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Students' Appreciation of the Effectiveness of Learning Management System

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Abstract: *This study focuses on how students appreciated the effectiveness of the Learning Management System. Using a simple random probability sampling design, the participants of the study were 50 students enrolled in the first- and second-year of B.S.Ed.-Mathematics at Caraga State University, Philippines. It used an adoptive research questionnaire that was already proven its reliability and validity, and it includes information about the participants' profiles and students' appreciation of the effectiveness of LMS in terms of its design and delivery. Data revealed that the majority of participants were female. It further revealed that the participants agree that the effectiveness of LMS in terms of its design and delivery is high which means it is effective. Moreover, findings show that participants' appreciation has a significant difference when grouped according to profile. The study concluded that, despite the LMS use in our university being effective in helping students learn, challenges persisted throughout the participants' learning experiences regardless of the participants' sex and year level. The researchers then created an intervention material, which is a brochure containing the course subject, course syllabus, expected outcomes that the students will do at the end of every lesson, and the importance of its subject course. This brochure helps the students to become knowledgeable and responsible in taking their courses because they were educated through the brochure about the importance of its course subject and what are the expected outcomes students must.*

Keywords: Flexible learning, learning management system, students' appreciation

1.0 Introduction

In the 21st Century technology emerged so fast, that the learning of the students is boarder-less. Through the help of technology online learning is introduced especially today when the pandemic affects the lives of students. LMS are dominant in the instructional scene of higher education, and several studies are currently being conducted to determine the effectiveness of using LMS to improve student learning and overall performance. (Ahmed & Mesonovich 2019).

It's been a while since Learning Management System was used by the students since it's the new normal. LMS has been shown to have the ability to handle such tasks manually. There is a quiet elegance to combined studying, with its attraction that combined transport mechanisms are implemented, frequently without transcription and with no note in truth. According to Ahmed & Mesonovicg (2019), LMSs, also known as learning management systems, distributed learning structures, course management structures, content material control systems, portals, and educational management structures, combine a set of route or trouble management and pedagogical equipment to provide a technique for designing, building, and delivering online learning environments.

The assessment of the students is quite improving, it is easy for them to access their portal using this LMS. They can submit their activities and answer all the quizzes and exams through LMS. While learning usually does not provide face-to-face scrutiny of scholars (as is the case with video courses), the LMS structure offers a wealth of traditional and innovative methods for measuring college students.
Cumbersome Guides Advances with the additional benefits of automation of grading techniques (Andriotis 2017). But not all the students have the same experience because some of them don't want to use the LMS because of the internet connection and the server will down unexpectedly. Students' performance is a major concern nowadays, but LMS assist students in continuing their academics and improving their performance. This research will aid in understanding the true impact of the Learning Management System on student assessment. However, there are many factors to consider when using this LMS; thus, the researchers assess the selected BSED-Mathematics students to see if their performance in using the LMS improves after the school year.

This study aims to evaluate the selected BSED-Mathematics students' appreciation of the effectiveness of the learning management system and how it changes their way of learning.

Statement of the Problem

This study aimed to evaluate the student's appreciation of the effectiveness of the learning management system at Caraga State University for the academic year 2021-2022.

Specifically, it sought to answer the following questions:

1. What is the profile of the participants in terms of sex, and year level?
2. What is the student's appreciation of the effectiveness of the learning management system in terms of:

2.1 Design, and.
- 2.1.1 community-building and policy structure,
- 2.1.2 structure,
- 2.1.3 instructions,

2.1.4 teaching and learning,
2.1.5 technology and accessibility, 2.1.6 student learning assessment and,
2.1.7 support?

2.2 Delivery
2.2.1 community-building and policy structure,
2.2.2 structure,
2.2.3 instructions,
2.2.4 teaching and learning,
2.2.5 technology and accessibility, 2.2.6 student learning assessment and,
2.2.7 support?

3. Is there a significant difference in the student's appreciation of the effectiveness of the learning management system when grouped according to profile?
4. Based on the findings, what intervention material may be developed?

