

Implementation of Sports Development Program and Learners' Engagement in Public Elementary Schools in District III, Division of Quezon City : Basis for A Contextualized School-Based Engagement Program

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Abstract

This study assessed the implementation of sports development programs and the level of learner engagement in public elementary schools in District III, Division of Quezon City, as a basis for developing an intervention program. Using a quantitative descriptive-correlational research design, data were gathered from 287 respondents consisting of supervisors, school heads, and teachers through validated survey questionnaires. Findings revealed that the sports development program was implemented to a "Highly Evident" level across all dimensions (overall WM=4.62), with Curriculum Integration and Coaching Competency ranked highest (WM=4.79), followed by Administrative and Community Support (WM=4.67), and Resource Allocation and Facilities (WM=4.40). Learners' engagement was also assessed as "Highly Engaged" (overall WM=4.64), with Behavioral Engagement ranking highest (WM=4.75), followed by Emotional Engagement (WM=4.68), and Cognitive Engagement (WM=4.48). Regression analysis revealed no significant relationship between sports program implementation and learner engagement dimensions, with all p-values exceeding 0.05. Challenges encountered were rated as "Least Encountered" (overall WM=2.35). A proposed intervention program was developed and rated "Highly Acceptable" (WM=4.43). The study concludes that while sports programs are effectively implemented, their influence on learner engagement remains limited, suggesting the need for more integrated approaches. A contextualized school-based engagement program was proposed to strengthen the connection between sports development and learner participation.

Keywords: *sports development program, learner engagement, public elementary schools, Quezon City, behavioral engagement, emotional engagement, cognitive engagement, resource allocation, coaching competency, intervention program*

CHAPTER 1

The Problem and Its Background

Introduction

Sports development and learner engagement are major concerns in basic education due to declining physical activity and increasing learner disengagement among school-aged children. Sedentary lifestyles negatively affect learners' physical health, academic motivation, and psychological development, making school-based sports programs essential for holistic development and active participation (Kesselring, 2020; Gilbin, 2016; Kukodo, 2022).

The importance of sports development is supported by national policies, particularly the 1987 Philippine Constitution and programs of the Department of Education, including DepEd Memorandum No. 70, s. 2021, which promotes physical education and organized sports to enhance learners' fitness, discipline, and social development. Despite these policy directives, gaps remain between policy intentions and actual school implementation, resulting in inconsistent learner participation and engagement.

Sports development programs are structured initiatives that involve resource allocation and facilities, curriculum integration, coaching competency, and administrative and community support (Cipriano et al., 2024). Learner engagement, meanwhile, consists of behavioral (attendance and participation), emotional (interest and belonging), and cognitive (strategic thinking and goal setting) dimensions (Kukoda, 2022). While previous studies have examined sports programs or learner outcomes separately, few studies integrate program implementation variables, learner engagement dimensions, stakeholder assessments, and implementation challenges, particularly at the elementary level.

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To address this gap, the study examines the level of implementation of sports development programs and the level of learner engagement in public elementary schools in District III, Division of Quezon City. It assesses program implementation in terms of resource allocation and facilities, curriculum integration and coaching competency, and administrative and community support, as evaluated by supervisors, school heads, and teachers. It also determines learners' engagement in behavioral, emotional, and cognitive dimensions. Guided by the quantitative descriptive – correlational design of John W. Creswell and J. David Creswell, the study aims to provide evidence for developing an intervention program to strengthen sports development and improve learner engagement in public elementary schools.

Theoretical Framework

The study is anchored on Student Engagement Theory by Astin (1984), which explains that learners' active involvement in school activities through behavioral, emotional, and cognitive participation leads to improved learning outcomes and development (Archambault et al., 2022). In sports education, engagement is reflected in learners' participation, interest, sense of belonging, and goal setting (Kukoda, 2022). This theory is appropriate for the study because it

explains the dependent variable, learner engagement, measured through behavioral, emotional, and cognitive dimensions. It supports the assumption that well-implemented sports programs increase learners' participation and motivation.

Moreover, this study is anchored to Social Cognitive Theory, which emphasizes that behavior is influenced by personal factors, environmental conditions, and observational learning. It highlights the importance of self-efficacy, supportive environments, and role modeling in shaping motivation and performance. In this context, sports development programs with adequate facilities, competent coaching, and supportive leadership enhance learners' confidence, persistence, and strategic thinking (Dinque, 2018; Sorongo, 2020). Therefore, this theory is relevant because it explains how environmental and instructional factors influence learners' engagement in sports activities.

Additionally, this study is anchored to the System Theory, which views schools as interconnected systems where inputs, processes, and outputs interact to produce outcomes. In sports development programs, inputs such as resource allocation, curriculum integration, and administrative and community support affect implementation processes and learner engagement outcomes (Castillo et al., 2020). Consequently, this theory supports the study's independent variables by emphasizing that effective program implementation depends on coordinated institutional support.

Furthermore, the study is supported by the 1987 Philippine Constitution, which mandates the promotion of physical education and sports to foster discipline, teamwork, and holistic development among learners, and policies of the Department of Education, such as DepEd Memorandum No. 70, s. 2021, which emphasizes school sports as essential to learner

development. Hence, these policies justify the investigation by reinforcing the importance of effective sports program implementation in public schools.

Overall, the three theories explain that learner engagement in sports results from the interaction of learners' active participation, environmental influences, and organizational support systems. Taken together, they provide a comprehensive framework for examining how sports development program implementation influences learner engagement in public elementary schools.

