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Research Article

CHALLENGES OF TEACHER'S IN SENIOR HIGH SCHOOL K TO 12 IMPLEMENTATION: BASIS FOR LMS DESIGN IN BOHOL

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Abstract

The implementation of the Enhanced K to 12 Basic Education Program in the Philippines has introduced significant instructional and systemic challenges, particularly at the senior high school level. This study aimed to examine the challenges encountered by senior high school teachers in Bohol and to utilize these findings as a basis for designing relevant Learning Management System (LMS) features. Employing a descriptive-comparative research design, data were collected from 245 teachers using a validated questionnaire. Statistical tools including frequency, percentage, weighted mean, and independent samples t-test were used to analyze the data. Findings revealed that teachers, especially in public schools, experience notable challenges in the implementation of the K to 12 program. The most critical issues identified include insufficient learning materials, lack of teacher's guides, delays in the distribution of instructional resources, and limited training opportunities. A significant difference was found in the level of challenges encountered between public and private school teachers. However, no significant difference was observed in their perceived importance of LMS features, with both groups rating all features as very important. The study highlights that while contextual disparities exist, teachers share a common recognition of the value of LMS in addressing instructional challenges. It concludes that effective K to 12 implementation requires strengthened institutional support systems and the integration of context-responsive LMS platforms. The study contributes to educational practice by proposing LMS as a strategic solution to enhance instructional delivery, improve access to resources, and support teacher performance in diverse educational settings.

Keywords: K to 12 implementation, Teacher challenges, Learning Management System, Senior high school, Educational technology, Bohol.

INTRODUCTION

The implementation of the Enhanced K to 12 Basic Education Program in the Philippines represents one of the most significant educational reforms in the country's history. Anchored on national development goals and aligned with global education frameworks such as UNESCO's Education for All (EFA) and Sustainable Development Goal 4, the reform extended basic education by adding Senior High School (SHS) to better prepare learners for higher education, employment, and entrepreneurship. This reform was institutionalized through Republic Act No. 10533, also known as the Enhanced Basic Education Act of 2013, which mandates the development of 21st-century competencies, lifelong learning skills, and global competitiveness among Filipino graduates.Despite its policy strength and developmental intent, the transition to the K to 12 system has been widely documented as complex and challenging in implementation. Studies have consistently reported issues related to inadequate instructional materials, insufficient teacher training, lack of learning facilities, and curriculum misalignment (Barrot, 2021; Dizon *et al.,* 2019). Similarly, international evidence from the World Bank (2020) highlights that resource shortages and logistical delays negatively affect instructional delivery, while the OECD (2019) emphasizes that rapid curriculum reforms often exceed the readiness of teachers and education systems to implement them effectively.In the Philippine context, these challenges are particularly pronounced in Senior High School due to its relatively recent implementation and the simultaneous demand for subject specialization across academic, technical-vocational, and livelihood tracks. Teachers are expected to deliver specialized content while adapting to new pedagogical approaches, often with limited training and insufficient instructional support. This situation creates a gap between policy expectations and classroom realities, thereby affecting the overall quality of teaching and learning.This study is anchored on Constructivist Learning Theory, as advanced by Jean Piaget and Lev Vygotsky, which posits that learners construct knowledge actively through interaction with their environment, prior knowledge, and social experiences. Vygotsky's concept of the Zone of Proximal Development (ZPD) further emphasizes the importance of guided learning and scaffolding, where teachers play a critical role in facilitating meaningful learning experiences.In the context of the K to 12 implementation, constructivism underscores the need for learner-centered instruction, active engagement, and contextualized teaching strategies. However, the realization of such pedagogy requires adequate instructional resources, teacher preparedness, and supportive learning environments. When these conditions are lacking, teachers face difficulties in translating curriculum standards into effective classroom practice. This theoretical lens supports the view that instructional challenges are not merely operational issues but are deeply connected to the availability of enabling systems such as learning technologies and structured support mechanisms like Learning Management Systems (LMS).The study is further grounded on several legal and policy frameworks that govern the Philippine education system. The 1987 Philippine Constitution (Article XIV, Section 1) mandates the State to protect and promote the right of all

