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Probing the Links of LRMDS Implementation, Teacher Effectiveness, and Academic Gains in SOX Public Schools

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ABSTRACT

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This study assessed the interplay of carrying out the Department of Education's Learning Resources Management and Development System (LRMDS) on teacher effectiveness and student academic gains in public junior high schools across the SOX Region. Anchored in Constructivist Learning Theory and the Theory of Planned Behavior, the study employed a descriptive-correlational research design, using structured surveys to collect data from teachers across the eight school divisions. A total of 307 teachers were randomly selected from 32 schools, representing four categories of schools in each division. Descriptive and inferential statistics were used to analyze the data. Results showed a high level of LRMDS implementation, primarily

in the areas of accessibility, acceptability, and feedback mechanisms. Teachers exhibited a high degree of instructional effectiveness, characterized by the use of diverse pedagogical strategies and the design of dynamic learning environments. Students' academic gain was consistently rated as very satisfactory across core subjects. Statistical analyses suggested a significant correlation between the level of LRMDS implementation and teacher effectiveness. Nonetheless, a significant but negative relationship was noted between LRMDS implementation and students' academic gain. The study stresses the importance of enabling feedback mechanisms and increasing internet access to further boost the LRMDS's role in promoting effective pedagogy and improved quality of outcomes in basic education.

INTRODUCTION

Learning resources are universally accepted as a crucial lever for school quality: when teachers have timely access to well-designed materials, instructional time is used more effectively, classroom practice becomes more rational, and learners' outcomes increase (Greenwald et al., 1996). Across the world, therefore, ministries of education are spending in large-scale digital repositories that curate, quality-assure, and dispense open educational resources. The OECD's most recent Digital Education Outlook states that thirty-plus territories now consider central resource portals as "critical infrastructure" for equity and excellence, next only to teacher professional development (OECD, 2023).

High-performing systems explain the point. Finland introduces digital-literacy features and vetted e-resources in its national core curriculum; regular reviews prove strong associations between resource availability and student attainment (Balinggan, 2023). Canada, likewise, has woven provincial learning-object repositories into a coherent national OER strategy, allowing teachers to rehash content and track usage analytics (Marín et al., 2020). Relative studies indicate that such infrastructures narrow rural-urban gaps and strengthen teacher effectiveness when paired with sustained professional-learning supports (Stewart, 2012).

In Asia, governments are promoting similar reforms. Singapore's Student Learning Space, Japan's National Center for School Facilities Resources, and South Korea's K-Open Service collectively serve more than 15 million students each day (Keskin et al., 2018). In the ASEAN bloc, however, access and utilization remain uneven. Regional reviews highlight bandwidth constraints, variable curation standards, and limited data on how repositories translate into classroom change (ADB, 2022).

In the Philippines, the Department of Education responded by institutionalizing the Learning Resources Management and Development System (LRMDS) through DO 76 s. 2011. The LRMDS essentially intends to work as a one-stop center for vetted print, digital, and professional-development resources that teachers can fine-tune to local languages and contexts (DepEd, 2009). Early evaluations are promising: a national inventory found that 85 percent of uploaded materials meet quality benchmarks (Plata et al., 2024), while classroom trials account significant gains in subject mastery when lessons draw on LRMDS videos and interactive modules (Enguito & Calipayan, 2025). Nonetheless, a careful review of system content discloses emerging limitations. In his study of Earth and Life Science materials, Nagal (2020) states that LRMDS lacks subject-specific learning resources. This oversight reminds that while the platform's architecture is broad and sound, content development may fall short curricular needs, particularly for specific or newly integrated subjects. This view supports the broader claim that national-level digital platforms must address not only general instructional needs but also localized content gaps that directly affect teaching and learning outcomes. Nonetheless, evidence is still fragmented. Most Philippine studies deals with single districts or on teachers' self-reported satisfaction (Galla & Ubayubay, 2024); few relate LRMDS uptake to objective indicators such as Classroom Observation Tool (COT) ratings or Grade-Point Averages. Research outside Metro Manila is expressly limited, an important oversight triggered by persistent resource inequalities between metropolitan centers and less-urbanized regions (Villanueva & Deloy, 2022). SOCCSKSARGEN (SOX) illustrates these challenges: schools go across remote barangays and highly urban areas, and anecdotal reports entail wide variation in portal access, content localization, and training prospects.

Dealing with this gap, the present study examines whether, and to what extent, LRMDS implementation determines measurable changes in teacher effectiveness and student academic gain in SOX schools divisions. By triangulating portal-analytics data with COT ratings and school-level GPA records, the study provides strong evidence on the catalytic capability of the system and creates context-specific propositions for scaling reasonable resource provision nationally.

FRAMEWORK

The study employs an integrated research framework that combines both conceptual and theoretical perspectives to explore the influence of the Department of Education's Learning Resources Management and Development System (LRMDS) on teacher effectiveness and student academic gain.