2.0 Theoretical Framework

This study is anchored on the theory of Lev Vygotsky's (2002) constructivism. According to Vigotsky, constructivism is an educational theory that, as a result of how instructors have adopted it as a pedagogical strategy in recent years, has significantly influenced educational practices. It has been characterized as a tool for changing the traditional classroom from one where teachers predominate to one where students do. Consequently, constructivism is a method of knowing.

Constructivist theories propose that learning is a social process that requires communication, interaction, and cooperation among learners as well as in real-world contexts. In the learning process, the students are viewed as being central. Our prejudices, experiences, the era in which we live, and our level of physical and mental development all have an impact on our ability to learn.

3.0 Methodology

This quantitative research used a survey research design. Check & Schutt as cited in Ponto (2015), Survey research is described as "the collecting of information from a sample of persons via their replies to questions.". Hence, Toepoel as cited in Demuyakor (2020), stated that online surveys are one of the most effective and cost-effective methods of gathering reliable data from people online. An online survey was used as it involved minimal cost and the responses gathered are highly accurate. The researchers asked permission from the campus administrator to conduct the study and then sent the survey questionnaires online to the study respondents using Google Forms. Informed consent was included in the form by the Data Privacy.

The researcher selected a sample for the study. Creswell (2012, p. 381) States that a sample is a group of study participants chosen from the target population from whom the researcher generalizes to the target population. The sample comprised students picked from the general population to participate in the study. The researcher used a simple random sampling technique in taking the sample interviews. In this study, the researcher took the sample by using simple random sampling because each member of the population had an equal chance of being selected. The function of simple random sampling is to choose individuals became sample who will be representative of the population Creswell (2012: 142) explains that a slight variation of the simple random sampling procedure is to use systematic sampling. In this study, the researcher used simple random samples to take 25 students at the first-year level, and 25 students at the second-year level majoring in BSED math so the total of the respondent in the study is 50.

The researcher uses a research instrument from another study so, no further validation or reliability test is needed. The survey questionnaire is composed of two parts The first part gathered personal information from the respondent, The second part was a survey of Student's Appreciation of the Effectiveness of the Learning Management System The questionnaire was prepared for a rating in a form of a five-rating scale. 5 very highly appreciated, 4 highly appreciated, 3 moderately appreciated, 2 less appreciated, and 1 not appreciated.

4.0 Results and Discussion

This chapter presents the analysis and interpretation of the gathered data which are presented in descriptive and tabular form. The results and discussion answer the statement of the problem presented in the previous chapter.

Problem 1. What is the profile of the participants in terms of sex, and year level?

Table 3 shows the profile of the participants in terms of sex and year level from BSED Mathematics. In this study, we have a total of 50 participants, 18 of them were male and 32 of them were female, 36% and 64% respectively. Among the 50 participants, 25 students enrolled in BSED Mathematics at the first-year level, and 25 students enrolled in BSED Mathematics at the second-year level, both 50% respectively. Thus, we have a total of 50 participants which is 34.2 % of the total population. This shows that more female students are determined to enroll in BSED Mathematics courses than male students. This is supported by the study of Alghamdi et al., (2020) that female was more likely to succeed academically than men because they are more persistent and dedicated than men.

Next, they highly appreciated the mean of 4.18 that course design fosters community with student-to-student collaboration, faculty-to-student interaction and student-to-faculty interaction through various course elements. They also highly appreciated with the mean of 4.24 that the syllabus clearly explains course prerequisites, netiquette, and other

policies and procedures of CSU, and the department and syllabus and course articulate CSU policies regarding accessibility, academic support, and student support, explaining how students can access related services and resources. Lastly, they highly appreciated the mean of 4.00 that the syllabus clearly states faculty response time for email plus other faculty expectations. Thus, the level of appreciation for Community-Building and Policy Awareness was high with an overall mean of 4.15.