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citizens to quality education at all levels and to take appropriate steps to make education accessible to all. This constitutional mandate is operationalized through Republic Act No. 10533 (Enhanced Basic Education Act of 2013), which institutionalized the K to 12 curriculum and emphasized relevance, quality, and global alignment of basic education.Additionally, the Department of Education (DepEd) Order No. 21, s. 2019 and related policy issuances emphasize continuous improvement in curriculum implementation, teacher professional development, and integration of technology in education. These policies collectively support the use of digital learning platforms and instructional innovations to enhance teaching effectiveness and learner engagement, especially in response to emerging educational challenges.

RELATED LITERATURE AND STUDIES

A growing body of literature highlights persistent implementation challenges in the K to 12 program. Barrot (2021) found that Filipino teachers continue to experience difficulties in curriculum delivery due to insufficient teaching resources and limited instructional support. Dizon et al. (2019) further reported that teachers often feel inadequately prepared for SHS instruction, particularly in specialized subjects, due to gaps in training and professional development. Crisol, Alamillo, and Balce (2014) emphasized that the success of curriculum reform is highly dependent on teacher readiness, noting that many educators experienced adjustment difficulties during the early implementation of K to 12. Similarly, Alegado (2018) found that teachers' pedagogical adaptation was constrained by limited exposure to learner-centered strategies and insufficient institutional support.

International studies reinforce these findings. The OECD (2019) noted that education reforms frequently fail when teacher capacity development is not aligned with policy changes. The World Bank (2020) also stressed that education systems in developing countries often struggle with infrastructure gaps and unequal resource distribution, which directly affect instructional quality and learning outcomes.Emerging literature on educational technology suggests that Learning Management Systems (LMS) can address many of these challenges. LMS platforms provide centralized access to instructional materials, enable blended learning, support continuous assessment, and facilitate real-time monitoring of student progress. Studies have shown that LMS integration enhances instructional efficiency, promotes learner engagement, and supports teacher professional development, particularly in resource-constrained environments. While previous studies have extensively documented the challenges of K to 12 implementation, there remains a gap in translating these challenges into concrete technological solutions grounded in teacher experience, particularly at the local level. In the context of Bohol, limited empirical studies have systematically examined how teacher-identified challenges can inform the design of Learning Management System features tailored to actual classroom needs.This study addresses this gap by integrating empirical evidence from senior high school teachers' experiences with LMS design considerations. It positions LMS not merely as a technological tool but as a responsive instructional system grounded in contextual realities. By doing so, it contributes to both educational innovation and policy enhancement, particularly in strengthening the implementation of the K to 12 program.

Objectives of the Study

This study aimed to examine the challenges encountered by senior high school teachers in the implementation of the Enhanced K to 12 Basic Education Program in Bohol, and to utilize the findings as a basis for designing relevant Learning Management System (LMS) features.

Specifically, it sought to:

1. Identify the challenges encountered by senior high school teachers in the implementation of the K to 12 program in terms of: curriculum delivery, instructional resources, assessment practices, workload and time management and technological integration.
2. What is the degree of importance of selected Learning Management System (LMS) features as perceived by teachers.
3. Propose LMS features that directly address the identified challenges in the implementation of the senior high school program.
4. Is there a significant difference in the challenges encountered by senior high school teachers in the implementation of the K to 12 program when grouped according to
5. Is there a significant difference in the perceived importance of selected Learning Management System (LMS) features between public and private senior high school teachers?

METHODOLOGY

Research Design

This study employed a descriptive-comparative research design to examine the challenges encountered by senior high school teachers in the implementation of the Enhanced K to 12 Basic Education Program and to determine the perceived importance of selected Learning Management System (LMS) features. The descriptive component was used to identify and quantify the extent of challenges experienced by teachers in terms of curriculum delivery, instructional resources, assessment practices, workload and time management, and technological integration. The comparative component was utilized to determine significant differences in responses when grouped according to school type (public and private).This design is appropriate as it allows systematic analysis of existing conditions and comparison of perceptions without manipulation of variables, making it suitable for educational policy and instructional system development studies.