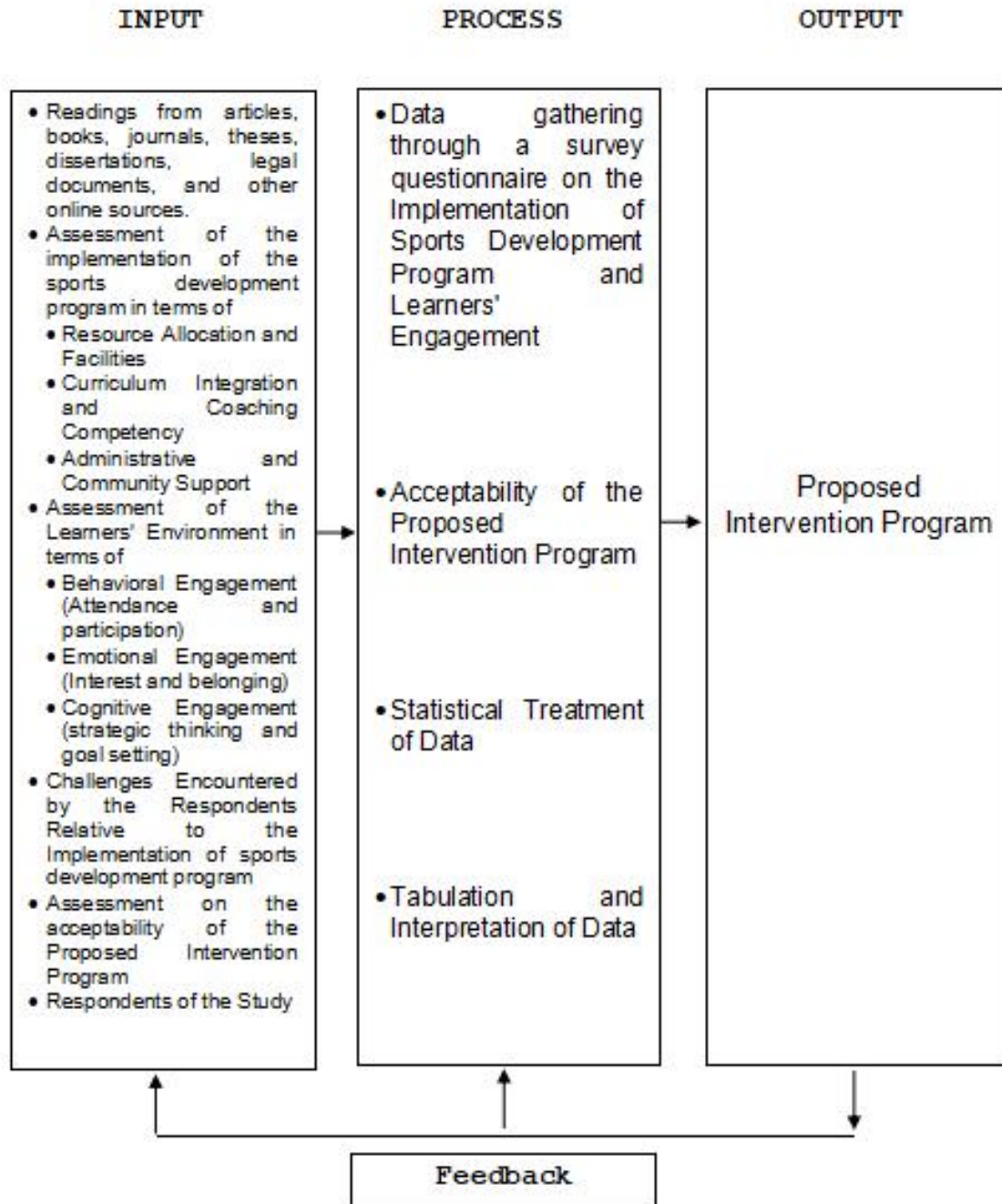
Conceptual Framework

The conceptual framework (see Figure 1) is guided by the Input–Process–Output (IPO) framework. The study conceptualizes sports development program implementation and its influence on learner engagement in public elementary schools in District III, Division of Quezon City.

The **Input** component includes the Readings from articles, books, journals, theses, dissertations, legal documents, and other online sources; Assessment of the implementation of the sports development program in terms of Resource Allocation and Facilities, Curriculum Integration and Coaching Competency, and Administrative and Community Support; Assessment of the Learners' Environment in terms of Behavioral Engagement (Attendance and participation), Emotional Engagement (Interest and belonging), and Cognitive Engagement (strategic thinking and goal setting); Challenges Encountered by the Respondents Relative to the Implementation of sports development program; Assessment on the acceptability of the Proposed Intervention Program, and the respondents of the Study.

Figure 1:

Research Paradigm of the Study



The **Process** component involves data gathering through survey instruments on the Implementation of the Sports Development Program and Learners' Engagement; Acceptability of the Proposed Intervention Program; Statistical Treatment of Data, and tabulation and Interpretation of Data.

The **Output** component consists of the identified levels of sports development program implementation, the measured level of learner engagement, the established relationship between the two variables, the documented implementation challenges, and the proposed Strategic Educational Intervention Framework designed to enhance sports program delivery and learner engagement.

Statement of the Problem

This study aims to determine the level of implementation of sports development programs and the level of learner engagement in public elementary schools in District III, Division of Quezon City, as a basis for the development of an intervention program.

1. How do the supervisors, school heads, and teachers assess the implementation of the sports development program in terms of:

- 1.1 Resource Allocation and Facilities;
- 1.2 Curriculum Integration and Coaching Competency; and
- 1.3 Administrative and Community Support?

2. Is there a significant difference in the assessments of the three groups of respondents on the above-mentioned variables?

3. What is the level of learners' engagement in terms of:

- 3.1 Behavioral Engagement (attendance and participation);
- 3.2 Emotional Engagement (interest and belonging); and

3.3 Cognitive Engagement (strategic thinking and goal setting)?

4. Is there a significant relationship between the implementation of sports development programs and learners' engagement?
5. What are the challenges encountered by the respondents relative to the implementation of the sports development program?
6. Based on the findings, what intervention program may be proposed?
7. How acceptable is the proposed intervention program?

Hypotheses

The study hypothesized that

1. There is no significant difference in the assessments of supervisors, school heads, and teachers regarding the implementation of the sports development program.
2. There is no significant relationship between the level of sports development program implementation and the level of learner engagement in public elementary schools.

Scope and Limitation of the Study

This study focused on the assessment of the implementation of sports development programs and learner engagement in selected public elementary schools in District III, Division of Quezon City. Specifically, it examined sports development program implementation in terms of resource allocation and facilities, curriculum integration and coaching competency, and administrative and community support. It also determined the level of learner engagement in terms of behavioral engagement (attendance and participation), emotional engagement (interest and sense of belonging), and cognitive engagement (strategic thinking and goal setting). Furthermore, the study examined the significant differences in the assessments of supervisors, school heads, and teachers regarding the implementation of sports development programs and

analyzed the relationship between program implementation and learner engagement as a basis for developing an intervention program.

The study involved district supervisor/s, school heads, and teachers from selected public elementary schools who assessed the level of sports development program implementation, as well as elementary learners whose engagement levels were measured. These respondents were selected because of their direct involvement in the implementation and participation in school sports programs.

The study was conducted in selected public elementary schools in District III, Quezon City, which implement sports development initiatives as part of their educational programs to promote learners' physical development and school participation. These schools include 15th Avenue Elementary School – #139, 15th Avenue, Brgy. Socorro, Quezon City; Aguinaldo Elementary School – #54 18th Avenue, Brgy. San Roque, Quezon City; Bagumbayan Elementary School – 55 San Roque St., Brgy. Bagumbayan, Quezon City; Balara Elementary School – H. Ventura St., Balara Filters, Brgy. Pansol, Quezon City; Batino Elementary School (SPED Center) – Batino St., Barangay Amihan, Project 3, Quezon City; Camarilla Elementary School – 6th Camarilla St., Brgy. San Roque, Quezon City; Dona Josefa E. Marcos Elementary School – 41 18th Avenue, Quezon City; Eulogio Rodriguez, Sr. Elementary School – 160 Ermin Garcia St., Brgy. E. Rodriguez Sr., Quezon City; Fort Aguinaldo Elementary School – Road 3/6, Camp Aguinaldo, Quezon City; Kalantiyaw Elementary School – Malvar Street, Brgy. Bagumbuhay, Quezon City; Libis Elementary School – Col. Bonny Serrano Ave., Blue Ridge A, Libis, Quezon City; Old Balara Elementary School – Laura St., Brgy. Matandang Balara, Quezon City; Project 3 Elementary School – 128 Molave St., Brgy. Duyan-Duyan, Project 3, Quezon City; Pura V. Kalaw Elementary School – Salalilla Street, Brgy. Milagrosa, Project 4,

Quezon City; Quirino Elementary School – Anonas St., Brgy. Quirino 2-B, Quezon City, and Teodora Alonzo Elementary School – Legaspi St., Brgy. Marilag, Project 4, Quezon City.