Furthermore, when students feel that they belong to their academic community, that they matter to one another, and that they can find emotional, social, and cognitive support for one another, they can engage in dialogue and reflection more actively and take ownership and responsibility of their learning (Baker, 2010; Berry, 2019; Brown, 2001; Bush et al. 2010; Cowan, 2012; Lohr & Haley, 2018; Sadera et al., 2009),

Table 4.2 shows the level of appreciation of Structure. Most participants highly appreciated with a mean of 4.22 that navigation throughout the online components of the course is intuitive, logical, consistent, and efficient. Followed, they highly appreciated with a mean of 4.06 that the course has logically sequenced units and/or lessons that have an overview describing outcomes, activities, assignments, assessments, and resources. Next, they highly appreciated the mean of 4.32 that the learning sequence in the syllabus and course is identical; both clearly state measurable learning outcomes and clearly explain, from the student's perspective, how to meet the outcomes. They also highly appreciated the mean of 4.12 that the course design facilitates readability and minimizes distraction. Lastly, they highly appreciated the mean of 4.26 that the course integrates faculty expertise into research-based e-learning design principles. Thus, the level of appreciation of structure was high with an overall mean of 4.20.

Furthermore, the results of this study are supported by the article The importance of course structure in online education, through well-organized structure They were also able to remember the material well because of the reflection assignments, which replaced the multiple-choice knowledge test due to online education. Research also shows that a clear structure is especially imp in an online education setting; as there is less room for immediate, impromptu adjustments (Castro et al., 2016; Money & Dean, 2019).

Table 4.3 shows the level of appreciation of Instructions. Most participants highly appreciated the mean of 4.26 that the instructions clearly explain the course structure, how to begin the course, and how to locate and use course tools. Followed, they highly appreciated the mean of 4.36 and the instructions clearly distinguish between required and optional activities. Next, they highly appreciated the mean of 4.32 and that course instructions clearly explain the purpose of course materials and how they are to be used. They also highly appreciated the mean of 4.36 that the rich media, relevant to course content learning outcomes, are provided in multiple formats for ease of use and access to address diverse student needs. Lastly, they highly appreciated with a mean of 4.28 that all resources and materials used in the course are appropriately cited. Thus, the level of appreciation of Instructions was high with an overall mean of 4.32.

The findings show that the student is satisfied with the instructions that the school and the instructor give Instructions clearly distinguish between required and optional activities, and course instructions explain the purpose of course materials and how they are to be used. , etc, graduate/undergraduate students are more satisfied with the teacher's high-quality instruction than are the newcomer, Amrein-Beardsley and Berliner (2004).

Table 4.4 shows the level of appreciation of Teaching and Learning. Most participants highly appreciated with a mean of 4.30 that the instructions clearly explain the course structure, how to begin the course, and how to locate and use course tools. Followed, they highly appreciated the mean of 4.36 and the instructions clearly distinguish between required and optional activities. Next, they highly appreciated the mean of 4.30 and that course instructions clearly explain the purpose of course materials and how they are to be used. They also highly appreciated the mean of 4.36 that the rich media, relevant to course content learning outcomes, are provided in multiple formats for ease of use and access to address diverse student needs. Lastly, they highly appreciated with a mean of 4.22 that all resources and materials used in the course are appropriately cited. Thus, the level of appreciation of teaching and learning was high with an overall mean of 4.24.

The findings of the study revealed that students were satisfied with how LMS was designed in terms of its teaching materials that allow them to become hands-on in their learning. They also appreciated that course tools and course sites for learning provide easy access to course materials, state how they can meet the learning outcomes, and explain the requirements for student participation in learning activities and assignment completion. This finding was corroborated by the study of Sujarwo et al., (2020) that learning innovation through the use of online media is key to accelerating the learning process, as educators are forced to provide interactive and engaging online learning media. Therefore, the design of teaching and learning used in LMS helped develop students' capabilities.

Table 4.5 shows the level of appreciation of Technology and Accessibility. Most participants highly appreciated the mean of 4.08 that the syllabus clearly states minimum technology requirements (hardware, browser, software, etc.) and required technical skills of the student. Following, they highly appreciated the mean of 4.12 that the course provides an orientation opportunity for students to learn the basics of eLearning. Next, they highly appreciated the mean of 4.18 and that the course technologies are current and readily accessible to students. Proven effective course-relevant current and emerging technologies are used to support student achievement of the stated learning outcomes. They also highly appreciated the mean of 4.14 that the technology, media, and course tools support the course

learning outcomes, support student engagement, and guide the student to become an active learner. Lastly, they highly appreciated with a mean of 4.20 that the course features accessible technologies, and instructions for obtaining accommodation Thus, the level of appreciation of technology and accessibility was high with an overall mean of 4.14.