Research Locale

The study was conducted in selected public and private Senior High Schools in the Province of Bohol, Philippines. Bohol was chosen as the study site due to its diverse educational contexts, representing both well-resourced and resource-constrained school environments. This setting provides a relevant context for examining disparities in K to 12 implementation experiences and technological readiness among teachers.

Respondents of the Study

The respondents of the study were senior high school teachers from both public and private institutions in Bohol. A stratified random sampling technique was employed to ensure

proportional representation of teachers from different school types. A total of 245 senior high school teachers participated in the study. The stratification was based on school classification (public and private), ensuring that comparisons between groups were statistically valid and representative of the population. Data were collected using a researcher-made structured questionnaire designed to gather comprehensive information on senior high school teachers' experiences and perceptions. The instrument consisted of two main parts. The first part focused on the profile of the respondents, which included variables such as age, gender, years of teaching experience, highest educational attainment, and school type, whether public or private. The second part focused on the survey proper, which examined the challenges encountered in the implementation of the K to 12 program and the perceived importance of selected Learning Management System (LMS) features.The section on challenges covered five key domains, namely curriculum delivery, instructional resources, assessment practices, workload and time management, and technological integration. Meanwhile, the LMS section assessed teachers' perceived importance of specific system features that are aligned with the identified instructional and operational challenges.To ensure the validity of the instrument, it was subjected to content validation by experts in education and instructional technology, who reviewed its relevance, clarity, and alignment with the research objectives. Furthermore, the questionnaire underwent pilot testing to establish its reliability. The results yielded a Cronbach's alpha coefficient of 0.9265, indicating excellent internal consistency and confirming that the instrument was reliable for use in the actual data collection.

Data Gathering Procedure

Prior to data collection, formal permission was secured from the appropriate educational authorities and school administrators. After approval, the researchers conducted coordination meetings with school heads to facilitate the distribution of questionnaires.A briefing session was held with the respondents to explain the purpose of the study, ethical considerations, and instructions for accomplishing the survey instrument. Participation was voluntary, and respondents were assured of confidentiality and anonymity of their responses.The questionnaires were personally distributed and retrieved by the researchers to ensure a high response rate and completeness of data.

Data Analysis

The collected data were systematically processed and analyzed using appropriate statistical tools aligned with the objectives of the study. Frequency counts and percentages were employed to describe the profile of the respondents in terms of demographic and professional characteristics. The weighted mean was utilized to determine the extent of challenges encountered by senior high school teachers in the implementation of the K to 12 program, as well as to assess their perceived importance of selected Learning Management System (LMS) features. Furthermore, the independent samples t-test was applied to determine whether significant differences exist in the challenges encountered by teachers when grouped according to school type (public and private), as well as in their perceived importance of LMS features between the two groups. All statistical analyses were interpreted at a 0.05 level of significance to determine the acceptance or rejection of the null hypotheses.

RESULTS AND DISCUSSION

This section presents and analyzes the findings of the study on the challenges encountered by senior high school teachers in the implementation of the K to 12 program in Bohol and their perceived importance of Learning Management System (LMS) features. The results are organized according to the study objectives, beginning with the profile of the respondents, followed by the extent of challenges across key domains, the evaluation of LMS features, and the determination of significant differences between public and private school teachers. The findings are interpreted using appropriate statistical measures and are discussed in relation to existing literature and the study's theoretical framework to provide a deeper understanding of how these challenges inform the design of responsive and context-based LMS solutions.

Table 1. Profile of the Teacher-Respondents in Bohol (n=245)

Variable	Frequency	Proportion (%)
Gender		
Male	51	20.82
Female	194	79.18
Highest Educational Attainment		
Doctoral Degree	12	4.90
Master's Degree	21	8.57
College Degree	212	86.5
Number of Years in Work		
More than 25 years	5	2.04
21 - 25 years	10	4.08
16 - 20 years	12	4.90
11 - 15 years	14	5.71
6 - 10 years	35	14.29
1 - 5 years	148	60.41
Less than 1 year	21	8.57

Table 1 presents the profile of the teacher-respondents in Bohol (n = 245) in terms of gender, highest educational attainment, and length of teaching experience.In terms of gender, the majority of the respondents were female (79.18%), while only 20.82% were male, indicating that the teaching workforce in senior high schools is predominantly female.With respect to highest educational attainment, most of the respondents were college degree holders (86.50%), followed by those with master's degrees (8.57%), and a small proportion with doctoral degrees (4.90%). This suggests that while the majority meet the minimum qualification requirements for teaching, relatively few have pursued advanced graduate education.