The theoretical framework draws on four major theories to support and explain the relationships among these variables. First, the Technology Acceptance Model (TAM) by Davis (1989) explains how perceived usefulness and ease of use drive the acceptability of LRMDS among educators and learners. This acceptance influences the likelihood of its integration into teaching and learning routines. Second, Bandura's Social Cognitive Theory (1986) is employed to understand how LRMDS, as an environmental factor, boosts teachers' self-efficacy and instructional behavior through access to and application of digital resources.

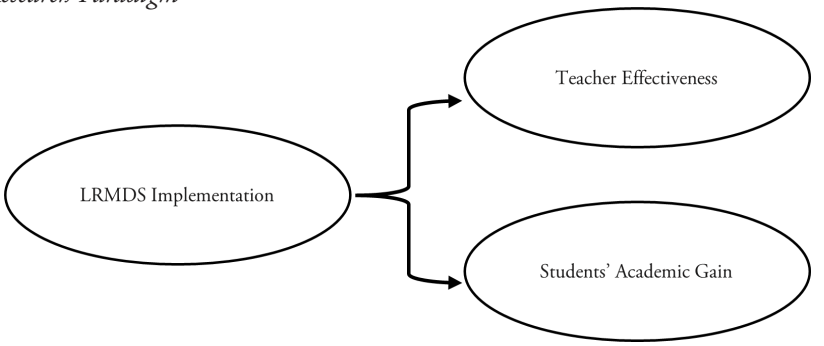
Third, the Constructivist Learning Theory, grounded in the work of Vygotsky and Bruner, supports the idea that LRMDS fosters differentiated, inquiry-based, and student-centered learning environments. This theory emphasizes how students make meaning through engagement with diverse, high-quality materials, an aspect central to the system's design. Finally, Walberg's Theory of Academic Achievement frames LRMDS as a contributor to the learning environment, suggesting that instructional quality and resource availability are crucial predictors of student academic performance.

Recent literature further reinforces the framework, with studies indicating that stable, well-managed digital resource systems significantly correlate with improvements in learner engagement and school outcomes (Brieflands, 2024; JDSS, 2024).

By integrating conceptual and theoretical elements, this framework guides the formulation of research questions, informs the design of measurement tools, and supports the analysis and interpretation of data. Through this comprehensive approach, the study not only examines the extent to which LRMDS contributes to teacher and student outcomes but also explores the underlying mechanisms and contextual factors that shape its educational impact.

The paradigm in Figure 1 operationalizes the key variables: the dependent variables include teacher effectiveness and students' academic gain; and the independent variables are the acceptability, accessibility, and utilization of LRMDS. The study presumes that LRMDS implementation influences the teaching effectiveness and students' academic gain.

Figure 1
Research Paradigm



OBJECTIVES OF THE STUDY

Primarily, this study aims to evaluate the implementation of the Department of Education's Learning Resources Management and Development System (LRMDS) in the SOX Region, as well as probe its links to teacher effectiveness and students' academic gains. Specifically, it seeks to: (1) assess the implementation of the LRMDS in terms of acceptability, accessibility, and utilization; (2) describe the levels of teacher effectiveness and students' academic gains in public schools within the SOX Region; (3) determine the relationship between the implementation of LRMDS and teacher effectiveness; and (4) examine the relationship between the implementation of LRMDS and students' academic gains.

The relationships among the variables were analyzed based on the assumed theories outlined in the conceptual framework of the study, postulating that effective LRMDS implementation is associated with enriched teacher effectiveness and improved academic outcomes among students.

METHODOLOGY

Research Design

A quantitative approach, descriptive-correlational design was adopted to (a) summarize the implementation of DepEd Learning Resources Management and Development System (LRMDS), teacher effectiveness, and student academic gain, and (b) test the relationships among these variables without inferring causation.

Research Site

Fieldwork covered the eight schools divisions of SOX, namely: General Santos, Kidapawan, Koronadal, Tacurong, Cotabato, Sultan Kudarat, Sarangani, and South Cotabato. The region's mix of highly urbanized and predominantly rural divisions provides a balanced context for analyzing LRMDS implementation across diverse school environments.

Participants

Thirty-two public junior-high schools that is, one small, medium, large, and mega campus in every school division — were purposively selected in line with DepEd's school-size categories. From these schools, 307 teachers were drawn through stratified random sampling proportional to each division's teaching force. Eligibility required at least one year of service and direct use of LRMDS materials, ensuring informed responses.

Instrumentation

A five-point Likert questionnaire that measures the implementation of LRMDS dimension of acceptability in terms of quality content, internet connectivity, and feedback, was developed. Items were constructed from DepEd guidelines and relevant literature, validated by six experts (regional and division supervisors, and school administrators), and pilot-tested with 30 non-participant teachers. Content validity indices of all items were 0.83 and above, indicative that the entire instrument is valid (Yusoff, 2019). Also, the computed Cronbach's alpha of 0.80 showed good internal consistency. In contrast, secondary data were considered for the system's accessibility and utilization, together with teacher effectiveness.