The result of the study revealed that students were satisfied while using LMS in their learning process despite the challenges of the covid -19 and slow internet connection in our country. Students believe that course technologies are current and readily accessible to students. They were proven effective and emerging technologies are used to support student achievement of the stated learning outcomes. The results of this study are supported by the study of Usman & Madudili (2019). The study found that an easily accessible and accessible learning environment guarantees effective teaching and learning, as well as student performance. Similarly, Mudassir & Norsuhaily (2015), revealed in their study that students from schools with adequate facilities, good teachers, and a favorable environment outperform those from schools with fewer facilities, unqualified teachers, and an unfavorable environment. Therefore, this means that better course technology and accessibility lead to better performance of the student.

Table 4.6 shows the level of appreciation for the Student Learning Assessment. Most participants highly appreciated with a mean of 4.38 that the course assessments are appropriate for online learning and measure content mastery, critical thinking skills, core learning, and achievement department-approved student-learning outcomes. Followed, they highly appreciated with a mean of 4.20 that the course grading policy is stated clearly and addresses specific and descriptive criteria for the evaluation of student work and participation, plus the time frame for grading and providing feedback on assignments. Next, they highly appreciated with a mean of 4.30 that the assessment instruments are sequenced, varied, and appropriate to the student work being assessed, and are consistent with course activities and resources. They also highly appreciated the mean of 4.18 that they have multiple opportunities to measure their learning progress. Lastly, they highly appreciated the mean of 4.22 that the Syllabus states instructor response time for grading and feedback on assignments. Thus, the level of appreciation for Student learning assessment was high with an overall mean of 4.26.

The findings revealed that students feel satisfied with the learning assessment that the instructor provided in their respective LMS. They perceived that assessment instruments were appropriate to their work being assessed, and it is consistent with course activities and resources. Also, they had opportunities to measure their learning progress. The result of the study is supported by an article in the Blackwood Department of Education (2016). They emphasized that the main purpose of learning assessment is to work together to help students achieve high standards and provide the basis for guiding future learning. Concerning the articles mentioned, Fisher (2022) emphasizes that assessments link student performance to specific learning goals and provide teachers and students with meaningful information about academic performance. Therefore, student learning assessment is an important part of any educational process.

Table 4.7 shows the level of appreciation for the Student Learning Assessment. Most participants highly appreciated the mean of 4.08 that the technical support is provided for students. The course clearly articulates how to access the help features of the course and how to obtain help from the instructor himself or herself. Followed, they highly appreciated with the mean of 4.14 that the training is provided to instructors in course mechanics and best practices for online instruction as manifested in the course design. Next, they highly appreciated the mean of 4.14 and that the instructors provide lectures as a way of helping students understand the lesson. They also highly appreciated the mean of 4.20 that the examples were given to guide the students. Lastly, they highly appreciated the mean of 4.20 that the instructors provide references to students for in-depth reading and further clarification. Thus, the level of appreciation of Support was high with an overall mean of 4.15.

The findings revealed that students feel satisfied with the support they received from their instructor while using LMS. LMS design allows students to perform their class tasks or activities meaningfully and actively despite the learning distance between students and teachers. This was supported by the study conducted by Binyamin et al., (2020) that when students perceive that LMS provides good learning support, the students tend to believe that it was useful for their learning. More specifically, students usually choose an LMS with the right and sufficient tools to support their education with the right support. Therefore, students highly appreciated the support provided by the LMS in terms of design.

Table 4.8 shows the summary of the mean and the level of appreciation of students on the effectiveness of the learning management system in terms of design. We can see above that the highest mean is Instructions with a mean of 4.32, SD=0.6, and the lowest mean is Technology and accessibility with a mean of 4.14, SD=0.82. Thus, the overall mean and the level of appreciation of students for the effectiveness of the learning management system in terms of design is 4.21 and SD= 0.79, and it was highly appreciated by the students.