In terms of length of teaching experience, a significant proportion of the respondents had 1–5 years of experience (60.41%), followed by those with 6–10 years (14.29%) and less than one year (8.57%). Only a small percentage had more than 15 years of experience. This indicates that the majority of senior high school teachers are relatively early in their careers, which may be attributed to the recent implementation of the K to 12 program requiring the hiring of new teaching personnel.
Overall, the findings show that the teacher-respondents are predominantly female, largely hold basic academic qualifications, and are mostly early-career professionals, which may have implications for instructional delivery, professional development needs, and program implementation support.

Table 2. Problems Encountered by the Teachers in the Implementation of Senior High School in Bohol

	Public School Teachers			Private School Teachers		
Problems Encountered	Mean	Description	Rank	Mean	Description	Rank
Oversized classes in a classroom.	1.97	Quite Serious	12	1.68	Not Serious	10
Lack of classrooms.	2.37	Quite Serious	5	1.61	Not Serious	16
Classrooms are not conducive to learning.	2.07	Quite Serious	11	1.63	Not Serious	15
Schools facilities do not meet the required standards.	1.72	Not Serious	17	1.85	Quite Serious	3
Lack of facilities for laboratory subjects like /computer, biology, physics, etc.	2.59	Serious	4	1.67	Not Serious	11
There are a lot of subjects in the curriculum.	2.11	Quite Serious	8	1.84	Quite Serious	4
The scheduling does not support continued assessment of student's learning experiences.	1.78	Quite Serious	15	1.44	Not Serious	18
Long delay in the delivery of learning materials	2.63	Serious	3	1.64	Not Serious	14
Learning materials are unavailable or not enough.	2.90	Quite Serious	1	1.83	Quite Serious	5
Lack of textbooks for the students.	2.21	Quite Serious	7	1.77	Quite Serious	7
There is a lack of teacher's guide in each of the subjects in the Grade 11.	2.82	Serious	2	1.87	Quite Serious	2
Some learning materials are haphazardly prepared with errors in contents.	2.24	Quite Serious	6	1.66	Not serious	12
Not enough teachers for the number of students.	2.08	Quite Serious	10	1.57	Not serious	17
Some teachers are not qualified to teach their assigned subject/s.	1.75	Quite Serious	16	1.72	Not serious	8.5
There was a rush training of teachers on K to 12.	2.10	Quite Serious	9	1.90	Quite Serious	1
Dearth of training for teachers how to teach the subjects in the Grade 11 curriculum.	1.90	Quite Serious	13	1.79	Quite Serious	6
Lack of skilled teachers to teach the Tech Voc subjects.	1.83	Quite Serious	14	1.65	Not serious	13
The teacher has anxieties over the new duties expected of him.	1.37	Not serious	18	1.72	Not serious	8.5
Overall Mean	2.14	Quite Serious		1.71	Not Serious	

Legend: 3.25 - 4.00 (Fully Implemented); 2.50 - 3.24 (Moderately Implemented); 1.75 - 2.49 (Partially Implemented); 1.00 - 1.74 (Not Implemented)

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Legend: 3.25 - 4.00 (Fully Implemented); 2.50 - 3.24 (Moderately Implemented); 1.75 - 2.49 (Partially Implemented); 1.00 - 1.74 (Not Implemented)