The instrument was administered in person during school hours, with researchers present to clarify queries and ensure complete returns. Concurrently, objective indicators were retrieved from official records: Classroom Observation Tool ratings for teacher effectiveness and class grade-point averages for School Year 2023-2024 to represent student performance. Data on LRMDS accessibility and utilization were collated through the Region XII LR Portal Situational Report.

Data Collection

The researcher obtained formal clearance from the DepEd Regional Office XII before approaching divisions and schools. At each site, the study purpose was explained and an informed-consent form distributed; participation

was voluntary and anonymity guaranteed under the Philippine Data Privacy Act (RA 10173). Questionnaires were completed during school hours with the researcher on-hand to clarify items, after which official records were accessed—COT ratings through the school guidance coordinator and GPA lists from subject teachers. All files were coded and stored in password-protected folders accessible only to the researcher.

Statistical Techniques

Descriptive statistics such as mean and standard deviation, summarized LRMDS implementation, teacher effectiveness, and student academic gains. Additionally, Pearson correlation (r) tested the strength and significance of relationships among variables at the 0.05 alpha level.

RESULTS AND DISCUSSION

This section deals on the extent of implementation of DepEd's Learning Resources Management and Development System (LRMDS) in SOX Region. In particular, Table 1 presents the general perception of teachers regarding the implementation of the DepEd's Learning Resources Management and Development System (LRMDS) along with acceptability. Basically, this factor pertains to the system's appropriateness with regard to quality content, internet connectivity, and feedback dimensions.

Table 1

Extent of Implementation of the DepEd LRMDS in terms of Acceptability

Dimensions	Means	SD
Quality Content	4.06	0.79
Internet Connectivity	4.12	0.83
Feedback	3.93	0.88
Overall Mean	4.03	0.83

Legend: 4.20-5.00 (Very High)
3.40-4.19 (High)
2.60-3.39 (Moderate)
1.80-2.59 (Less)
1.00-1.79 (Least)

As shown, the acceptability of the system is high (M=4.03, SD=0.83). This is indicative that teachers recognized the content and connectivity provisions of LRMDS as both relevant and responsive, while feedbacks were favorable or

directed to addressing the needs of the schools.

Among the dimensions evaluated, internet connectivity displayed the highest mean (M = 4.12, SD = 0.83), signifying that users find the platform satisfactory and that connectivity, while often cited as a limitation in Philippine schools, may have seen notable improvements or is being adequately supported through alternatives such as offline access, mobile apps, or district-level interventions (Ahillon Jr. & Aquino, 2024). The positive perception of connectivity aligns with findings from Roa et al. (2023), who emphasized the importance of infrastructure in leveraging any digital learning system, especially those based on the Technology Acceptance Model (TAM), where perceived ease of use and perceived usefulness drive adoption.

In terms of quality content, the mean score of 4.06 also indicates an encouraging evaluation. This reflects teachers' confidence in the applicability, accuracy, and alignment of the materials with curriculum standards. The study by Santos (n.d.) highlights the role of local divisions in ensuring quality assurance of LRMDS materials, which may explain the relatively high rating. Similarly, the assessment conducted by Galla and Ubayubay (2024) in the Talakag District confirms that users appreciate the LRMDS's capacity to offer updated and curriculum-aligned resources that support lesson delivery, enhance learner engagement, and save preparation time.

Feedback, while still rated high (M = 3.93, SD = 0.88), received the lowest among the three dimensions. This could suggest room for improvement in the mechanisms that allow users to comment on or evaluate the usefulness of specific learning resources. As Arisgado (2022) reported in his study on the extent of LRMDS implementation in Cavite, many teachers expressed a desire for more interactive and real-time feedback options to ensure continuous improvement of digital content. Likewise, Abogadie-Torbila (2021) emphasized that teacher factors like digital literacy, access to professional development, and the presence of feedback loops can significantly influence LRMDS utilization and perceived value.

Overall, the high level of acceptability observed in this study supports the idea that the LRMDS is a workable and sustainable tool for resource management and educational equity in Philippine basic education. However, the slightly lower score in feedback mechanisms suggests a need to strengthen user engagement and participatory evaluation to fully capitalize on the platform's potential.