The conduct of the study covered School Year 2025–2026, from proposal approval to final defense.

The study was limited to selected public elementary schools in District III; therefore, the findings may not be generalized to private schools, secondary-level institutions, or schools outside of the district. In addition, the study excluded direct measures of athletic performance and academic achievement and did not consider external influences such as home environment and extracurricular sports participation outside school, which may also affect learner engagement.

Significance of the Study

The findings of this study will be beneficial to the following DepEd stakeholders:

Learners will benefit from improved implementation of sports development programs that promote active participation, motivation, a sense of belonging, and cognitive involvement in sports-related activities, contributing to their holistic physical, emotional, and social development.

Teachers and coaches will gain empirical insights into effective curriculum integration, coaching competencies, and instructional practices that enhance learner engagement in school sports programs.

School heads may use the findings as a basis for strengthening school-level leadership, optimizing the use of facilities and resources, and enhancing collaboration with parents and community partners to support sports development initiatives.

District supervisors may utilize the results to monitor program implementation, identify system-level gaps, and guide technical assistance and support mechanisms for schools within their jurisdiction.

Future researchers may use this study as a reference for further investigations on sports development programs, learner engagement, and intervention framework development in basic education contexts.

Definition of Terms

Administrative and Community Support refers conceptually to leadership actions, policy enforcement, and stakeholder collaboration that sustain school programs (Cipriano et al., 2024). In the present study, it refers to the respondents' assessment of administrative leadership practices and community involvement supporting the sports development program.

Behavioral Engagement describes conceptually to observable participation, effort, and persistence in activities (Kukoda, 2022). In the present study, it refers to learners' attendance and active participation in school sports activities.

Cognitive Engagement refers to learners' investment in learning strategies, self-regulation, and goal-oriented behavior (Kukoda, 2022). In the present study, it refers to learners' reported goal-setting, planning, and strategic thinking during sports participation.

Curriculum Integration and Coaching Competency refers conceptually to the alignment of sports activities with curricular goals and the instructional competence of teachers and coaches (Dinque, 2018; Sorongon, 2020). In the present study, it refers to the respondents' assessment of how sports activities are integrated into the curriculum and the effectiveness of coaching practices.

Emotional Engagement means conceptually to learners' affective responses such as interest, enjoyment, and sense of belonging (Kukoda, 2022). In the present study, it refers to learners' reported interest in and emotional connection to sports-related activities.

Learner Engagement represents a multidimensional construct encompassing behavioral, emotional, and cognitive involvement in learning activities (Kukoda, 2022). In the present study, it refers to learners' self-reported levels of behavioral, emotional, and cognitive engagement in sports-related activities.

Prevailing Challenges refers conceptually to systemic and contextual barriers that hinder program effectiveness, including resource and personnel limitations (Dulay, 2022). In the present study, it refers to the frequency and severity of problems identified by supervisors, school heads, and teachers in implementing the sports development program.

Resource Allocation and Facilities refers to the availability and adequacy of financial resources, equipment, and physical facilities necessary for sports programs (Cipriano et al., 2024). In the present study, the term refers to the respondents' assessment of the sufficiency and condition of sports-related resources and facilities.

Sports Development Program describes, theoretically, structured school-based initiatives that integrate physical resources, curriculum-aligned activities, competent coaching, and administrative and community support to promote learner development through sports (Cipriano et al., 2024). In the present study, it refers to the respondents' assessment scores refer to resource allocation and facilities, curriculum integration and coaching competency, and administrative and community support.

CHAPTER 2

REVIEW OF RELATED LITERATURE AND STUDIES

Local Literature

Sports participation, learner engagement, and instructional effectiveness in Philippine basic education is anchored in constitutional mandates, national policies, and empirical studies that collectively promote holistic learner development and quality education.

First, the 1987 Philippine Constitution provides the primary legal foundation for sports and education in the country. According to the Official Gazette of the Republic of the Philippines (2019), Article II, Section 17 emphasizes that the State shall prioritize education, science and technology, arts, culture, and sports to foster patriotism, accelerate social progress, and promote total human development. Similarly, Article XIV, Section 19 mandates the promotion of physical education and sports programs, league competitions, and amateur sports to develop self-discipline, teamwork, and excellence among citizens, and requires educational institutions to undertake regular sports activities nationwide. These provisions establish sports and physical activities as essential components of learner development and serve as the legal basis for school-based sports programs.

To operationalize these constitutional mandates, national laws and education policies have been enacted. Republic Act No. 5708, or the Schools Physical Education and Sports Development Act of 1969, requires schools to implement an integrated physical education and sports development program that promotes learners' physical growth, discipline, and social development. Likewise, Republic Act No. 10588, known as the Palarong Pambansa Act of 2013, institutionalizes the national school sports competition and directs educational institutions to

support sports participation. Furthermore, the Department of Education (Philippines) issued DepEd Order No. 022, s. 2025, which provides policy guidelines on the institutionalization of school sports clubs in public schools to ensure systematic implementation of sports programs that enhance learners' physical fitness and participation.

In support of this policy direction, Sonny Angara, as reported by Alcober (2025), directed the institutionalization of school sports clubs in all public elementary and secondary schools to promote holistic learner development, improve physical fitness, and address pandemic-related learning losses. This initiative forms part of the broader effort to link health and academic recovery, as Filipino learners reportedly fall below the recommended daily physical activity standards of the World Health Organization. The program complements the physical education curriculum through supervised sports activities, including mandatory arnis and inclusive sports participation for learners with and without disabilities. It also encourages partnerships with local government units and private organizations while strengthening transparency and accountability in program implementation.

Moreover, educational practices that enhance learner engagement have been widely emphasized in the literature. According to DepEd Tambayan (2026), interactive teaching methods provide opportunities for educators to improve student motivation, participation, and learning outcomes by creating learner-centered and innovative classroom experiences. Such approaches help learners develop critical thinking skills, problem-solving abilities, and lifelong learning habits, thereby improving overall academic performance.

However, despite these policy initiatives and pedagogical strategies, many public elementary schools in the Philippines, particularly in rural and underserved areas, continue to experience challenges such as overcrowded classrooms, outdated learning materials, and limited

access to technology. These constraints limit teachers' ability to provide engaging and differentiated instruction, resulting in reduced learner participation and motivation. Supporting this view, Saragena et al. (2024) found a strong relationship between teachers' instructional practices and their self-efficacy, emphasizing that effective teaching strategies significantly enhance learner engagement and academic performance. Nevertheless, the study also noted that insufficient resources and support systems prevent teachers from fully maximizing their instructional potential.