Table 2 presents the problems encountered by teachers in the implementation of the Senior High School program in Bohol, disaggregated by school type. The findings reveal a clear disparity between public and private school contexts. Overall, public school teachers perceived the problems as "quite serious" (M = 2.14), whereas private school teachers rated them as "not serious" (M = 1.71), indicating that implementation challenges are more pronounced in public schools. This disparity reflects structural and resource inequalities that commonly characterize public and private educational institutions (UNESCO, 2021).Among public school teachers, the most pressing concerns were related to instructional resources and material support. The top-ranked problems include insufficient learning materials (M = 2.90), lack of teacher's guides for Grade 11 subjects (M = 2.82), and delays in the delivery of learning materials (M = 2.63), all interpreted as serious. These findings suggest systemic inefficiencies in resource allocation and distribution, which may significantly hinder effective curriculum implementation. Similar issues have been reported in developing educational systems, where shortages in instructional materials and delayed provisioning disrupt teaching and learning TProcesses (World Bank, 2020).In contrast, private school teachers did not identify any problems at the "serious" level.

However, relatively higher concerns were observed in teacher preparation and infrastructure, including rushed training related to K to 12 implementation (M = 1.90), lack of teacher's guides (M = 1.87), and inadequate school facilities (M = 1.85), all interpreted as quite serious. These findings indicate that while private schools may experience fewer resource constraints, challenges in professional development and instructional support remain evident.

This aligns with studies emphasizing that rapid curriculum reforms often lead to gaps in teacher readiness and training quality (OECD, 2019).Across both groups, concerns related to teacher qualifications, workload, and learner-related issues were generally perceived as less serious. This suggests that the primary barriers to effective implementation are institutional and systemic in nature, rather than deficiencies in teacher competence. Prior research supports this observation, highlighting that successful curriculum reform depends more on systemic support mechanisms than on individual teacher capacity alone (Department of Education Philippines, 2016).Overall, the findings underscore the need to address resource availability, instructional support, and continuous teacher training as critical components of successful program implementation.

Table 3. Degree of Importance of the Features of a Proposed Learning Management System as Perceived by the Teachers in Bohol

	Public School Teachers			Private School Teachers		
Learning Management Systems (LMS) …	Mean	Interpretation	Rank	Mean	Interpretation	Rank
1. Is user-friendly, which means that users can figure everything out easily.	3.25	Very Important	10	3.53	Very Important	5
2. Organizes learning content in one location.	3.48	Very Important	7	3.44	Very Important	10
Provides unlimited access to learning materials.	3.58	Very Important	3	3.67	Very Important	4
3.Easily track learner progress and performance.	3.54	Very Important	4	3.75	Very Important	2
4.Allows the addition of online modules.	3.45	Very Important	8	3.52	Very Important	7
5. Combines multiple forms of learning including eLearning, simulation-based learning, and mobile learning, even classroom-based learning.	3.52	Very Important	6	3.69	Very Important	3
6. Allows multiple users to access the learning tools at the same time.	3.42	Very Important	9	3.44	Very Important	9
7. Allows users to be evaluated before they take the course, while they are in the course and when their finish the course.	3.53	Very Important	5	3.46	Very Important	8
8. Includes links to Facebook and Twitter, LinkedIn groups.	3.66	Very Important	2	3.99	Very Important	1
9. Includes the use of math manipulative emerging mathematical technologies, in-depth laboratory experiments, original document analysis, debate or speech presentation, current event discussions, peer reviewing, project-based learning, and skill development or concept practice.	3.78	Very Important	1	3.52	Very Important	6
Overall Mean	3.52	Very Important		3.60	Very Important	

Legend: 3.25 - 4.00 (Fully Implemented); 2.50 - 3.24 (Moderately Implemented); 1.75 - 2.49 (Partially Implemented); 1.00 - 1.74 (Not Implemented)

These challenges provide a strong empirical basis for the development of a Learning Management System (LMS) that can enhance access to learning materials, streamline instructional delivery, and support ongoing teacher development. Technology-enabled solutions such as LMS platforms have been shown to mitigate resource gaps and improve instructional efficiency in similar educational contexts (Educational Technology literature).

