



Perceptions on the Utilization of Learning Management System and its Effects on the Communication Skills of Private Senior High School Students in Manila

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Online learning is a mode of delivery in distance education through the internet [1]. Teachers conduct their classes synchronously (real-time online sessions) or asynchronously (courses at different times). Online learning is currently the primary mode of delivery in the Philippines due to the threat of the COVID-19 pandemic. Due to this, learning management systems (LMS) are used and are essential for the delivery of online classes to meet students' needs. Integrating technology and the internet in teaching and learning is necessary. This study aimed to determine the perceptions on the utilization of learning management system and its effects on the communication skills of private senior high school students in Manila, the capital city of the Philippines. The connection between LMS and communication skills is not usually explored based on the literature

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surveyed, hence, the conception of this research study. The following research questions were answered through a survey form which contained both closed and open-ended questions: 1) What are the perceptions on the utilized learning management system of senior high school students? and 2) How effective is the learning management system used in enhancing communication skills? Seventy-four senior high school students from private schools in Manila voluntarily participated in the study. Data were examined using descriptive statistics and thematic analysis. The study found that senior high school students have a positive perception of learning management systems in terms of interaction, instruction, and learning quality. These function as a tool to promote communication among students and between students and teachers that are made possible by its features. Students also think that learning management systems are a way to make collaborative activities possible that further allow them to hone their communication skills. Overall, the respondents deem that online learning quality and communication skills are improved by using LMS. Based on the findings, the study recommends that more trainings be conducted for students and teachers alike to maximize the use of LMS as part of the new normal way of teaching and learning and to further explore this research topic.

Keywords: Learning management system; communication; education.

1. INTRODUCTION

1.1 Background of the Study

Online learning has been the trend in 21st-century education, especially at the onset of the COVID-19 pandemic. Schools were forced to transition from traditional teaching and learning (i.e., face-to-face) to remote and online distance learning. Left with limited to no choice, teachers and students had to embrace the sudden change in education.

Where to deliver the lessons is one of the essential needs that must be met, brought about by the paradigm shift in education. This is where learning management systems come in. Learning Management System or LMS contains features that engage students in online teaching and learning. As Tseng [2] mentioned, LMS can integrate interactive teaching and learning materials that enable the migration of delivery and communication in an internet-mediated platform. Moreover, LMS allows students to be independent learners anytime, anywhere (ideally) without barriers (Ganesser, 2020). Hence, students and teachers are expected to utilize their LMS to continue learning and achieve their learning goals. However, sudden change as this could also bring varying effects. With interactions and communications shifted from in-person to online platforms, checking the impact on communication skills from the learners' perspective is vital.

Communication skills are essential in day-to-day engagements. By communicating, people can relay and receive messages, thoughts, feelings, imagination, and ideas (Khambayat, 2017 as

cited in Hikama et al. [3]) and then provide feedback to them. This is especially important in the school setting. Students' academic success is highly attainable if teachers are skilled and excellent communicators [4]. Integrating technology into teaching practices was also proven to help learners achieve more communication skills benefits (Nguyen, 2020). In other words, teachers and technology can be partners in honing better student communication skills. With the help of LMS, where teachers can plan, implement and assess learning processes, skills and competencies acquisition is still possible. The current study examined students' perceptions of using LMS and its effects on communication skills.

Determining students' perception of using learning management systems is one way of checking if their needs are being met, even in the online setup. Studying its effects on one of the 21st Century skills is especially relevant. Analyzing the connection between the utilization of learning management systems and students' communications skills in online learning is important to identify what needs to be improved moving forward. Additionally, this focus of the current study responds to a lack of research involving high school students concerning online learning, as mentioned in an integrative review done by Dimasacat and Cacho [5].

2. REVIEW OF RELATED LITERATURE

2.1 Online Learning

Online learning (or e-learning) is a mode of delivery in distance education through the internet [1]. Teachers conduct their classes

synchronously (real-time online sessions) or asynchronously (courses at different times). It is safe to say that this is not a new term, especially in 21st-century education. Digital literacy is one of the 21st-century essential skills, and information and communication technology helps attain this. Thus, integrating technology and utilizing the internet in teaching and learning is necessary. The results of the study by Johnson (2014, as cited by Tanis, [6]), showed how online learning activities impact students' excellence. When class activities match their learning preferences, they tend to engage more and demonstrate their abilities. However, in most countries, schools are only forced to implement online learning due to COVID-19. In some developing countries, especially in Africa, numerous schools had to shut down because they could not meet the demands of the abrupt shift to online learning. As cited by Cavus, Mohammed, and Yakubu [7], educational institutions in West African countries find it difficult to have sustainable LMS-enabled distance learning. As a result, thousands of learners had to stop attending school.