The findings revealed that the LMS was effective according to the level of appreciation of the students in terms of its design. These are two of the highest means under Instructions “LMS provides instructions that clearly distinguish between required and optional activities and LMS provides rich media, relevant to course content learning outcomes in multiple formats for ease of use and access to address diverse student needs.” The result of the study was supported by Abdel-Maksoud, (2018) that user-friendliness of LMS or ease of use of new technology is the more important determinant of the acceptance of this new technology, which stresses the need to design user-friendly technologies, and that

does not require any physical or mental effort on the part of users.

The findings of the study also revealed that there are challenges that the students undergo in their study while using LMS in terms of its Technology and Accessibility. Though the technologies used are current and readily accessible to students but because of the slow internet connections, there were times that it became hustle to the side of the students. This finding is supported by (Susila et al., 2020) that there were students 52.6% have easy access to online learning. Internet, 47.1% have problems accessing the internet connection. One of the requirements for applying to online or blended learning is that students have internet access. Especially in this Covid-19 pandemic, it has to be your private computer or cellphones. This can be a big problem as the only requirement for online learning is the Internet Connection.

Problem 2.2 What is the student's appreciation of the effectiveness of the learning management system in terms of delivery; community-building and policy awareness, structure, instructors, teaching and learning, technology and accessibility, student learning assessment, and support?

This part presents the weighted mean and the level of appreciation of the students for the effectiveness of the learning management system in terms of delivery.

Table 5.1 shows the level of appreciation for Community-Building and Policy Awareness. The participants were highly appreciated with the mean of 4.26 that the instructor personalizes instruction within the parameters of CSU's research-based eLearning standards; thereby extending learning opportunities and engaging students in a learning experience that promotes CSU's vision and mission. Following, they highly appreciated with a mean of 4.20 that the class with a "Welcome" announcement and an introductory multimedia presentation. Next, the students highly appreciated with a mean of 4.20 that the instructor maintains a presence, responds to student emails and messages promptly, and actively engages students through forums and other course communication elements. They also highly appreciated the mean of 4.26 that the instructor highlights key syllabus and course information through a "Welcome" multimedia presentation and a "Welcome" announcement. Lastly, they highly appreciated the mean of 4.12 that the instructor's response to student emails is prompt and appropriate as stated in the syllabus. Thus, the level of appreciation for Community-Building and Policy Awareness was high with an overall mean of 4.21.

Furthermore, the results show that students value instructors' efforts in fostering CSU community building and policy awareness, as well as the method they create a comfortable learning environment for students by responding to all of their questions. According to the study by (Waldman 2016), the instructors support students' needs, as well as the method they create a comfortable learning environment for students by responding to all of their questions. For students to study well, they must feel safe, welcomed, and at ease.

Table 5.2 shows the level of appreciation of Structure. The participants highly appreciated with a mean of 4.28 that the navigation throughout the online components of the course is intuitive, logical, consistent, and efficient. Following this, they highly appreciated a mean of 4.18 that provide multiple learning opportunities for students to master the content. Next, the students highly appreciated with a mean of 4.18 that the instruction aligns with the syllabus; syllabus modifications by the instructor align with the master syllabus as developed within the department. They also highly appreciated the mean of 4.16 that the instructor adheres to readability standards when adding content. Lastly, they highly appreciated the mean of 4.24 that when adding content, the instructor follows research-based e-learning design standards regarding accessibility, readability, and learner-centered education. Thus, the level of appreciation of Structure was high with an overall mean of 4.21.

Hence, the above result is highly valued by the students because it truly assists the learners to grow and enhance their academic performance. Hence, the above result is highly valued by the students. According to Gopal et al (2021), an efficient structure will help to improve learners' performance by utilizing their knowledge and skills. It truly assists the learners to grow and enhance their academic performance.