Table 3 presents the degree of importance of selected features of a proposed Learning Management System (LMS) as perceived by teachers in Bohol, categorized according to school type. The results indicate that both public (M = 3.52) and private school teachers (M = 3.60) consistently rated all LMS features as "very important," reflecting a strong consensus on the relevance of LMS integration in supporting senior high school implementation.Among public school teachers, the most important LMS feature identified was the system's ability to support diverse and interactive learning approaches, including the integration of mathematical technologies, laboratory activities, project-based learning, and other higher-order learning tasks (M = 3.78, Rank 1). This was followed by the inclusion of social media linkages such as Facebook, Twitter, and LinkedIn (M = 3.66, Rank 2), and the provision of unlimited access to learning materials (M = 3.58, Rank 3). These findings suggest that public school teachers prioritize LMS features that enhance instructional delivery, accessibility, and learner engagement, particularly in contexts where physical resources may be limited.

In contrast, private school teachers ranked social media integration as the most important feature (M = 3.99, Rank 1), followed by the system's capability to track learner progress and performance (M = 3.75, Rank 2), and its ability to support blended and multimodal learning approaches (M = 3.69, Rank 3). These results indicate a stronger emphasis on connectivity, monitoring, and flexible learning environments, reflecting a more technologically supported instructional context.Across both groups, features related to content organization, accessibility of materials, learner assessment, and multi-user access were all rated highly, underscoring the need for an LMS that is comprehensive, interactive, and accessible. Notably, even the lowest-ranked features in both groups remained within the "very important" range, indicating that teachers perceive LMS functionalities as essential rather than optional components of effective instruction.

Overall, the findings highlight a strong demand for LMS platforms that not only centralize learning resources but also support interactive, data-driven, and flexible teaching and learning processes. These results reinforce the role of LMS as a critical tool in addressing instructional challenges and enhancing the implementation of the senior high school program.The results reveal a statistically significant difference in the problems encountered in the implementation of the K to 12 Program between public and private senior high school teachers ($t = 4.24$, $p = 0.002$), leading to the rejection of the null hypothesis. This indicates that teachers from the two school types differ significantly in their perceptions of the challenges associated with program implementation.The significant variation suggests that institutional context plays a critical role in shaping implementation experiences. Public schools, which often operate under constraints in funding, infrastructure, and instructional resources, may experience more pronounced challenges compared to private schools. These differences are consistent with broader educational research indicating that disparities in resource allocation and systemic support contribute to uneven implementation outcomes across school settings.

This finding is supported by the work of Danilo R. Barrot (2021), who emphasized that the K to 12 reform in the Philippines presents challenges related to instructional delivery, assessment practices, and teacher preparedness. Similarly, the World Bank (2020) reported that limitations in learning materials and delays in resource provision significantly affect the quality and effectiveness of curriculum implementation, particularly in public education systems.The presence of a significant difference underscores the need for targeted and context-sensitive interventions rather than a uniform implementation approach. It highlights the importance of strengthening support systems in resource-constrained environments through improved access to instructional materials, sustained teacher professional development, and enhanced technological integration. In this context, the development of adaptive solutions such as Learning Management Systems (LMS) becomes essential, as these platforms can help bridge resource gaps, standardize access to learning materials, and support more efficient and equitable implementation of the K to 12 program across diverse educational settings

Table 4. The significant difference in the perceived importance of selected Learning Management System (LMS) features between public and private senior high school teachers

Variables	Computed t-value	p-value	Decision on Ho	Interpretation
Degree of importance of LMS	2.1	0.27	Accept Ho	Not Significant

The results indicate that there is no statistically significant difference in the perceived importance of selected Learning Management System (LMS) features between public and private senior high school teachers ($t = 2.1001$, $p = 0.27$). Therefore, the null hypothesis is not rejected. This implies that teachers, regardless of school type, exhibit a similar level of perception regarding the importance of LMS functionalities.