As mentioned by OECD [8], the pandemic made digital technologies the lifeline for education. Online learning led teachers and students to experience a different approach to education. It allows them to have their own learning pace without being constricted by other barriers such as geographical location. Utilizing the internet, with available educational technology tools, is also expected to help assist classes and virtual consultations. Other vital elements and components were also introduced. Learning Management Systems are one of those.

2.2 Learning Management System

Learning management systems (LMS) are essential to online distance learning. Its history dates back to the 1960s in developing the first computer-assisted instruction system called PLATO (Bitzer et al., 1961, as cited in Rhode et al. [9]). Over the years, its development due to the emergence of the internet cannot be unseen. The promised optimal use eventually entered the world of education and is now considered a mainstay of online education infrastructure [10].

Investigating the utilization of learning management systems (LMS) can be administered in various ways. Ajijola, Ogunlade, and Aladesusi [10] studied the students' attitudes toward LMS, while Mahali, Changilwa, and

Anyona [11] examined the influence of the level of training on the utilization of LMS. Both studies found positive results regarding their focus of investigation (i.e., attitudes and level of training), supporting that these results affected how participants view LMS' relevance to the educational context. On the other hand, a more specific approach to analyzing LMS utilization was the focus of Ismail, Hamid, and Chiroma's [12] study, which paid attention to learning analytics. The researchers believed that tracing and exploring students' online activity in a learning management system would guide school teachers and administrators to gain insights into students' engagement. Results showed that the strong engagement and interaction between the students, lecturers, and the content in LMS helped boost LMS usage. Thus, creating a learning analytics model is crucial in molding the online learning environment communication and participation of the users. A model such as this also benefits an effective teaching and learning process.

While previous related studies frequently mentioned how helpful LMS is to education, issues, and challenges tied to its functionalities can be another essential focus of discussion. Al-Sharhan, Al-Hunaiyyan, Alhajiri, and Al-Huwail [13] identified problems with utilizing LMS, such as the commonly used functions being only administrative and management-related. This finding proved that teachers did not maximize their LMS' full functionalities. Hence, more investigation is necessary to highlight other factors and elements that affect LMS optimizations. The study by Araka, Maina, Gitonga, Oboko, and Kihoro [14] provided similar findings from students' perspectives. Their results revealed that university students underutilized LMS because of several challenges that obstructed them from being actively involved. Some identified setbacks were a lack of individualized feedback on students' learning habits, lack of instructor guidance, lack of interaction with course instructors, lack of peer interaction, and lack of automation tools. Studies like these provided insights for teachers and school administrators to work on the needed improvements to address the issues and improve the online learning experience through LMS.

2.3 Students' Communication Skills

Students' ability to communicate is one of the essential skills because it can lead to connection and collaboration with others. Interactions and

engagements are also part of and help with a successful communication process. However, the shift from traditional to online education also brings challenges, especially in the communication levels of students [15]. Efficient use of communication platforms in online distance learning is one of the major challenges (Allen & Seaman, 2013; Swerling & Thorson, 2014, as cited in Kayode [16]). Zarycka et al. (2021) explained it in detail:

"[...] online communication and collaboration require typing the responses and explanations and can take considerably more time and be less effective in some cases.

Written messages must be carefully constructed in order to avoid sending an undesired message or unintentionally offending the recipient, which often takes more time than an oral conversation." (p. 5)

From these explanations, it is understood that students face technical and social challenges in online learning. On the other hand, several studies mentioned that online learning helps hone communication skills. In a study by Ganeser [17], she mentioned that online learning allows students to have diverse communication abilities by collaborating and communicating with their peers in the virtual world (Al-Hassan & Shukri, 2017; Joksimović et al., 2015), allows communication to be a significant aspect of learning (Aydin, 2013), hence creating a positive learning environment (Danesh et al., 2015). On top of these, students find it more comfortable to communicate and have positive feelings regarding communication skills in online learning [18,19]. Nevertheless, varying impacts on students' communication skills should be addressed and reviewed, especially its connection to other elements and aspects of online learning. By doing so, schools can foster meaningful online learning experiences for students.