Table 2

Extent of Implementation of the DepEd LRMDS in terms of Accessibility

Schools Division	Percentage
Cotabato	96.63
General Santos City	97.39
Kidapawan City	98.01
Koronadal City	98.81
Sarangani	89.46
South Cotabato	97.01
Sultan Kudarat	98.89
Tacurong City	93.90
Mean	96.26

Legend: 81 %-100% (Very High)
61%-80 % (High)
41%-60% (Moderate)
21%-40% (Less)
0-20 % (Least)

The data in Table 2 proves that the implementation of DepEd Learning Resource Management and Development System (LRMDS) in terms of accessibility in the SOX region is perceived as "very high" (96.26%). In the context of the school's LRMDS, accessibility refers to the participation rate determined by dividing the number of registered teachers on the LRMDS platform by the total number of teachers employed at the school. This finding denotes that a large majority of the teaching population were enrolled in the system for potential use of the digital instructional materials available in the LRMDS portal.

Apparently, the highest rating came from Sultan Kudarat (98.89%), closely followed by Koronadal City (98.81%) and Kidapawan City (98.01%), showing excellent access to the platform. Even the lowest score, Sarangani Division (89.46%), still falls within the category of "very high", which reinforces the system's broad reach and usability in geographically diverse areas, including those that may traditionally face challenges in internet infrastructure and digital literacy.

These results are congruent with the findings of Galla and Ubayubay (2024), who emphasized that one of the key strengths of the LRMDS is its design to ensure that teaching and learning resources are equitably distributed, especially to underserved and geographically isolated schools. Their study in the Talakag 1 District confirms that improved teacher access to quality resources contributes

positively to instruction, professional preparation, and learner outcomes.

Similarly, Arisgado (2022) noted that the availability of localized and digitized resources under the LRMDS significantly improved teachers' instructional delivery and reduced dependence on commercially produced modules, thereby enhancing both accessibility and contextual relevance. These localized practices are supported by division-level management systems, which ensure that the LRMDS is properly disseminated and updated (Santos, n.d.).

However, accessibility is not only a function of physical or digital reach but also of user readiness. As Abogadie-Torbila (2021) pointed out, the successful implementation of LRMDS is mediated by teacher-related factors such as competence in ICT, willingness to adopt new modalities, and the availability of capacity-building initiatives. It follows that the high accessibility ratings reflected in this table may be the result of combined efforts: improved infrastructure, strengthened digital literacy programs, and a responsive feedback loop between schools and divisions.

The study by Garcia et al. (2024) likewise concurs this, indicating that sustained accessibility relies on effective guidelines for learning resource utilization and the presence of competent LRMDS coordinators and support personnel. The deployment of school-based learning resource centers and librarian-led resource hubs may also have contributed to this high accessibility rate, as previously emphasized by Navidad (2019).

Thus, the results in Table 2 reflect a significant breakthrough for the DepEd's LRMDS in SOX. The "very high" ratings across all divisions affirm that the platform is not merely operational but is functioning optimally to serve the demands of a decentralized and evolving educational landscape. Nevertheless, continuous support through infrastructure enhancement, training, and quality assurance mechanisms remains vital to sustain and further improve this level of implementation.

On the other hand, Table 3 illustrates the implementation of the LRMDS in terms of teachers' utilization. The utilization rate was practically derived by dividing the number of teachers who have utilized and downloaded resources from the LRMDS by the total number of registered teachers in the portal.

Table 3

Extent of Implementation of the DepEd's LRMDS in terms of Utilization

Schools Division	Percentage
Cotabato Division	67.95
General Santos City Division	89.05
Kidapawan City Division	97.72
Koronadal City Division	95.65
Sarangani Division	82.33
South Cotabato Division	70.01
Sultan Kudarat Division	59.83
Tacurong City Division	97.65
Mean	82.52

Legend: 81 %-100% (Very High)
61%-80 % (High)
41%-60% (Moderate)
21%-40% (Less)
0-20 % (Least)

The findings exhibit that the mean utilization rate of the learning resources system is very high (82.52%). This means that, on average, teachers across these divisions frequently browsed, read, and downloaded teaching and learning materials from the LRMDS which implies a strong integration of the system into the school's instructional practices.

Kidapawan City Division registered the highest utilization rate at 97.72%, followed tightly by Tacurong City Division (97.65%) and Koronadal City Division (95.65%), indicating that teachers in these areas may have higher digital literacy, access to ICT facilities, or institutional support, which are critical enablers for maximum LRMDS use. In contrast, Sultan Kudarat Division recorded the lowest utilization rate at moderate level (59.83%). This hints the existence of potential barriers in this division such as inadequate infrastructure, lack of training, or poor awareness of LRMDS functions.

These findings are supported by Abogadie-Torbila (2021), who emphasized that the effectiveness of LRMDS implementation is significantly influenced by teacher-related factors such as ICT competence, motivation, and availability of technical support. Likewise, Arisgado (2022) noted that teachers' engagement with the LRMDS, primarily downloading and integrating resources into lesson delivery, is key to its successful implementation.