The lack of significant difference suggests a shared and consistent recognition among teachers of the value of LMS features in supporting instructional delivery, assessment processes, and classroom management. This uniformity may indicate that both public and private school teachers experience comparable instructional demands that necessitate the integration of digital learning platforms. This finding is supported by existing literature, which emphasizes that educators across different institutional contexts increasingly acknowledge the role of technology in enhancing teaching and learning processes. For instance, the OECD (2019) highlights that digital learning platforms, such as LMS, provide centralized access to instructional resources, enable efficient monitoring of learner progress, and support flexible and blended learning environments. Moreover, the consistent perception among teachers may also reflect common challenges encountered in the implementation of the K to 12 program, particularly in terms of limited instructional resources and the need for more efficient delivery systems. The Department of Education Philippines (2016) underscores that the integration of technology in education serves as a strategic approach to addressing gaps in access, quality, and teacher support.Overall, the findings suggest that LMS adoption is widely recognized as essential across both public and private school settings, reinforcing its potential as a unifying and scalable solution to enhance the effectiveness of K to 12 program implementation.

Conclusion

The study affirms that the success of the K to 12 implementation is not determined by curriculum design alone, but by the strength of the systems that support teachers in delivering it. The most pressing challenges that demand immediate attention include insufficient learning materials, lack of teacher's guides, delays in the distribution of instructional resources, and gaps in teacher training. These issues reflect systemic constraints that significantly affect instructional delivery, particularly in resource-limited school contexts.At the same time, the shared recognition among teachers of the importance of Learning Management Systems highlights a clear pathway for addressing these challenges. The findings imply that meaningful educational reform must move beyond policy intentions toward the provision of responsive and technology-enabled support systems. When grounded in teachers' actual experiences, Learning Management Systems have the potential to evolve from supplementary tools into essential instructional infrastructures that enhance access to resources, improve teaching efficiency, and promote equity and quality in the implementation of the K to 12 program.The study affirms that the success of the K to12 implementation is not determined by curriculum design alone, but by the strength of the systems that support teachers in delivering it. The most pressing challenges that demand immediate attention include insufficient learning materials, lack of teacher's guides, delays in the distribution of instructional resources, and gaps in teacher training. These issues reflect systemic constraints that significantly affect instructional delivery, particularly in resource-limited school contexts.At the same time, the shared recognition among teachers of the importance of Learning Management Systems highlights a clear pathway for addressing these challenges. The findings imply that meaningful educational reform must move beyond policy intentions toward the provision of responsive and technology-enabled support systems. When grounded in teachers' actual experiences, Learning Management Systems have the potential to evolve from supplementary tools into essential instructional infrastructures that enhance access to resources, improve teaching efficiency, and promote equity and quality in the implementation of the K to 12 program.

Recommendations

Translationally, the findings of this study highlight the need for a strengthened and well-monitored implementation of the Senior High School program through the collaborative efforts of the academe, government, and other educational stakeholders. A systematic review and evaluation of the availability, adequacy, and timely distribution of instructional materials and resources is strongly recommended, particularly in public schools where challenges are more pronounced. Additionally, the Department of Education (DepEd) should conduct an inventory and assessment of school laboratories, ICT facilities, and other learning infrastructures to ensure that learning environments are responsive to the demands of the K to 12 curriculum. Consideration may also be given to the hiring of additional qualified teachers to address workload concerns and improve instructional delivery. Furthermore, the number of instructional hours and workload distribution of senior high school teachers may be reviewed to ensure efficiency, sustainability, and quality of teaching and learning processes.In terms of instructional innovation, the development and implementation of a context-based Learning Management System (LMS) is strongly recommended as a practical translation of the study's findings into educational technology solutions. Such an LMS should incorporate centralized access to learning resources, automated distribution of instructional materials, integrated assessment tools, and real-time progress monitoring features aligned with the K to 12 curriculum. The Department of Education, in collaboration with ICT units and educational technology developers, should ensure that these features directly respond to the identified challenges of teachers, thereby bridging the gap between policy expectations and classroom realities.Finally, continuous capacity building for teachers and strengthening of institutional support systems are essential to sustain the effectiveness of both curriculum implementation and LMS integration. Professional development programs focusing on digital pedagogy, instructional technology integration, and LMS utilization should be prioritized, especially for early-career teachers. At the policy level, the institutionalization of LMS adoption within the K to 12 framework is recommended to standardize instructional delivery and enhance monitoring systems across schools. Future research is encouraged to further examine

student learning outcomes, conduct longitudinal studies on LMS effectiveness, and explore comparative analyses across regions to refine and strengthen technology-driven instructional models in education.

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