3. RESEARCH QUESTIONS AND SIGNIFICANCE OF THE STUDY

This study aimed to determine the perceptions on the utilization of the learning management system and its effects on the communication skills of private senior high school students in Manila, the capital city of the Philippines. To attain this, the following research questions were answered:

- 1) What are the perceptions on the utilized learning management system of senior high school students?
- 2) How effective is the learning management system in enhancing communication skills?

The connection between LMS and communication skills is not usually explored based on the literature reviewed, hence, the conception of this research study. Analyzing the utilization of LMS is necessary to check further and assess the current educational approach and practices, especially when online learning is the widely used format in delivering lessons considering the emerging trend i. Determining students' perceptions regarding this is a great start, for it is the students whose opinion matters most in the education system [18]. Additionally, knowing the effects or lack thereof of LMS utilization on students' communication skills would help teachers, school administrators, and instructional designers evaluate their work. The current researchers also hope to contribute to the body of knowledge focusing on language education and educational technologies research in basic education. There is a dearth of research focusing on students' perceptions of online learning, especially at the secondary level, that this study aims to fulfill.

4. METHODS

4.1 Research Design

Mixed-method is the design of this research. It is a method that combines both quantitative and qualitative approaches. As stated by Efron and David [19], the purpose of mixed methods is to draw on the strength of both quantitative and qualitative techniques to answer the questions posed in a research study. As the main objective of the study is to ascertain the perceptions of Grade 11 and 12 senior high school students on the learning management systems employed in their schools along with the improvement of their communication skills, a mix of quantitative and qualitative techniques was utilized. The quantitative aspect of the study was on the survey instrument used where students were asked to respond by picking an answer based on the Likert scale. The qualitative aspect of the study, on the other hand, was still on the survey instrument particularly on its latter part where students were asked to supply brief answers to the questions posed. Both quantitative and qualitative responses were analyzed to satisfy the objectives of the current study.

4.2 Participants

The participants of the study are Grade 11 and 12 senior high school students of private schools in the city of Manila. Volunteer sampling was used; after sending the letter of invites to the schools, the researchers shared with the students the survey form link to elicit responses. The student participants were reminded that the data collection was solely for the purpose of research. The survey form was made available to the respondents for almost a month. After the time given, it was concluded that a total of 74 senior high school students took part in the study.

4.3 Instruments

Survey instrument was used to collect responses from the student participants. Google Forms was used for the survey to be conveniently shared with the respondents. The first part of the instrument asked for students' personal details such as sex and grade level and was followed by the question on which LMS was used in their schools, with the following options: Blackboard, Brightspace, Canvas, Google Classroom, Schoology, and others. The survey instrument was adapted from the study of Koh and Kan [20] about students' perceptions of learning management system's quality, satisfaction, and usage. Survey items about students' perceptions on learning management systems and communication skills were divided into the following segments: interaction quality, instructional quality, learning quality. The first two segments of the original instrument, namely system quality and information quality, were omitted as the researchers deemed that these were no longer within the scope of the study.

To further probe the respondents, open-ended questions were asked and presented at the latter part of the same survey instrument which required the respondents to provide short answers. The following questions were asked:

1. Did the learning management system you utilized help you in expressing your opinions? How?
2. Did the learning management system you utilized allow you to communicate with your lecturer? How?
3. Did the learning management system you utilized allow you to communicate with your peers? How?
4. Did the learning management system make you more confident? How?

5. Did the learning management system you utilized improve your communication skills? How?

4.4 Procedures and Data Analysis

After securing the consent of the school administrators as well as the student participants, the researchers sent the Google Forms link that allowed the students to share their responses. Almost a month was given for the students to respond as the researchers did not want to require the respondents to answer the survey items in a rush since these were a combination of Likert scale and open-ended questions. The researchers wanted the students to provide answers that would satisfy the research questions without forcing them to beat an immediate deadline. Apart from this, the researchers targeted to have as many respondents as possible, hence, the duration of the data collection. Once the time allotted ended, data analysis proceeded.

Data analysis was comprised of two components. For the quantitative aspect, mean was computed to show the average per item and per segment of the first part of the survey instrument. Additionally, standard deviation of each item of the first part of the survey was computed to show the dispersion of data. For the qualitative component, thematic analysis by Braun and Clarke publicized in 2012 was employed to interpret the data collected from the participants. Braun and Clarke's method is composed of six stages: 1) becoming familiar with the data 2) generating codes 3) generating themes 4) reviewing themes 5) defining and naming themes and 6) locating exemplars. To strengthen the analysis of data, Voyant tools (<https://voyant-tools.org/>) was employed. These approaches allowed the researchers to answer the questions posed by the study.