In addition to sports and instructional practices, broader educational reforms also emphasize learner-centered education. Article XIV, Section 1 of the 1987 Constitution guarantees access to quality education for all citizens, while Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, institutionalizes learner-centered pedagogical approaches such as constructivist, inquiry-based, collaborative, reflective, and integrative learning. These principles are implemented through DepEd Order No. 21, s. 2019, which promotes contextualized and collaborative teaching strategies, and DepEd Order No. 35, s. 2016, which institutionalizes the Learning Action Cell as a school-based professional development mechanism to improve instructional quality. The Philippine Professional Standards for Teachers further define teacher quality by outlining competencies in professional knowledge, practice, and engagement, while DepEd Order No. 36, s. 2013 reinforces the vision of developing holistic Filipino learners who contribute meaningfully to national development.

More recently, the implementation of the MATATAG Curriculum aims to address curriculum congestion and improve the quality of basic education. As discussed by Bacelonia (2023), the reform focuses on streamlining competencies, strengthening foundational skills such as literacy and numeracy, and enhancing socio-emotional learning to make instruction more

relevant and engaging. The curriculum seeks to improve instructional effectiveness and increase learner motivation by prioritizing essential competencies and valuing education.

Overall, the reviewed literature demonstrates that constitutional provisions, national policies, and empirical studies consistently emphasize the importance of sports participation, instructional effectiveness, teacher professional development, and learner engagement in achieving quality education. These frameworks collectively support holistic learner development, improved academic performance, and meaningful learning experiences in the Philippine basic education.

Foreign Literature

According to Landau (2024), allocation in facilities management involves the systematic distribution of available assets to ensure effective project execution and sustainable growth. Consequently, it is crucial for managing teams across multiple projects, coordinating equipment usage, and budgeting financial resources. Proper allocation directly impacts operational efficiency and bottom-line results; therefore, organizations that master resource allocation gain a significant competitive advantage, while those struggling with it often face delays, cost overruns, and missed opportunities. Moreover, in facilities management, resource allocation is essential for optimizing the deployment of human, financial, and technological resources within complex facility systems. This includes strategic workforce deployment, energy and material optimization, preventive maintenance scheduling, and the integration of digital tools for monitoring, reporting, and predictive analytics. Furthermore, performance indicators guide allocation decisions and support continuous improvement. Hence, implementing a comprehensive resource allocation model in facilities management can lead to improved operational efficiency, reduced costs and

resource waste, enhanced service quality, and increased resilience against unplanned disruptions, aligning operations with organizational sustainability goals and environmental standards.

Similarly, curriculum integration and coaching competency are closely related concepts that contribute to improving the quality and effectiveness of education. Specifically, curriculum integration refers to the process of connecting different subject areas and learning content to create a more cohesive, meaningful, and relevant learning experience. Consequently, learners engage in active and purposeful learning, enabling them to understand concepts more deeply and apply knowledge across disciplines. Meanwhile, coaching competency involves the skills and abilities required for effective facilitation of learning, including communication, experiential learning, ethical practice, adaptability, and learner support. Together, teacher competence, curriculum integration, and coaching competency significantly influence educational outcomes and support the achievement of quality education goals. In addition, developing contextually grounded and culturally responsive competency frameworks is essential, as these frameworks should encompass pedagogical knowledge, subject expertise, socio-emotional skills, ethical standards, and contextual awareness. Furthermore, integrating global competence into teaching practices fosters intercultural understanding, empathy, and appreciation of diverse languages, cultures, histories, and environments. By strengthening curriculum integration, coaching competency, teacher competence, and global awareness, educators and policymakers can create more inclusive, responsive, and globally oriented educational systems that equip learners with the knowledge, skills, and values needed to thrive in an interconnected world.

Behavioral engagement, as defined by the Neuro Editorial Team (2024), is the active participation of students in their learning, encompassing attendance, effort, persistence, adherence to rules, and involvement in classroom and extracurricular activities. As a result, it

transforms passive, disengaged learners into active participants, enhancing academic achievement, skill development, and long-term educational success. Key factors influencing engagement include individual student characteristics, teacher support, classroom environment, peer relationships, curriculum design, and instructional strategies. Moreover, effective measurement involves observation, self-reporting, teacher ratings, checklists, and technology-based tracking to monitor participation and guide interventions. To enhance engagement, strategies such as fostering a positive classroom climate, implementing active learning techniques, providing clear expectations and feedback, incorporating student interests and choices, and utilizing gamification and technology are recommended. Importantly, behavioral engagement not only improves academic performance but also supports social-emotional development, self-esteem, and a sense of belonging among students. Therefore, educators play a critical role in shaping behaviors, attitudes, and life skills, making engagement essential for holistic student growth. Ultimately, fostering behavioral engagement equips learners with the tools for success in school and beyond, creating dynamic, motivated, and lifelong learners.

In addition, emotional engagement refers to the degree to which students feel emotionally connected to their learning experiences, influencing their motivation and commitment to the educational process. For instance, when students experience interest, excitement, or enjoyment in lessons, they are more likely to participate actively, retain information, and develop a deeper understanding of the material. Research shows that emotional engagement significantly enhances academic performance by increasing students' willingness to participate in discussions and activities. Moreover, emotionally engaged students develop a positive attitude towards learning, which can lead to better retention of information and long-term success. Teachers can foster emotional engagement by creating supportive classroom environments where students feel safe

to express their thoughts and feelings, as well as by incorporating relevant and meaningful content into lessons. Furthermore, emotional engagement is linked to brain activity, as positive emotional experiences stimulate areas associated with memory and learning, thereby enhancing overall cognitive development.

Finally, cognitive engagement refers to the active investment of mental effort, attention, and curiosity in learning, problem-solving, and decision-making, going beyond mere presence or passive participation (NeuroLaunch, 2025). Specifically, it involves immersion in tasks, critical thinking, and active processing of information, such as analyzing content instead of simply consuming it. Consequently, cognitive engagement strengthens mental models, improves problem-solving skills, and enables learners to apply knowledge in new and complex situations.

Moreover, it is essential across life stages, supporting learning outcomes in youth and promoting cognitive health while reducing the risk of decline in older adults. In educational and workplace settings, cognitive engagement is fostered through active learning, social interaction, and self-regulated strategies like goal-setting, task management, and reflective practice. Measurement employs self-reports, observations, interviews, physiological sensors, and teacher ratings, often combining methods to capture the multi-dimensional nature of engagement alongside behavioral, emotional, and social components. Ultimately, high cognitive engagement improves retention, creativity, critical thinking, and decision-making, while promoting lifelong learning, adaptability, and informed decision-making in both personal and professional contexts.

Local Studies

The impact of instructional effectiveness on Key Stage 2 learners' engagement is a critical area of inquiry, particularly when considering the mediating role of learner motivation. This study examined the relationship between instructional effectiveness and learner engagement,

with learner motivation as a mediating factor, among Key Stage 2 pupils in Calape District, Bohol (SY 2024–2025). Using a descriptive-explanatory design, data were gathered from 330 learners and 72 teachers through structured questionnaires. Results showed that while teachers were perceived as highly effective and learners reported high motivation and engagement, no significant relationship was found between instructional effectiveness and learner motivation or engagement. However, there was a strong positive correlation between learner motivation and engagement. These findings highlight the crucial role of motivation in driving learner engagement, suggesting that instructional effectiveness alone is not enough without proper motivational support. An action plan was developed to integrate motivational strategies into instructional practices. (Socobos, 2025).

