**	.667**	.592**	.600**	.641**	Technical Competence				
ICT Skills	.460**	.550**	.516**	.449**	.469**	Crafting Online Assessment	.813**	.821**	.826**	.782**
Lesson Packaging	.808**	.777**	.719**	.797**	.791**					

Correlation is significant at the 0.01 level (2-tailed).

The correlation test was undertaken to determine if there is a significant positive relationship between the assessed use of the learning management system and the level of instructional proficiencies presented in Table 4.

Results indicated that course management was positively and significantly correlated with lesson planning ($r=.787^{**}$), lesson development ($.787^{**}$), productivity ($.789^{**}$), teaching strategies ($.730^{**}$), and learning outcomes ($.768^{**}$). This means that if the course management is organized, the instructional proficiencies of teachers will develop as they use the learning management system.

Similarly, tracking progress was positively and significantly correlated with lesson planning ($r=.867^{**}$), lesson development ($.843^{**}$), productivity ($.838^{**}$), teaching strategies ($.788^{**}$), and learning outcomes ($.832^{**}$). This indicates that tracking progress is very important to determine the progress of the learners, which may depend on the instructional proficiencies of teachers.

Furthermore, the grading system was positively and significantly correlated with lesson planning ($r=.765^{**}$), lesson development ($.843^{**}$), productivity ($.764^{**}$), teaching strategies ($.698^{**}$), and learning outcomes ($.751^{**}$). This may imply that the grading system was necessary for evaluating the learning outcomes of the learners.

In addition, collaborative learning was positively and significantly correlated with lesson planning ($r=.713^{**}$), lesson development ($.732^{**}$), productivity ($.670^{**}$), teaching strategies ($.665^{**}$), and learning outcomes ($.658^{**}$). This means that if the teachers provide collaborative work, the learners will learn more than pure discussion.

Lastly, security and privacy were positively and significantly correlated with lesson planning ($r=.610^{**}$), lesson development ($.667^{**}$), productivity ($.592^{**}$), teaching strategies ($.600^{**}$), and learning outcomes ($.641^{**}$). This also means that by using an LMS, teachers should maintain the security and privacy of the given lessons and activities.

The data also presented that in terms of technical competence, ICT skills were positively and significantly correlated with lesson planning ($r=.460^{**}$), lesson development ($.550^{**}$), productivity ($.516^{**}$), teaching strategies ($.449^{**}$), and learning outcomes ($.469^{**}$). It indicates that if the teachers are competent in ICT skills, they will handle difficulties while using an LMS to provide learners with instructional materials.

Similarly, crafting online assessment was positively and significantly correlated with lesson planning ($r=.813^{**}$), lesson development ($.821^{**}$), productivity ($.826^{**}$), teaching strategies ($.782^{**}$), and learning outcomes ($.816^{**}$). Teachers should also be competent in crafting online assessments using an LMS for the learners to provide a good learning outcome.

Moreover, lesson packaging was also positively and significantly correlated with lesson planning ($r=.808^{**}$), lesson development ($.777^{**}$), productivity ($.719^{**}$), teaching strategies ($.797^{**}$), and learning outcomes ($.791^{**}$). This implies that good lesson packaging will help the teachers to become productive in planning and developing their lessons and use different teaching strategies to provide suitable learning outcomes.

Overall, as shown in Table 4, a significant positive relationship exists between the assessed use of the learning management system and the level of instructional proficiencies. This implies that when an LMS in terms of LMS Features and

technical competencies were maximized, this would contribute to the instructional proficiencies of teachers such as lesson planning, lesson development, productivity, teaching strategies, and learning outcomes.

According to Ohliati & Abbas (2019), a Web-based technology application that supports teaching and learning activities, organizes e-learning content and provides unlimited access to e-learning material is LMS (Learning Management System). As supported by Stantchev et al. (2013), LMS is a web-based technology that controls an online learning system, deliver learning materials, and enables interaction between lecturers and learners.

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References

- Araka, E., Maina E., & Gitonga, R., Oboko, R., and Kihoro, J.; University Students' Perception on the Usefulness of Learning Management System Features in Promoting Self-Regulated Learning in Online Learning; *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 2021, Vol. 17, Issue 1, pp. 45-64.
- Dabbagh, N., & Kitsantas, A. (2005). Using web-based pedagogical tools as scaffolds for self-regulated learning. *Instructional Science*, 33(5-6), 513-540.
- Kasim, N. N. M., & Khalid, F. (2016). Choosing the right learning management system (LMS) for the higher education institution context: A systematic review. *International Journal of Emerging Technologies in Learning*, 11(6).
- Ohliati, J., & Abbas, B. S. (2019). Measuring students satisfaction in using learning management system. *International Journal of Emerging Technologies in Learning (Online)*, 14(4), 180.
- Stantchev, V., Colomo-Palacios, R., Soto-Acosta, P., & Misra, S. (2014). Learning management systems and cloud file hosting services: A study on students' acceptance. *Computers in Human Behavior*, 31, 612-619.
- Turnbull, D., Chugh, R., & Luck, J. (2020). Learning Management Systems, An Overview. *Encyclopedia of education and information technologies*, 1052-1058.