5. RESULTS

Table 1 shows the respondents' take on interaction quality of learning management systems. Respondents strongly agree on the statement "I think communicating with my lecturer through the LMS is important" with a mean of 4.49 (standard deviation: 0.73). On the other hand, students agree on the statement "I think communicating with my peers through the LMS is important" with a mean of 3.81 (standard deviation: 0.99). The table shows the overall average of 4.17 that corresponds to Agree, which

indicates that respondents have a positive take on interaction quality of learning management systems. This implies that the learning management systems used provide a good environment for students to interact with their peers and teachers, as well as provide an avenue for interactions to ensue.

Table 2 summarizes the respondents' view on the instructional quality of the utilized learning management systems. Respondents strongly agree that "The LMS is valuable for submitting assignments" with a mean of 4.80 (standard deviation: 0.60) and that "The LMS is valuable for

posting and replying to discussions" with a mean of 4.41 (standard deviation: 0.95). Additionally, respondents agree that "The LMS is valuable for communicating with peer students" with a mean of 3.68 (standard deviation: 1.05). Overall, the table shows an average of 4.20 which implies that respondents have a positive take on the instructional quality of the learning management systems used. These findings imply that the respondents find the learning management systems valuable in terms of providing instructions for the teaching and learning process to work.

Table 1. Interaction quality

Items	Mean	Equivalent	Standard Deviation
The LMS provides a good environment to discuss and collaborate with my peers.	4.00	Agree	0.92
I think communicating with my lecturer through the LMS is important.	4.49	Strongly Agree	0.73
I think communicating with my peers through the LMS is important.	3.81	Agree	0.99
The LMS supports interactivity between learners by discussions, forums, etc.	4.39	Strongly Agree	0.81
Average	4.17	Agree	

Table 2. Instructional quality

Items	Mean	Equivalent	Standard Deviation
The LMS is valuable for learning from my peers.	4.15	Agree	1.00
The LMS is valuable for posting and replying to discussions.	4.41	Strongly Agree	0.95
The LMS is valuable for submitting assignments.	4.80	Strongly Agree	0.60
The LMS is valuable for managing project collaborations.	3.97	Agree	1.01
The LMS is valuable for communicating with peer students.	3.68	Agree	1.05
Average	4.20	Strongly Agree	

Table 3. Learning quality

Items	Mean	Equivalent	Standard Deviation
Learning activities foster instructor-student or student-student interaction.	4.14	Agree	0.91
The LMS has the potential to make the learning process more engaging and motivating.	3.85	Agree	0.97
The online environment is conducive and enjoyable for learning overall.	3.77	Agree	1.15
I find that the LMS is a good educational portal that improves my learning.	3.96	Agree	1.03
The LMS helped me to become more familiar with the course content.	4.34	Strongly Agree	0.83
Technologies are used creatively in ways that go beyond traditional ways of learning.	4.55	Strongly Agree	0.74
Average	4.10	Agree	

Table 3 presents the respondents' feedback on the learning quality of the learning management systems employed in their respective schools. Respondents strongly agree that "Technologies are used creatively in ways that go beyond traditional ways of learning" with a mean of 4.55 (standard deviation: 0.74) and that "the LMS helped to become more familiar with the course content" with a mean of 4.34 (standard deviation: 0.83). Moreover, the respondents agree that "the LMS has the potential to make the learning process more engaging and motivating" with a mean of 3.85 (standard deviation: 0.97) and that "the online environment is conducive and enjoyable for learning overall" with a mean of 3.77 (standard deviation: 1.15). The overall average is 4.10 which corresponds to agree, which implies that respondents take learning management systems positively in terms of its

learning quality. This shows that respondents have high regard for learning management systems in making the process of teaching and learning work, especially during the pandemic.

Fig. 1 presents the dominant words taken from the responses to the question about the connection between learning management system and students' expression of opinions. Respondents agree that there is a connection between learning management system and their expression of opinions as 43 "yes" responses were recorded. It is also worth noting that the term "discussion" appeared 19 times, which supports the claim that the use of learning management systems allows for discussion among students, thus, letting them express their opinions on matters linked to their subjects.