A study by Saragena et al., (2024) assessed the instructional practices of public elementary teachers in planning, teaching, and assessing relative to sex, age, length of teaching experience, educational attainment, and current teaching position. It also determined their self-efficacy in behavioral management, instruction, motivation, and non-teaching tasks relative to the demographics. Likewise, it correlated their instructional practices and self-efficacy. This employed the descriptive-correlational design where 192 public elementary teachers in a school division in Central Philippines responded to the validated and reliability-tested researcher-made questionnaires. In data analysis, mean, standard deviation and Pearson product-moment correlation coefficient were utilized. Generally, the teachers rated high instructional practice in planning, teaching, and assessing. Their self-efficacy was found high in behavioral management and instruction while very high in motivation and non-teaching tasks. Finally, a significant positive relationship ($r=0.807$, $p<0.001$) was found between instructional practices and self-efficacy. These findings imply that enhancing teachers' competence in planning, teaching, and

assessing may positively influence their self-efficacy. The study recommends focused interventions in these areas to ensure successful instructional processes and improve educational outcomes.

Cipriano et al., (2024). This systematic literature review examines the dynamics of sustainable sports leadership and management in educational settings, focusing on the implementation of sports development programs in schools. Through a comprehensive analysis of existing research, key findings emerge, highlighting the critical role of effective leadership, resource allocation, student outcomes, and community engagement in shaping the success and sustainability of sports initiatives. Strong leadership is identified as essential for fostering a positive sports culture, strategic planning, and alignment with educational goals. Resource constraints, including limited funding and inadequate facilities, present persistent challenges that impact the equitable access and effectiveness of sports programs. Empirical evidence demonstrates the positive impact of sports participation on academic achievement, social skills, and mental health outcomes among students. Collaborative partnerships with local organizations and stakeholders emerge as pivotal for leveraging additional resources, expertise, and support, enhancing the reach and impact of sports initiatives. These findings underscore the importance of holistic approaches to sports education and management, with implications for policymakers, educators, and practitioners seeking to promote student development and well-being through sports participation in schools.

Foreign Studies

Hoa (2021) aimed to develop a reliable and comprehensive scale to assess students' engagement in physical education (PE) classes using traditional sports science methods such as document analysis, expert interviews, and Cronbach's Alpha testing. Specifically, the study

produced a 19-item questionnaire covering intellectual, cognitive, and active learning engagement, and the findings revealed that although students recognized the importance of PE, their involvement in intellectual and active learning aspects remained limited. Similarly, Bhimavarapu (2025) emphasized that sports participation provides children with opportunities for social development beyond physical skills, as structured sports environments promote communication, teamwork, leadership, and conflict resolution through guided participation.

Moreover, the study highlighted theoretical explanations such as Social Learning Theory and Positive Youth Development, demonstrating that well-structured sports programs foster social competence and holistic development.

In addition, Hastie et al. (2022) described student engagement as a multidimensional concept widely used to explain student behavior, although its application in physical education research remains inconsistent. Their findings identified different categories of engagement studies and recommended that future research clearly define engagement and incorporate both student self-perceptions and classroom observations.

Furthermore, international research supports these perspectives by emphasizing student voice and participatory decision-making, as Pardali et al. (2025) found that engagement increases when learners are actively involved in sports-related decisions. Likewise, Li et al. (2021) reported that integrating physical activity into daily routines promotes sustained participation and reduces sedentary behavior, highlighting that engagement depends on meaningful interaction rather than mere participation. Across various contexts, sports participation has been linked to academic, psychological, and social benefits, with local studies showing improvements in discipline, resilience, and motivation among student-athletes, although these outcomes depend

on adequate institutional support (Solano et al., 2025; Cipriano et al., 2024). Conversely, insufficient academic support may increase stress among student-athletes.

Meanwhile, foreign studies provide empirical evidence that sports engagement positively influences academic achievement, mental health, and social development, as demonstrated by positive relationships between sports participation and academic performance (Kukoda, 2022) and reduced stress and anxiety through regular physical activity (O'Connor, 2021). Overall, broader research syntheses confirm that sports participation serves as a universal developmental tool that supports holistic youth development across educational systems (Habyarimana et al., 2022; Kesselring, 2020).

Synthesis

The reviewed local and foreign literature and studies closely support the study on "Implementation of Sports Development Program and Learners Engagement in Public Elementary School in District III, Division of Quezon City," offering a strong foundation of relevant concepts, practices, and evidence to guide and reinforce its objectives.

Local literature highlights that sports participation, learner engagement, and instructional effectiveness in Philippine basic education are guided by constitutional mandates and national education policies promoting holistic learner development. The Official Gazette of the Republic of the Philippines (2019) explains that the 1987 Philippine Constitution mandates the promotion of education and sports to support total human development, serving as the legal foundation for school-based sports programs. Supporting this mandate, Republic Act No. 5708, Republic Act No. 10588, and Republic Act No. 10533 institutionalize physical education, sports development, and learner-centered approaches in schools. Furthermore, Sonny Angara, as reported by Alcober (2025), advocated the institutionalization of school sports clubs to improve learners' physical

fitness, promote holistic development, and address learning gaps caused by the pandemic. In addition, DepEd Tambayan (2026) emphasizes that interactive teaching approaches enhance student motivation, participation, and learning outcomes, while Bacelonia (2023) explains that the MATATAG Curriculum strengthens foundational skills and learner engagement through streamlined competencies. However, Saragena et al. (2024) point out that limited resources and institutional constraints continue to affect instructional effectiveness, highlighting the need for adequate support systems to improve learner participation and academic performance.

Foreign literature presents theoretical perspectives on learner engagement, instructional effectiveness, and educational quality, emphasizing the importance of supportive learning environments. Landau (2024) highlights the significance of resource allocation in improving organizational performance, which is relevant to the effective management of school facilities and sports programs. Likewise, the Neuro Editorial Team (2024) explains behavioral engagement as students' active participation that enhances academic achievement and social development, while NeuroLaunch (2025) describes cognitive engagement as the investment of mental effort that strengthens critical thinking and learning outcomes. These perspectives collectively underscore the multidimensional nature of engagement—behavioral, emotional, and cognitive—and stress that effective curriculum integration, coaching competency, and supportive learning environments are essential for improving instructional quality and learner participation in educational settings.

Local empirical studies demonstrate the relationship between instructional effectiveness, learner motivation, and sports program implementation in Philippine schools. Socobos (2025) found that learner motivation significantly influences engagement among Key Stage 2 pupils, showing that instructional effectiveness alone may not ensure active participation without

motivational support. Similarly, Saragena et al. (2024) established a significant relationship between teachers' instructional practices and self-efficacy, indicating that teacher competence enhances learner engagement and academic performance. Moreover, Cipriano et al. (2024) identified leadership, resource allocation, and community partnerships as key factors in the successful implementation of school sports programs, highlighting their positive effects on students' academic achievement, social skills, and well-being. Overall, these studies emphasize the importance of effective teaching strategies, institutional support, and sustainable sports programs in promoting learner development.