Table 5.3 shows the level of appreciation of Instructions. The participants highly appreciated the mean of 4.26 that the instructor uses course-based communication tools to encourage and promote student mastery of learning outcomes as they are aligned with each of the various course learning activities. Followed, they highly appreciated with a mean of 4.20 that they achieve stated learning outcomes through course activities. Next, the students highly appreciated with a mean of 4.20 that their instructor engages with students via each of the course tools used for learning activities and promotes learning collaboration among students, and between students and the subject matter. They also highly appreciated the mean of 4.08 that their instructor makes use of personalized media and other media relevant to the content in ways that extend and contribute to student mastery of learning outcomes. Lastly, they highly appreciated with a mean of 4.24 that their instructor appropriately cites any added resources or materials. Thus, the level of appreciation of instructors was high with an overall mean of 4.20.

Furthermore, the above result indicates that the instructor is highly valued by the students for their hard work and dedication to assisting the students in learning everything and providing the tools that they require. This was supported by the study of Gopal et al (2021), Instructor has specialized teaching abilities and is aware of the demands of each student in terms of their education

Table 5.4 shows the level of appreciation of Teaching and Delivery. The participants highly appreciated with a mean of 4.16 that the instructor uses course pages and syllabus that state how students can meet the learning outcomes and explain the requirements for student participation in learning activities and assignment completion. Following, they highly appreciated with a mean of 4.24 that the instructor uses student-centered learning activities and promotes the achievement of measurable learning outcomes. Next, the students highly appreciated with a mean of 4.20 that the instructor engages students with course tools and learning activities that support their active learning through the promotion of student-to-student collaboration, faculty-to-student collaboration, and a variety of instructional models, methods, and materials. They also highly appreciated the mean of 4.22 that Course instructions clearly explain the purpose of course materials and how they are to be used. Lastly, they highly appreciated with a mean of 4.26 that Instructor maintains currency of instructional materials that contribute to student achievement of stated course learning outcomes and attaches instructional materials in formats (PDF for example) that can be opened in all systems. Thus, the level of appreciation of Teaching and Learning was high with an overall mean of 4.22.

Henceforth, the stated outcome shows that teaching and learning are highly valued by the students, and instructors tried their utmost to meet the demands of the learners. Intense learning environments are said to accelerate learning, which could put more demands on teachers, support systems, and students. New distribution methods require ongoing adjustment and evaluation to make sure that courses fulfill student needs as totally online options continue to grow (Roddy et al, 2017).

Table 5.5 shows the level of appreciation of Technology and Accessibility. The participants highly appreciated with a mean of 4.34 that the Course delivery system faculty, staff, and contractors ensure requisite technology is available to students and that it works with the identified hardware, browsers, and other software. Following, they highly appreciated with a mean of 4.20 that the instructor conducts orientation opportunities on e-learning and ensures students participate in it. Next, the students highly appreciated with a mean of 4.26 that the instructor monitors student participation in the course to determine whether participation is impeded due to technology. They also highly appreciated the mean of 4.22 that Students needing special accommodations can access course content and activities through equivalent alternatives to auditory and visual content. Lastly, they highly appreciated the mean of 4.28 that Students needing special accommodations can access course content and activities through equivalent alternatives to auditory and visual content. Thus, the level of appreciation of Technology and Accessibility was high with an overall mean of 4.26.

The finding shows that the student is satisfied with the technology and accessibility they say that the technology and accessibility that the school provides can benefit greatly from e-learning, not just because it allows distance and flexible learning activities, but also because it helps students with accessing resources which would otherwise present significant barriers for them.

Table 5.6 shows the level of appreciation for the Student Learning Assessment. The participants highly appreciated the mean of 4.26 that Evidence from students' work and course tools confirms content mastery, critical thinking skills, and core learning of department-approved student-learning outcomes. Followed, they highly appreciated with a mean of 4.12 that the instructor assesses student work and participation using the stated grading policy, provides summative feedback that references stated grading criteria, and posts grades within the time frame specified by the syllabus. Next, the students highly appreciated with a mean of 4.16 that the instructor draws attention to assessment instruments when engaged in the course interactive communication (video-conferencing or video lectures). They also highly appreciated the mean of 4.22 that they assess their understanding of course content through self-assessment instruments or rubrics. Lastly, they highly appreciated the mean of 4.16 that the instructor provides prompt, constructive feedback on student assignments by stating expectations in the syllabus. Thus, the level of appreciation for the Student Learning Assessment was high with an overall mean of 4.18.