Fig. 1. Learning management system and students' expression of opinions
 Most frequent words in the corpus: yes (43); opinions (30); express (20); discussion (19); lms (15)



Fig. 2. Learning management system and students' communication with lecturers
 Most frequent words in the corpus: yes (49); communicate (24); lecturer (23); google (13); teachers (12)

Fig. 2 presents the dominant responses of the student participants to the question about the connection between the learning management system and students' communication with lecturers. Respondents have a positive feedback on the use of learning management system in terms of promoting communication with the lecturers as shown by the "yes" response which sums up to 49. Based on the responses, Google has been mentioned 13 times by respondents which implies that Google Classroom as a learning management system is instrumental in making the communication between students and lecturers work.

Fig. 3 shows the most frequent answers of the respondents to the question about the connection between learning management system and students' communication with peers. A total of 36 "yes" responses were generated which manifests that the respondents use learning management system as a means to communicate with their peers. However, both the terms "Messenger" and "Google" received a total response of 15 which implies that while Google Classroom is used as a learning management system by most of the respondents, some respondents find it more practical to communicate with their peers through Messenger, which is a social networking site.

Fig. 4 presents the responses of the student participants to the question about learning management system and its connection to students' building of confidence. A total of 43 "yes" responses were recorded which manifests

that students find learning management system a capacitating tool for enhancing their confidence, which is linked to the response "confident" with a total of 23. Moreover, 10 respondents answered "able" which is in line with the claim that students find learning management systems instrumental in making them become more confident.

Fig. 5 summarizes the student participants' feedback with regard to the connection between learning management system and improvement of communication skills. A total of 38 "yes" responses were recorded which is a manifestation that students find learning management systems employed in their respective schools as a platform that lets them improve their communication skills; this also connects to the "improved" response which sums up to 14. Moreover, a total of 12 "helped" response were recorded which shows that the student participants find learning management systems an aiding tool in terms of communication skills enhancement.

Fig. 6 shows the themes and codes about the perceptions of students on learning management system utilization. From the responses of the student participants, three themes were formulated: helpful, neutral, and challenging. These themes refer to the overall perceptions of students on the learning management systems used in the respective educational institutions. Respondents find the LMS as "helpful" as these were used as an instrument for discussion of matters related to the subjects they took as well

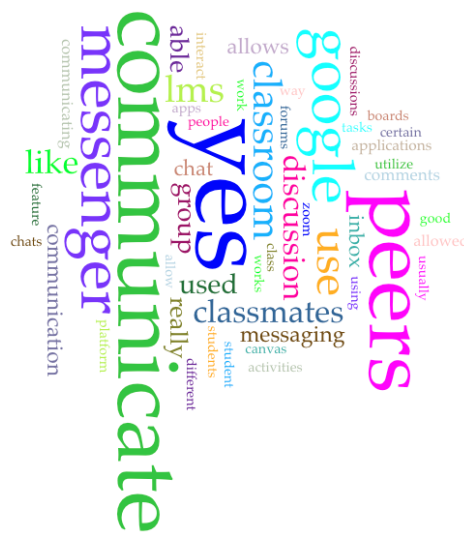


Fig. 3. Learning management system and students' communication with peers
Most frequent words in the corpus: yes (36); peers (27); communicate (26); messenger (15); google (15)