Galla and Ubayubay (2024) also emphasized that utilization is significantly

affected by teachers' perceptions and attitudes toward the relevance and ease of access to digital resources, underlining the need for sustained capacity-building initiatives. Furthermore, Navidad (2019) stressed the role of continuous in-service training for teachers to enhance their competence in managing and utilizing LRMDS materials effectively.

In a broader systems perspective, Santos (n.d.) argued that division-level management practices, including the establishment of quality assurance protocols, significantly determine the functionality and effectiveness of LRMDS implementation. This strengthens the perceived variation in utilization rates among the divisions studied. The significance of monitoring, support, and local contextualization of materials, as identified by Garcia et al. (2024), also supports the need for established guidelines fitted to each division's unique contexts. Thus, while the data reveal a strong level of LRMDS utilization in the SOX Region, the disparities among divisions indicate a need for targeted interventions like localized technical support, structured user training, and consistent monitoring to ensure equitable and sustained use of LRMDS resources.

Generally, the findings indicate that the implementation of DepEd's LRMDS in the SOX Region is strong across the dimensions of acceptability, accessibility, and utilization. The high acceptability ratings confirm that teachers see the LRMDS as relevant and responsive, specifically in terms of internet connectivity and content quality. Conversely, feedback mechanisms, while still positively rated, seem to require improvement for more participatory and helpful content development. Accessibility was evaluated very high in all schools divisions, indicative of extensive registration and potential use, even in geographically isolated areas. This result could be attributed to enhanced infrastructure, division-level coordination, and localized support systems. Utilization outcomes also displayed a laudable average, but the variance among divisions particularly the moderate mark in Sultan Kudarat signifies gaps possibly rooted in digital readiness, infrastructure imbalances, or training essentials. These outcomes assert LRMDS's promise as means for equitable resource delivery in education but also direct to the need of constant support, capacity-building, and context-specific approaches to endure and enhance its implementation across all divisions.

The next table presents the teachers' effectiveness in SOX region. This factor refers to the ability of teacher to positively impact student learning and growth as influenced by their utilization of LRMDS resources. Assessment of this teacher's attribute was made through the DepEd standardized classroom observation tool (COT).

Table 4

Level of Teachers' Effectiveness in SOX Region

	Indicators	Mean	SD
1.	Applied knowledge of content within and across curriculum teaching areas.	4.87	0.38
2.	Used a range of teaching strategies that enhance learner achievement in literacy and numeracy skills.	4.84	0.41
3.	Applied a range of teaching strategies to develop critical and creative thinking, as well as other higher-order thinking skills.	4.78	0.45
4.	Displayed proficient use of Mother Tongue, Filipino, and English to facilitate teaching and learning.	4.82	0.41
5.	Established safe and secure learning environments to enhance learning through the consistent implementation of policies, guidelines, and procedures.	4.84	0.41
6.	Maintained learning environments that promote fairness, respect, and care to encourage learning.	4.84	0.41
7.	Established a learner-centered culture by using teaching strategies that respond to their linguistic, cultural, socio-economic, and religious backgrounds.		
8.	Adapted and used culturally appropriate teaching strategies to address the needs of learners from indigenous groups.	4.85	0.42
9.	Used strategies for providing timely, accurate, and constructive feedback to improve learner performance.	4.78	0.46
	Overall Mean	4.83	0.42

Legend: 1.00-1.79 (Very Low)
1.80-2.59 (Low)
2.60-3.39 (Moderate)
3.40-4.19 (High)
4.20-5.00 (Very High)

As revealed, the teachers exhibit a very high level of teaching effectiveness (M = 4.83, SD = 0.42). This remarkably high rating, stable across all indicators, points out the educators' concrete instructional competence, profound content mastery, skilled classroom management, and responsiveness to the diverse demands of learners. Such performance means that teachers are not simply meeting but consistently exceeding the professional standards expected of them, thus manifesting a high level of professional practices.

The highest mean score was noted in the indicator "Applied knowledge of

content within and across curriculum teaching areas" (M = 4.87, SD = 0.38), which shows teachers' mastery and their capacity to integrate knowledge across subjects. This validates the assertion of Abulon (2014), who stressed that effective teaching is basically rooted in teachers' notable conceptual understanding of their subject matter. In addition, the high rating in the use of diverse teaching strategies that enhance literacy and numeracy (M = 4.84, SD = 0.41) substantiates the conclusion of Atilano-Tang and Cirilo (2023), who claim that a collection of varied instructional strategies is imperative for developing basic skills among learners.

Moreover, teachers' practice of applying strategies that promote critical and creative thinking, together with their capable use of the Mother Tongue, Filipino, and English, indicates their linguistic prowess and ability to inspire higher-order thinking skills. This aligns with Zalun's (2023) study, which asserts that multilingual proficiency is an instructional strength that boosts cognitive engagement and magnifies understanding among learners.