The findings show that the learning assessment the instructor give is effective. This result was supported by the study of Gaytan and McEwen (2007) learning assessment methods like video lectures online assignments, etc. found to be particularly effective in the online environment.

Table 5.7 shows the level of appreciation of Support. The participants highly appreciated the mean of 4.18 that the instructor makes use of appropriate communication tools and help resources within the course to quickly direct students to resolve technical obstacles. Followed, they highly appreciated with a mean of 4.18 that Instructor takes advantage of the training offered and demonstrates their learning in the online classroom. Next, the students highly appreciated with a mean of 4.26 that the instructor uses video-conferencing or video lectures as a way of helping students understand the lesson. They also highly appreciated the mean of 4.18 that the instructor provides examples through conferencing or lectures about the topic to guide students. Lastly, they highly appreciated the mean of 4.26 that the instructor indicates a list of references in lessons so students can do in-depth reading and make clarifications regarding the topic. Thus, the level of appreciation of Support was high with the over

Problem 3. Is there a significant difference in the student's appreciation of the effectiveness of the learning management system when grouped according to profile?

This part shows a significant difference in the student's appreciation of the effectiveness of the learning management system when grouped according to profile.

When grouped by profile, Table 6 reveals a statistically significant difference in the student's appreciation of the effectiveness of the learning management system. The student's appreciation of the effectiveness of the learning management system differs significantly, as shown by the variable sex with a t-value of 24.48. The student's perception of the usefulness of the learning management system differs significantly at the variable year level, as indicated by the t-value of 29.42.

According to Philly (2019), The results show that there was a significant distinction between the groups by profile. All of the LMS features looked at received extremely high ratings from faculty members whose level of participation in LMS is medium or above. The system's primary benefit is that it effectively handles time and location restrictions while serving as a core for students' learning.

Problem 4. Based on the findings, what intervention material may be developed?

Based on the results gathered and data analyzed, the researcher's study concluded that students feel satisfied with the Learning Management System used by our institutions. The students believe that it helps them a lot to have a better learning experience despite the many challenges that we face because of the covid-19 and poor internet connection in our country. However, to ensure that all students were knowledgeable of what are the expected tasks or activities and learning competencies they must acquire or they must do throughout the semester regardless if they have an internet connection or not, the researcher proposed a brochure that contain all the course subjects, learning competencies and expected task or activities for the students in each semester to perform so that students were already knowledgeable on what is expected for them to do. Also, it must be highlighted in the brochure about the importance or purpose of the course subject that the students will take so that he/she will have a clear direction in taking his/her course subject every semester.

5.0 Conclusions

Based on the study, the following conclusions are shown:

The majority of the participants of the study are 1ST and 2ND-year students in secondary education in mathematics and were female. The findings revealed the level of appreciation towards the effectiveness of using learning management systems in terms of design. It shows the student is satisfied with the design learning management system, in terms of community building and policy awareness, structure, instructions, teaching and learning, technology and accessibility, student learning assessment, and support that the school designed results show that it is effective where the student can easily access the learning materials also, they can comprehend the learning easily. Furthermore, it revealed the level of appreciation for the effectiveness of the learning management system in terms of delivery. It shows that the student is satisfied with delivering on the learning management system that the school and instructor give. In terms of building community and policy awareness, instructor, instructions, teaching and learning, technology and accessibility, student learning assessment, and support that the school and instructor delivered majority of the respondent said that they highly appreciated the delivery that the school and instructor provide student says it is good where they can enhance their academic performance and it makes the learning environment comfortable. Additionally, the study shows that there is a significant difference in the student appreciation of the effectiveness of the Learning Management System when grouped according to Profile. Lastly, the Implementation of a brochure that contains all academic activities and the course is proposed for the student can access the learning with or without an internet connection.

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