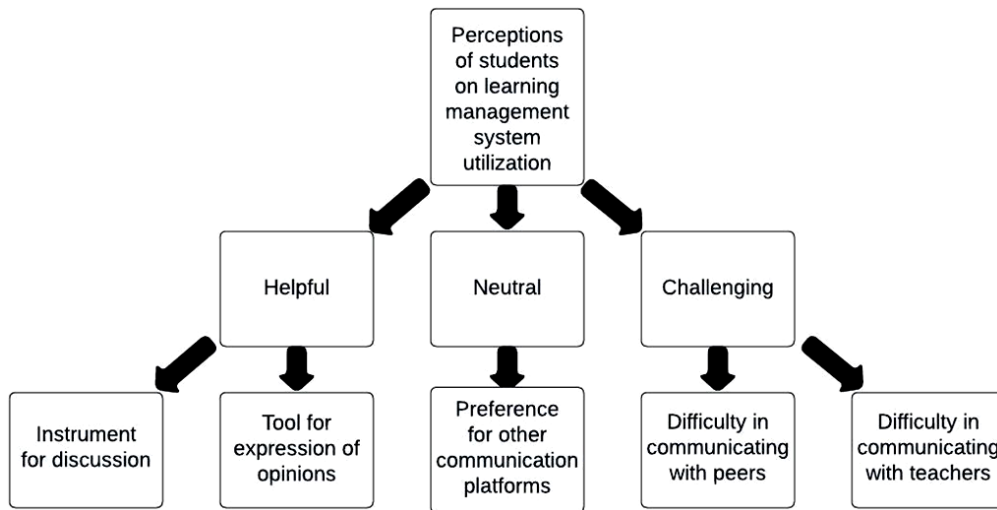


Fig. 6. Perceptions of students on learning management system utilization

as a tool for expression of opinions on topics discussed in their classes. Student participants view the LMS in a “neutral” light since some of them prefer using other communication platforms but still were tasked to use the LMS in compliance with the school policies. Lastly, respondents find the LMS “challenging” as they had difficulties in communicating with peers and teachers as some of them encountered technical issues, were not used to the user interface, and were not comfortable in using online platforms.

Fig. 7 shows the themes and codes about the connection between communication skills improvement and learning management system usage. From the student participants’ responses, two themes were created: building of confidence

and enhancement of written communication skills. These two themes refer to the effects of the learning management systems used on the student participants. First, “building of confidence” was made possible by the LMS used as the discussion boards let them exchange opinions, reward system was employed that boosted their confidence, and modules and lectures were uploaded that made them know more about the subject matters discussed. Second, “enhancement of written communication skills” became possible as the LMS utilized paved the way for collaboration with peers, consultation with teachers, and exposure to creative ways of written presentations, which all contributed to the students’ realization that their communication skills improved.

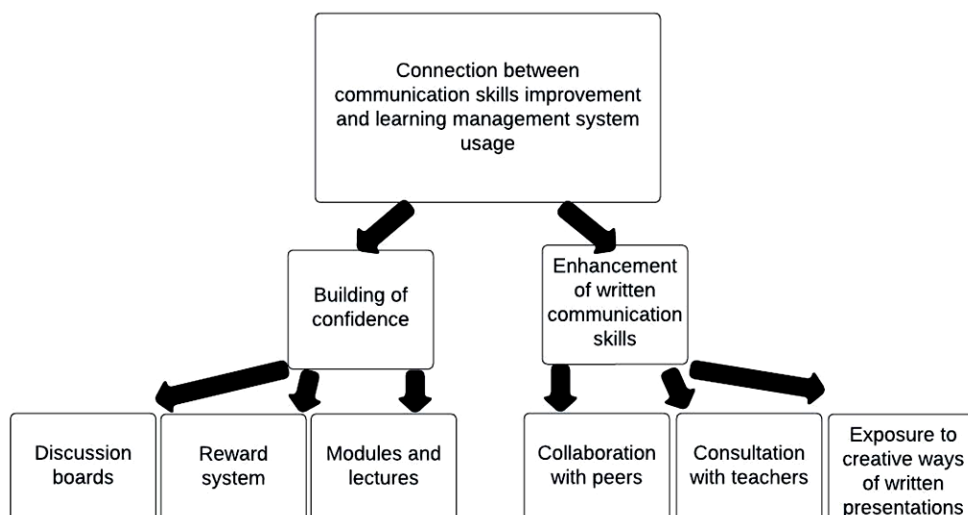


Fig. 7. Connection between communication skills improvement and learning management system usage

6. DISCUSSION

6.1 What are the Perceptions on the Utilized Learning Management System of Senior High School Students?

The participants of the study showed positive view on the learning management systems utilized in their schools. Based on the survey responses, respondents strongly agree that communicating with the lecturer through the LMS is important and that the LMS supports interactivity between learners by discussions, forums, etc. Overall, in terms of interaction quality, an average of 4.17 that corresponds to "Agree" was recorded. This implies that student participants have a positive take on the interaction quality of the learning management systems used. In terms of the instructional quality of the LMS, the respondents strongly agree that the LMS is valuable for posting and replying to discussions and that the LMS is valuable for submitting assignments. Based on the overall average of the instructional quality segment of the survey, the student participants positively view the learning management systems used in promoting interaction. With an average of 4.20 which corresponds to "Strongly Agree", respondents think that learning management systems are a tool in making interactions possible even in the online setup. Still on the survey employed, the respondents strongly agree that the LMS help them become familiar with course content and that technologies are used creatively in ways that go beyond traditional ways of learning. With all these mentioned, it is manifested that students have a positive view on the learning quality of the learning management systems used. With an average of 4.10, the respondents "Agree" that the learning management systems used are instrumental in learning.