The very high ratings in establishing secure, inclusive, and learner-centered environments (M = 4.84 across related indicators) also feature the deliberate nurturing of the affective and social dimensions of learning. These findings are indicative of the Department of Education's (2024) emphasis on creating safe, respectful, and responsive classrooms. In particular, the adaptation of culturally appropriate strategies for indigenous learners (M = 4.85, SD = 0.42) supports the role of culturally sustaining pedagogies in advancing equity and inclusion. Juban and Perlado (2020) cite that such pedagogical styles are necessary for making sure that marginalized learners, including those from indigenous communities, are implicitly engaged in the learning process.

The enduring application of formative assessment practices through timely and constructive feedback, and the cross-curricular integration of content also show the existence of thoughtful, data-informed instruction. These practices are vital principles of quality teaching, as expressed by Garcia et al. (2024), who dispute that effective assessment and interdisciplinary instruction are critical to promoting learner growth.

Notably, these findings are interpreted in light of the broader systemic support provided through the Learning Resource Management and Development System (LRMDS). According to Navidad (2019), the availability and proper management of instructional resources significantly enrich teaching performance. The consistently high effectiveness ratings observed among teachers in this study may be ascribed partly to their strategic utilization of the LRMDS. The platform's provision of localized, culture-sensitive, and pedagogically suitable resources facilitates teachers to proficiently prepare lessons, employ differentiated

instruction, and adapt to varied learner contexts.

Villanueva et al. (2022) further argue that access to organized instructional materials through systems like LRMDS alleviates the pressures of daily planning, thereby allowing teachers to concentrate on refining their teaching strategies and student engagement. Similarly, the findings of Ebio and Deri (2024) emphasize that the thoughtful integration of both digital and print-based LRMDS materials supports teacher motivation, instructional coherence, and learner outcomes.

These inferences conform to the EDCOM II Report (2023), citing that improving access to high-quality learning resources is key in enhancing both teacher effectiveness and learner achievement within the Philippine education system. In the case of the SOX Region, it is practical to deduce that teachers' optimum use of the LRMDS through resource localization, curriculum design, and pedagogical upgrading, may considerably helped to their shown effectiveness in various domains of teaching practice.

Accordingly, the data not merely reveal strong pedagogical practices but also suggest the influential role of the LRMDS as a catalyst for extended teaching excellence. This interaction between resource utilization and professional practice proves that complete support structures are critical in enabling teachers to provide quality education, particularly in regions with varied learner populations.

Consequently, Table 5 presents the level of students' academic gains across core subjects. Academic gains of students are expressed in terms of their general point average (GPA).

Table 5
Level of Students' Academic Gains in Core Subjects

Subjects	GPA
English	85.45
Mathematics	85.07
Science	86.17
Filipino	86.70
ESP	88.27
Araling Panlipunan	87.59
TLE	87.72
MAPEH	87.53
Mean	86.81

Legend: 90-100 (Outstanding)
85-89 (Very Satisfactory)
80-84 (Satisfactory)
75-79 (Fairly Satisfactory)
Below 75 (Did Not Meet Expectations)

As indicated, the students attained a mean GPA of 86.81, verbally described as "very satisfactory." Other subjects, including English (85.45), Mathematics (85.07), Science (86.17), Filipino (86.70), Edukasyon sa Pagpapakatao (ESP) (88.27), Araling Panlipunan (87.59), Technology and Livelihood Education (TLE) (87.72), and Music, Arts, PE, and Health (MAPEH) (87.53), also obtained ratings within the very satisfactory range.

The overall academic gain, while commendable, implies a significant margin for further excellence. Consistent with the DepEd Order No. 007, s.2024, which emphasizes strengthening organizational health and learning outcomes, students' performance positively reflects the ongoing efforts to professionalize teaching and enhance school performance systems (Department of Education [DepEd], 2024).

Theoretical standpoints and empirical findings more deepen the interpretation of these results. According to the Adoption of the Basic Education Research Agenda (DepEd, 2016), academic performance is strongly linked to systemic inputs such as teacher quality, curriculum relevance, and availability of learning resources. The homogeneity of the very satisfactory ratings indicates that the school environment, including both human and material resources, effectively supports balanced academic development.

This account is corroborated by Trinidad (2020), whose analysis of PISA

2018 data exposed that material resources and school climate are significant predictors of student achievement, varying depending on school types and locations. The largely high GPAs observed in this study may subsequently imply effective exploitation of material resources and a positive school climate.

Moreover, Ondong (2024) pointed out the critical role of proper learning resource utilization in promoting academic achievement, which likely contributed to the students' performance. Similarly, Garcia et al. (2024) found that systematic planning and utilization of learning resources were instrumental in achieving desirable educational outcomes. Lasig and Collantes (2022) further confirmed that library services and access to instructional materials correlate positively with academic performance among teacher education students.

However, it is important to view these results critically. The State of Philippine Education Report (PBEd, 2023) reminds us that despite local pockets of success, systemic inequities persist across regions. Thus, sustaining and broadening improvements remain an urgent task.