Foreign studies provide empirical evidence on the impact of sports participation and engagement on learners' development and educational outcomes. Hoa (2021) developed a scale measuring students' engagement in physical education and found that although learners value physical education, their active involvement remains limited. Similarly, Bhimavarapu (2025) reported that sports participation enhances children's social skills, teamwork, and leadership through structured activities. Moreover, Hastie et al. (2022) described student engagement as a multidimensional concept and recommended clearer definitions and measurement approaches in physical education research. In addition, Pardali et al. (2025) found that student involvement in decision-making increases engagement, while Li et al. (2021) showed that integrating physical activity into daily routines promotes sustained participation. Furthermore, Kukoda (2022) linked sports participation to improved academic performance, O'Connor (2021) identified mental health benefits of physical activity, and broader syntheses by Habyarimana et al. (2022) and Kesselring (2020) confirmed sports participation as a universal tool for holistic youth development.

Overall, local and foreign literature and studies consistently demonstrate that sports participation, learner engagement, and instructional effectiveness are essential components of quality education and holistic learner development. While Philippine policies and studies highlight the importance of legal mandates, institutional support, and contextual challenges in program implementation, foreign research reinforces the value of structured sports programs, multidimensional engagement, and learner-centered practices. The convergence of these findings underscores the significance of effective resource management, instructional competence, and inclusive sports development programs in enhancing student engagement, academic achievement, and overall well-being, thereby providing strong theoretical and empirical support for the present study.

CHAPTER 3

METHODOLOGY

Research Design

This study adopts the descriptive research design, which is highly appropriate for the present study because it focuses on providing a detailed and accurate picture of the current state of sports development program implementation and learner engagement in public elementary schools in District III, Division of Quezon City. According to Creswell and Creswell (2018), descriptive designs are used to observe, describe, and document aspects of a situation as it naturally occurs, making it suitable for educational research that seeks to understand existing conditions without manipulating variables. By using this design, the researcher can systematically measure and describe the level of sports program implementation and learner engagement, identify patterns and trends, and detect variations across schools. Moreover, descriptive research provides baseline data that can be used in correlational analysis to determine the strength and direction of the relationship between program implementation and learner engagement. Therefore, this design is appropriate because it captures the real-world dynamics of school-based sports initiatives and learner participation, allowing the study to generate practical, evidence-based insights for enhancing instructional practices and student outcomes.

Population and Sampling

This study utilized a total of 278 respondents composed 10 district supervisors (PSDS), 17 school heads, 260 teachers, from 17 public elementary schools in District III, Division of Quezon City. These schools vary significantly in size, particularly in teacher population, which

necessitates a sampling approach that ensures proportional representation and minimizes sampling bias.

In the present study, purposive sampling was employed to strategically select respondents who could provide rich and relevant insights into the implementation of sports development programs and learner engagement in public elementary schools in District III, Division of Quezon City. As explained by Nikolopoulou (2023), purposive sampling involves intentionally choosing participants based on specific characteristics to ensure that those included have direct experience and knowledge of the phenomenon under investigation. Accordingly, school administrators, sports coordinators, and selected stakeholders were deliberately chosen because of their involvement in planning, implementing, or monitoring school-based sports programs, ensuring that the data collected would accurately reflect current practices and challenges. Meanwhile, simple random sampling (Thomas, 2023) was used to select teacher respondents, giving each teacher an equal chance of inclusion and ensuring a representative sample of the larger population. To determine the appropriate sample size of teachers, Slovin's formula was applied, balancing representativeness with feasibility. Overall, this combination of purposive and random sampling ensured that the study captured both in-depth, context-specific insights from key informants and generalizable perspectives from the broader teacher population, enhancing the validity and reliability of the findings relative to the study's objectives.

Table 1

Respondents of the Study

Respondents	N	n	%
Supervisors	10	10	100.00
School Heads	17	17	100.00
Teachers	742	260	35.04
Total	769	287	37.32

The distribution of respondents in the study included supervisors, school heads, and teachers. All identified supervisors (10 out of 10) and school heads (17 out of 17) participated in the study, reflecting a 100% response rate for these groups. In contrast, 260 out of 742 teachers responded, representing 35.04 percent of the total teacher population. Overall, the study obtained 287 respondents from a total population of 769 individuals, resulting in an overall response rate of 37.32 percent. This indicates that while the participation of key administrative personnel was complete, teacher participation was lower, which may reflect challenges in reaching a larger teacher population, but still provides a substantial sample for analysis.

Table 2

Respondents by School

Schools	Supervisor			School Heads			Teachers			Total		
	N	n	%	N	n	%	N	n	%	N	n	%
15th Avenue ES				1	1	100	17	6	35.29	18	7	38.89
Aguinaldo ES				1	1	100	28	10	35.71	29	11	37.93
Bagumbayan ES				1	1	100	20	7	35.00	21	8	38.10
Balara ES				1	1	100	118	41	34.75	119	42	35.29
Batino ES				1	1	100	40	14	35.00	41	15	36.59
Cubao ES				1	1	100	62	22	35.48	63	23	36.51
Camarilla ES				1	1	100	18	6	33.33	19	7	36.84
Doña Josefa ES				1	1	100	28	10	35.71	29	11	37.93
Eulogio Rodriguez Sr. ES				1	1	100	32	11	34.38	33	12	36.36
Fort Aguinaldo ES				1	1	100	13	5	38.46	14	6	42.86
Kalantiyaw ES				1	1	100	17	6	35.29	18	7	38.89
Libis ES				1	1	100	18	6	33.33	19	7	36.84
Old Balara ES				1	1	100	116	41	35.34	117	42	35.90
Project 3 ES				1	1	100	35	12	34.29	36	13	36.11
Pura V Kalaw ES				1	1	100	60	21	35.00	61	22	36.07
Quirino ES				1	1	100	87	30	34.48	88	31	35.23
Teodora Alonzo ES				1	1	100	33	12	36.36	34	13	38.24
District Office	10	10	100							10	10	100
Total	10	10	100	17	17	100	742	260	35.04	769	287	37.32

The distribution of respondents across the 17 public elementary schools and the District Office in District III, Division of Quezon City. Each school had 10 supervisors, all of whom responded, resulting in a 100% response rate for supervisors. Likewise, all school heads in every school participated, also achieving a 100% response rate. Teacher participation varied by school, reflecting differences in population and availability. Specifically, 6 out of 17 teachers at 15th Avenue ES participated (35.29%), 10 out of 28 at Aguinaldo ES (35.71%), 7 out of 20 at Bagumbayan ES (35.00%), 41 out of 118 at Balara ES (34.75%), 14 out of 40 at Batino ES (35.00%), 22 out of 62 at Cubao ES (35.48%), 6 out of 18 at Camarilla ES (33.33%), 10 out of 28 at Doña Josefa ES (35.71%), 11 out of 32 at Eulogio Rodriguez Sr. ES (34.38%), 5 out of 13 at Fort Aguinaldo ES (38.46%), 6 out of 17 at Kalantiyaw ES (35.29%), 6 out of 18 at Libis ES (33.33%), 41 out of 116 at Old Balara ES (35.34%), 12 out of 35 at Project 3 ES (34.29%), 21 out of 60 at Pura V. Kalaw ES (35.00%), 30 out of 87 at Quirino ES (34.48%), and 12 out of 33 at Teodora Alonzo ES (36.36%).