The presented perceptions of respondents on learning management systems are supported by the responses in the latter part of the survey form which contained open-ended questions. In relation to the interaction quality of the LMS, one respondent mentioned "Yes, we utilize the platform to freely communicate with them regarding our academic concerns and to be more enlightened on the various topics." Another respondent highlighted that "Yes, it did. The system has a function that allows student and teachers to exchange emails." These responses

put emphasis on how the student participants perceive learning management systems' interaction quality. In addition, student participants also find learning management systems used in their schools an aiding tool when it comes to their interaction with their peers. One respondent said, "Yes, we are encouraged by our professors/instructors to give comments to the ideas of our classmates to show our agreement on their opinions and give more details on their comments as well." Another respondent answered, "Yes, it has a function that allows students to email each other." It could be deduced that through the initiative of the teachers, students were able to realize that the LMS is a platform for interaction. Additionally, the embedded features of the LMS allowed for further interaction to happen, which is but a part of the teaching-learning process. In terms of the instructional quality of the learning management systems, student participants expressed that the LMS provided instructions for the learning process to be possible. One student participant expressed that the LMS served its purpose of providing instructions "since I am given all the needed modules and instructions in the LMS." Another student emphasized the importance of discussion boards in extending the instructions provided, with the statement "Discussion boards that require responses encourage students to share their opinions." The learning quality of learning management systems was also viewed positively by the respondents. "Through the LMS, I am able to have an overview and background of the topic at hand and future topics" and "There are learning materials in the LMS that are very informative which make me confident that I can learn the material at hand easily" are some of the responses that reinforce the positive perception of student participants on the learning quality of learning management systems.

The positive perceptions of students on learning management systems corroborate the findings of Eldeeb [21]. In his study on students' perceptions on e-learning, he reported positive students' perception and attitude towards e-learning and learning management systems. He stated that availability, flexibility, and convenience are the factors that contributed to students' positive view on the LMS. These factors could be related to the interaction, instructional, and learning quality, the qualities investigated on in the current study. In the study of Makumane [22], it was posited that the positive perceptions of students on the learning management systems was due to their exposure to the content made available by the

teachers assigned to deliver the courses and on the efficiency of technological features. These claims relate to the findings of the current study that the students were appreciative of the lectures or modules made available by their teachers as well as the features of the learning management systems, such as discussion boards, comment sections, and rewards portion. As expounded in the study of Altunoglu [23], the perceived satisfaction of students on the LMS used was due to the quality and quantity of the content made available. As stated, content of lectures or modules was considered by the student participants in deciding whether the learning management systems were to be positively perceived or not. This could be linked to the three qualities assessed namely interaction, instructional, and learning quality. This implies that for the LMS to be in its full capacity, teachers must provide well-designed lectures or modules and take advantage of the different features of the learning management system. With this, the positive perceptions of students on learning management systems could be retained.

6.2 How Effective is the Learning Management System in Enhancing Communication Skills?

Based on the thematic analysis conducted, the learning management systems used were perceived by the respondents to have aided in building their self-confidence as well as their enhancement of written communication skills. For the first theme which is building of confidence, discussion boards, reward system, and modules and lectures were the codes generated from the responses of the student participants to the open-ended questions asked. For the second theme which is the enhancement of written communication skills, collaboration with peers, consultation with teachers, and exposure to creative ways of written presentations were the codes drawn from the short responses of student participants. The codes mentioned reinforced the theme generated, that students generally find the learning management systems used as a tool for building confidence as well as for enhancing their written communication skills. Features of the learning management systems used were cited as contributing factors to the building of confidence. Additionally, activities made possible by the teachers assigned through the utilized LMS led the student respondents to think that their written communication skills improved. Although generally, students view

learning management systems as functional when it comes to the enhancement of their oral communication skills, some respondents also expressed their dissenting opinions, hence, the creation of three themes in relation to students' perceptions namely, helpful, neutral, and challenging. Based on the thematic analysis conducted, LMS is helpful as it serves as an instrument for discussion and as a tool for expression of opinions. The LMS utilization is also perceived to be neutral due to the preference for other communication tools specifically Messenger for interaction to be made possible. Lastly, some student participants perceived the LMS to be challenging in terms of communication since they encountered difficulties in communicating with their peers as well as with their teachers. These perceptions link to how the learning management systems were utilized and how these aided the respondents in enhancing their written communication skills.