On a related note, Eric and Ezeugo (2019) cited that inadequacies in physical and educational resources adversely affect students' academic achievement, signifying the meaning of sustained investment in resources. William et al. (2025) also found that schools with better infrastructure always record higher literacy and achievement rates, regardless of rural or urban.

Lastly, Tan et al. (1997) asserted the "input-process-output" model, showing that the expansion of educational inputs through teacher competency, resource utilization, and administrative support, often directs to better learning outcomes. The students' average GPA strongly signifies that such inputs are being effectively converted into educational gains.

Table 6

Correlational Analysis between the LRMDS Implementation and Teacher Effectiveness

LRMDS Implementation	Pearson r	Sig
Quality Content	0.094	0.000
Internet Connectivity	0.079	0.000
Feedback	0.100	0.000

Notes: p<.05, significant

Table 6 presents the correlational analysis between the extent of LRMDS implementation and teacher effectiveness. Results showed that Quality Content ($r = 0.094$, $p < .05$), Internet Connectivity ($r = 0.079$, $p < .05$), and Feedback (r

= 0.100, p < .05) each had a weak positive correlation with teacher effectiveness. Although the strength of the correlations was low, the significance level indicates that the implementation aspects of LRMDS are meaningfully associated with improvements in teacher effectiveness in public schools in the region.

The positive relationship between quality content and teacher effectiveness is consistent with Arisgado's (2022) findings, which pointed out that the availability and quality of learning materials directly impact teaching efficacy. Inadequate or poorly designed resources, like the absence of critical materials for Filipino and Araling Panlipunan, were observed to negatively influence instructional delivery. Thus, even a minor enhancement in the quality content of the LRMDS can trigger determinate improvements in teacher performance.

Similarly, the positive correlation between internet connectivity and teacher efficacy validates the observations of Galla and Ubayubay (2024), who establish that access to online LRMDS platforms enables the timely attainment of updated learning materials, that contributes to more efficient and effective teaching practices. Despite weaknesses in infrastructure, any upgrading in connectivity affords teachers with better opportunities to access varied resources and instructional tools.

The weak although significant relationship between feedback and teacher effectiveness reflects the findings of Abogadie-Torbila (2021). He asserted that feedback mechanisms within LRMDS, while poorly utilized, are critical for continuous professional development. Teachers who actively engage with feedback systems are better able to support their instructional strategies with contemporary standards and student needs, thereby improving effectiveness.

Besides, these findings confirm the claims of Navidad (2019) that the full operation and effective management of learning resources, together with technological integration, are imperative for developing teacher competence. Likewise, Bencito (2024) stressed that the utilization of LRMDS portals helps teacher assessment and promotion processes, signifying that more strong engagement with the system stimulates better professional outcomes for teachers.

Generally, the results uphold the theoretical assumption lodged in the paradigm of the study: the implementation of LRMDS is positively associated with teacher effectiveness. Although the relationships are obviously weak, yet the significance points out the potential growing influence of bolstering LRMDS components particularly quality content condition, improving internet infrastructure, and embedding consistent feedback, to optimize teacher performance.

Thus, future plans must concentrate on improving the quality, accessibility, and interactive components of LRMDS to maximize its effect on teaching

outcomes, as hinted by Garcia et al. (2024), who encouraged for systematic reviews and the preemptive management of learning resources to guarantee effectiveness.

Table 7

Correlational Analysis between the LRMDS Implementation and Academic Gain

Variables	Pearson r	Sig
LRMDS Implementation and Students' Academic Gain	-.0440	.000

Notes: p<.05, significant

Table 7 presents the correlational analysis between the extent of Learning Resources Management and Development System (LRMDS) implementation and students' academic achievement. The results show a Pearson's r of –0.0440 (p = .000) indicating a weak negative correlation between the two variables. Since the p-value is less than 0.05, the correlation is statistically significant.

While the strength of the correlation is weak, the negative direction suggests that higher levels of LRMDS implementation are associated with slightly lower academic performance among students. Although counterintuitive, such a result can be explained through several scholarly findings.

According to Ebio and Deri (2024), while the availability of learning resources is important for facilitating learning, their mere presence without strategic integration into instruction does not guarantee improved outcomes. Teachers must be adequately trained to utilize these resources effectively; otherwise, the materials become underutilized or even a source of confusion for learners.

Similarly, Garcia et al. (2024) argue that while LRMDS and other learning resource systems expand access to materials, the absence of contextualization and the challenges teachers meet in incorporating these resources can weaken their effectiveness. This discloses that the quality, relevance, and instructional relevance of learning resources, not simply their availability, are decisive factors influencing student achievement.