In total, there were 769 teachers across all schools, of which 287 participated, resulting in an overall teacher response rate of 37.32%. When combined with supervisors and school heads, the total number of potential respondents was 769, with 287 participating, yielding an overall response rate of 37.32%. This distribution demonstrates full administrative representation across all schools, ensuring supervisory and leadership perspectives are captured. Meanwhile, the moderate participation of teachers provides a representative sample to examine the implementation of sports development programs, instructional effectiveness, and learner engagement across diverse school contexts within the district.

Respondents of the Study

The district supervisor, school heads, and teachers from the selected public elementary schools in District III, Division of Quezon City, were the respondents of the study. They were described according to their classification in terms of age, sex, civil status, educational attainment, and number of years in service, as presented in the following tables:

Table 3

Respondents as to Age

Age	Supervisors		School Heads		Teachers		Total	
	f	%	f	%	f	%	f	%
51 years old and above	4	40	9	52.94	17	6.54	30	10.45
46 – 50 years old	6	60	2	11.76	34	13.08	42	14.63
41 – 45 years old			4	23.53	66	25.38	70	24.39
36 – 40 years old			2	11.76	69	26.54	71	24.74
31 – 35 years old					40	15.38	40	13.94
26 – 30 years old					28	10.77	28	9.76
21 – 25 years old					6	2.31	6	2.09
Total	10	100	17	100	260	100	287	100

Table 3 presents the age distribution of the respondents, consisting of supervisors, school heads, and teachers. A total of 287 respondents participated in the study, comprising 10 supervisors, 17 school heads, and 260 teachers.

Among the supervisors, the majority (6 or 60.00%) were 46–50 years old, while 4 (40.00%) were 51 years old and above.

For the school heads, the largest proportion (9 or 52.94%) were 51 years old and above, followed by 4 (23.53%) who were 41–45 years old, and 2 (11.76%) each in the 36–40 and 46–50 age brackets.

Among the teachers, the highest percentage (69 or 26.54%) belonged to the 36–40 years old group, closely followed by 66 (25.38%) aged 41–45 years old. Teachers aged 31–35 years old accounted for 40 (15.38%), while 34 (13.08%) were 46–50 years old. Meanwhile, 28 (10.77%) were 26–30 years old, 17 (6.54%) were 51 years old and above, and only 6 (2.31%) were 21–25 years old.

Considering the overall distribution, the largest age group was 36–40 years old with 71 respondents (24.74%), followed closely by 41–45 years old with 70 respondents (24.39%). Respondents aged 46–50 years old comprised 42 (14.63%), while 40 (13.94%) were 31–35 years old. Those aged 51 years old and above accounted for 30 (10.45%), followed by 26–30 years old with 28 (9.76%), and 21–25 years old with only 6 respondents (2.09%).

Table 4

Respondents as to Sex

Sex	Supervisors		School Heads		Teachers		Total	
	f	%	f	%	f	%	f	%
Female	6	60	14	82.35	183	70.38	203	70.73
Male	4	40	3	17.65	77	29.62	84	29.27
Total	10	100	17	100	260	100	287	100.00

Table 4 presents the distribution of respondents according to sex. A total of 287 respondents participated in the study, consisting of 10 supervisors, 17 school heads, and 260 teachers.

Among the supervisors, 6 (60.00%) are female, while 4 (40.00%) are male.

For the school heads, the majority are also female, with 14 (82.35%) respondents compared to only 3 (17.65%) males.

Similarly, among the teachers, 183 (70.38%) are female, while 77 (29.62%) are male. This indicates that the teaching workforce is predominantly female, reflecting the long-standing trend in the education sector where women comprise a substantial proportion of classroom teachers.

Overall, of the 287 respondents, 203 (70.73%) are female, whereas 84 (29.27%) are male. The results clearly show that females significantly outnumber males across all categories of respondents.

Table 5

Respondent as to Civil Status

Civil Status	Supervisors		School Heads		Teachers		Total	
	f	%	f	%	f	%	f	%
Single	1	10	1	5.88	38	14.62	40	13.94
Married	7	70	16	94.12	219	84.23	242	84.32
Widow/er	2	20			3	1.15	5	1.74
Total	10	100	17	100	260	100	287	100.00

Table 5 presents the distribution of respondents according to civil status, comprising 10 supervisors, 17 school heads, and 260 teachers, for a total of 287 respondents.

Among the supervisors, 7 (70.00%) are married, 2 (20.00%) are widowed, and 1 (10.00%) is single.

For the school heads, an overwhelming majority of 16 (94.12%) are married, with only 1 (5.88%) identified as single. No school heads reported being widowed.

Among the teachers, 219 (84.23%) are married, 38 (14.62%) are single, and 3 (1.15%) are widowed.

Overall, 242 (84.32%) of the 287 respondents are married, making it the most common civil status in the study. This is followed by 40 (13.94%) who are single and 5 (1.74%) who are widowed.

Table 6

Respondents as to Educational Attainment

Educational Attainment	Supervisors		School Heads		Teachers		Total	
	f	%	f	%	f	%	f	%
Doctorate Degree	6	60	3	17.65	1	0.38	10	3.48
Doctorate with Units	4	40	12	70.59	3	1.15	19	6.62
Master's Degree			1	5.88	26	10	27	9.41
Master's with Units			1	5.88	97	37.31	98	34.15
Bachelor's Degree					133	51.15	133	46.34
Total	10	100	17	100	260	100	287	100.00

Table 6 presents the educational attainment of the respondents, consisting of 10 supervisors, 17 school heads, and 260 teachers, for a total of 287 respondents.

Among the supervisors, 6 (60.00%) have completed a Doctorate Degree, while 4 (40.00%) have Doctorate units. For the school heads, the majority, 12 (70.59%), have Doctorate units, while 3 (17.65%) have completed a Doctorate Degree. The remaining 2 (11.76%) are equally divided between those with a Master's Degree and those with Master's units. Among the teachers, the largest group, 133 (51.15%), hold a Bachelor's Degree, followed by 97 (37.31%) with Master's units and 26 (10.00%) who have completed a Master's Degree. Only 3 (1.15%) have Doctorate units, while 1 (0.38%) has earned a Doctorate Degree.

Overall, 133 respondents (46.34%) possess a Bachelor's Degree, making it the most common educational qualification. This is followed by 98 (34.15%) with Master's units, 27

(9.41%) with a Master's Degree, 19 (6.62%) with Doctorate units, and 10 (3.48%) who have completed a Doctorate Degree.