The themes and codes generated that connect to the enhancement of communication skills through the LMS used are reinforced by the responses of the student participants. As mentioned, the learning management systems used paved the way to further expression of opinions. As stated by one of the participants, "Yes. The discussion boards allowed students to share their thoughts on a question posted by their professor." This reinforces the code that discussion boards were instrumental in the building of confidence as well as in allowing the student participants to express their opinions. In relation to the reward system made available in the platforms utilized, one respondent said that "The system has a built in 'confetti' as a reward for submitting an activity or homework." This feature was said to have contributed to the building of confidence of the student participants. Additionally, modules and lectures aided in making the students more confident. As stated by one of the participants, "I think it did somehow make me more confident through the assurance of getting lectures." When it comes to the enhancement of written communication skills, collaboration with peers, consultation with teachers, and exposure to creative ways of written presentations contributed to the achievement of said outcome. In terms of collaboration with peers, a student participant stated that "Yes, it improved my communication skills by allowing me to be more open and confident in sharing my thoughts, ideas, and opinions about the activities." "Yes, since I

constantly communicate with teachers through the platform” is one of the statements that support the code that consultation with teachers aided the respondents in improving their written communication skills. “Astonishingly, the LMS did. I improved because the communication line between students and teachers are always open. I get to learn online etiquettes and creative presentations inside my classes.” The said statement reinforces the code that the learning management systems employed allowed the students to witness various ways of creatively presenting their thoughts in written format. All these testimonies strengthen the point that the LMS used in the schools where the students came from allowed them to enhance their communication skills.

In the study of Taufiqurrochman [24], students expressed their view that learning management systems have the potential to aid them in improving their skills, particularly in speaking and writing. This aligns with the expressed answers of the respondents of the current study that the learning management systems employed in their schools allowed them to improve their written communication skills. As discussed, the student participants in the current study expressed agreement to the claim that the LMS aided them in improving their written communication skills through discussion boards, modules or lectures, and reward system. This finding is supported by the study of Ramadania [25] as said author found that there is a likelihood to hone English communication skills more through the features of the LMS such as assignments, quizzes, feedback, and communication forums. In a related study of Terzioglu and Kurt [26], students perceived the LMS as a tool that would aid them in expressing their opinions, particularly through spoken modality. This links to the expressed thought of the current study’s respondents that the LMS allowed them to express their opinions. Although there were students who expressed dissent to the claim that their writing skills improved through the LMS, generally, student participants agreed that the LMS allowed them to express their opinions as well as hone their written communication skills. The dissenting opinions were due to the isolated encounters of the student participants with their peers and teachers through the LMS. Overall, the learning management systems have shown its capacity to hone the students’ communication skills. Through the intervention of the teachers as well as the right and maximum utilization of the LMS

features, improvement of communication skills would continue [27,28].

7. CONCLUSION AND RECOMMENDATIONS

The current study aimed to determine the perceptions on the utilization of learning management system and its effects on the communication skills of private senior high school students in Manila, the capital city of the Philippines. It has been found that students have a positive perception of learning management systems utilized in their respective schools that reflected their positive take on interaction, instruction, and learning quality. They highly regard it in making the process and experience of teaching and learning during the pandemic work. Utilizing the learning management system’s features and functions made collaboration and interaction between learners and teachers possible. Furthermore, three themes appeared to be common among student respondents’ perceptions of its utilization: helpful, neutral, and challenging. It is helpful because it is used as an instrument for discussion, neutral for some who prefer other communication platforms, and challenging as students encounter technical difficulties. Additionally, the use of learning management systems is perceived by the students to have helped in building their self-confidence and enhancement of written communication skills. On the other hand, it is also worth noting that some students expressed opposition regarding learning management systems’ aid in honing their communication skills. Hence, the current study recommends that schools conduct surveys to assess students’ experiences using their learning management systems. Additionally, it is important to organize professional development programs and activities for teachers in a timely manner to address the survey results. This is necessary to optimize the use of LMS by teachers, regardless of the mode of instruction (such as face-to-face, online, or hybrid). Further related studies regarding the state of LMS use and/or utilization in the current set-up of learning, especially since more students are back onsite, should also be explored. These measures are critical in ensuring technology’s effective and efficient integration into the new normal education system.

CONSENT AND ETHICAL APPROVAL

A letter of permission was sent to the school administrators before the beginning of data

collection. Once approved, the Google Forms link was shared with the students. The said data collection tool contained the consent form. The students were duly informed of the purpose of the study and to what extent their participation was needed. They were fully informed that they were free to discontinue their participation in the study if they were not fully comfortable to take part in it.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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