Moreover, Sinco (2018) underscored that the introduction of strategic intervention materials (SIMs) must link closely with students' learning requirements. The unsuitable or involuntary use of such materials can lead to cognitive overload, thus negatively affecting performance. This reaffirms the principle suggested by Suarez and Casinillo (2020) that the impact of teaching resources is not characteristically positive or negative but depends on how deliberately and professorially they are executed.

Other support emanates from Cos et al. (2021), who recognized that while

DepEd's staging of modular learning resources amidst the pandemic helped sustain education, inconsistency in the quality of materials led to skewed academic performance across schools. In some instances, poorly developed or misaligned modules caused in confusion rather than understanding.

Moreover, Aquino (2024) inferred that the mere delivery of self-learning materials does not spontaneously improve academic performance unless accompanied by guided instruction and support. This further bolsters the idea that implementation quality and teaching strategies facilitate the effectiveness of learning resources.

Finally, the work of Rebulanan and Samala (2021) reasserts that students' academic performance is prejudiced not just by resource availability but also by instructional practices, school climate, and teacher competence. Thus, a weak negative correlation could mean systemic issues such as inadequate teacher training in using LRMDS, gaps in resource contextualization, and limited learner support.

The findings also proved the Technology Acceptance Model (TAM) framework, which proposes that perceived usefulness and ease of use are key factors in the successful adoption of educational technologies and systems (Davis, 1989). If teachers or students understand LRMDS as complex or unproductive, their academic gains may suffer despite improved access to resources.

CONCLUSION

The study verifies that the implementation of the Learning Resources Management and Development System (LRMDS) in the SOX Region is evidenced by high levels of acceptability, accessibility, and utilization among public school teachers. Remarkably, the LRMDS was perceived as highly acceptable in terms of content quality and internet connectivity, though feedback were rated somewhat lower, indicative that participatory evaluation processes remain an area for improvement. This insight emphasizes a major concern not extensively underlined in existing literature, that is, the need for more effective integration of user feedback to fully achieve LRMDS's participatory goal.

Accessibility was proven to be very high, even in geographically isolated divisions, implying the achievement of the DepEd's infrastructure and digital literacy initiatives. Nonetheless, a seeming inconsistency was observed in utilization, with Sultan Kudarat Division recording only moderate engagement even with high accessibility. This distinction discloses a suggestive contribution of the study: access alone does not translate to effective usage, giving emphasis to digital and capacity-building needs.

Besides, the study demonstrates a positive association between LRMDS implementation and teacher effectiveness, which strengthens theoretical beliefs that resource availability helps pedagogical competence and, eventually, student academic outcomes. Teachers described high competence in content mastery, instructional strategies, and learner support which broadens the case for systems-based and resource-oriented educational theories in Philippine public education. The findings support the need for continuous outlay in feedback systems, teacher training, and localized efforts to enhance the long-term soundness and impact of LRMDS.

Even so, this study has limitations largely on methods. While it is true that the use of a quantitative approach, and descriptive-correlational design is appropriate for drawing patterns and relationships, it does not allow causal inferences. Moreover, self-reported data often results to overstating favorable behaviors, despite efforts to ensure anonymity. The purposive selection of schools, although guided by DepEd categorizations, could also restrict generalizability beyond the selected divisions. Future research may regard mixed methods or longitudinal designs to present deeper, more detailed insights into the long-term effects of LRMDS integration.

Overall, this study validates prior assumptions about LRMDS's relevance and upholds its role in supporting educational quality. At the same time, it breeds new theoretical and practical concerns on the links between accessibility, utilization, and pedagogical effectiveness putting the basis for more supportive and inclusive resource systems.

TRANSLATIONAL RESEARCH

The results of this study have been transformed into a responsive and concrete policy titled "Strengthening User Feedback Integration, Capacity-Building, and Contextual Utilization for Optimal Implementation of the Learning Resources Management and Development System (LRMDS)." This policy works as a direct application of the findings into actionable educational governance, intended to be easily understood by school administrators, teachers, and DepEd implementers. To make the scientific insights more available and attractive to a broader audience, the policy can be promoted through a variety of innovative media. Brochures and posters digesting the importance of active user feedback, localized capacity-building, and fixing access-utilization gaps can be circulated through schools and division offices. Storytelling assemblies and short drama skits may be employed during learning action cell (LAC) sessions, or in-service training, showing setups where better feedback and teacher empowerment lead to more helpful

use of LRMDS. Additionally, illustrative booklets showcasing best practices on exploiting LRMDS resources, as well as simple infographic videos shared among school Facebook pages and DepEd online platforms, can successfully bring the policy to the frontline educators. Radio plays aired through local stations could stage the real application of LRMDS feedback systems, extending even to geographically isolated schools. These translation strategies warrant that the research findings are not limited within academic circles but are transformed into dynamic, relevant, and practical tools that allow stakeholders to fully achieve the LRMDS's potential in enriching teaching and learning outcomes.

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