Table 7

Respondents as to Number of Years in Service

Number of Years in Service	Supervisors		School Heads		Teachers		Total	
	f	%	f	%	f	%	f	%
31 years and above		0			2	0.77	2	0.70
26 – 30 years	2	20	10	58.82	18	6.92	30	10.45
21 – 25 years	8	80	6	35.29	66	25.38	80	27.87
16 – 20 years		0	1	5.88	79	30.38	80	27.87
11 – 15 years		0			57	21.92	57	19.86
6 – 10 years		0			35	13.46	35	12.20
1 – 5 years		0			3	1.15	3	1.05
Total	10	100	17	100	260	100	287	100.00

Table 7 presents the distribution of respondents according to their number of years in service. The study involved 287 respondents, comprising 10 supervisors, 17 school heads, and 260 teachers.

Among the supervisors, 8 (80.00%) have 21–25 years of service, while 2 (20.00%) have 26–30 years of experience. None of the supervisors reported fewer than 21 years of service.

For the school heads, the majority, 10 (58.82%), have 26–30 years of service, followed by 6 (35.29%) with 21–25 years, and 1 (5.88%) with 16–20 years of experience.

Among the teachers, the largest group consists of 79 (30.38%) respondents with 16–20 years of service, followed by 66 (25.38%) with 21–25 years, 57 (21.92%) with 11–15 years, 35 (13.46%) with 6–10 years, 18 (6.92%) with 26–30 years, 3 (1.15%) with 1–5 years, and only 2 (0.77%) with 31 years and above.

Overall, the highest proportions of respondents fall within the 21–25 years and 16–20 years categories, each comprising 80 respondents (27.87%). This is followed by 57 (19.86%) with 11–15 years of service, 35 (12.20%) with 6–10 years, 30 (10.45%) with 26–30 years, 3 (1.05%) with 1–5 years, and only 2 (0.70%) with 31 years and above.

Research Instrument

1. Survey Questionnaire. The primary instrument utilized for data collection in this study was a researcher-made survey questionnaire, which was specifically developed to address the research problems and objectives presented in Chapter 1. The questionnaire was carefully designed by the researcher under the guidance and supervision of the research adviser to ensure its alignment with the conceptual framework, research variables, and overall purpose of the study. Specifically, the instrument was intended to assess the implementation of sports development programs and learner engagement in public elementary schools in District III, Schools Division Office of Quezon City.

The questionnaire was developed through a comprehensive review of relevant local and international literature, empirical studies, government policies, and existing theoretical frameworks related to sports development, learner engagement, school innovation, and stakeholder empowerment. The indicators included in the instrument were operationalized based on the identified dimensions of the independent and dependent variables. The first part of the questionnaire gathered the demographic profile of the respondents, including age, sex, civil status, educational attainment, and years in service. The succeeding sections measured the extent of implementation of sports development programs across key dimensions such as sports facilities and equipment, coaching and training, funding and resource allocation, curriculum integration, student participation, stakeholder involvement, and monitoring and evaluation.

Another section assessed learner engagement in terms of behavioral, emotional, and cognitive engagement. The final section evaluated the proposed intervention program in terms of its objectives, relevance, content, applicability, and acceptability.

To ensure content validity, the questionnaire underwent a rigorous expert validation process. It was evaluated by a panel composed of Graduate School faculty members, education supervisors, school administrators, and subject matter experts with extensive experience in educational leadership, physical education, sports development, and educational research. Their comments and recommendations focused on the clarity, relevance, appropriateness, organization, and comprehensiveness of the questionnaire items. Necessary revisions were incorporated to improve the precision and alignment of each indicator with the research objectives.

Following the validation process, the revised questionnaire was subjected to pilot testing among teachers from public elementary schools outside the actual study area to avoid contamination of the research sample. The pilot test aimed to determine the clarity of instructions, readability of items, appropriateness of language, and reliability of the instrument. Responses obtained from the pilot participants were statistically analyzed to determine the internal consistency of the questionnaire using an appropriate reliability measure, while qualitative feedback was used to identify ambiguous or redundant statements. Based on the results, minor revisions were made to improve the wording, sequencing, and overall effectiveness of the instrument.

The final version of the questionnaire represents the collaborative efforts of the researcher, research adviser, expert validators, and pilot respondents. Having undergone systematic development, validation, and reliability testing, the instrument is considered appropriate for gathering accurate, reliable, and meaningful data. It is expected to generate valid

information that will enable the researcher to examine the implementation of sports development programs and learner engagement, determine the relationships among the study variables, and provide a sound basis for the development of an evidence-based intervention program for public elementary schools in District III, Schools Division Office of Quezon City.

The following are the parts of the survey questionnaire:

Part I. Profile of the Respondents. This part was used to gather data on the demographic profile of the respondents in terms of age, sex, civil status, educational attainment, and number of years in service

Part II. Assessment on the School Innovations in Selected Schools in the Division of Manila. This part was used to elicit data as to the implementation of the sports development program in selected public elementary schools in District III, Division of Quezon City, in terms of Resource Allocation and Facilities, Curriculum Integration and Coaching Competency, and Administrative and Community Support.

Part III. Assessment on the level of learners' engagement. This was utilized to obtain information about the level of learners' engagement in terms of Behavioral Engagement (attendance and participation), Emotional Engagement (interest and belonging), and Cognitive Engagement (strategic thinking and goal setting).

Part IV. Assessment on the Challenges Encountered by the Respondents Relative to the relative to the implementation of the Sports Development Program. It was utilized to collect data as to the Challenges Encountered by the Respondents Relative to the relative to the implementation of the sports development program.

Part V. Assessment on the Acceptability of the Proposed Intervention Program.

This part was used to gather information as to the Acceptability of the Proposed Intervention Program

Data Gathering Procedures

The data-gathering process was conducted systematically through the following steps:

1. Securing approval from the Schools Division Superintendent of Quezon City.
2. Coordination with school heads to schedule data collection and explain the purpose of the study.
3. Distribution of informed consent forms to all respondents, ensuring voluntary participation.
4. Administration of the validated questionnaires, both personally and electronically, to the district supervisor, school heads, teachers, and learners.
5. Retrieval of completed questionnaires and checking for completeness and accuracy.
6. Encoding and organization of data for statistical analysis.

Statistical Treatment of Data

The data collected were analyzed using descriptive and inferential statistics.

The following are utilized in the statistical treatment of data:

1. Percentage. This was used to indicate the ratio of the proportion of the frequencies and the different variables to describe the respondents. (Nikolopoulou, 2023) This was used for the profile of the respondents in terms of age, sex, civil status, educational attainment, and number of years in service.

Five-Point Likert Scale. This method will be used to infer the data and serve as the standard upon which the data clarification is based. The legend presented will be used as follows:

2.1 Assessment of the Sport Development Program

Scale	Range	Verbal Interpretation	Symbol
5	4.20 – 5.00	Highly Practiced	HP
4	3.40 – 4.19	Practiced	P
3	2.60 – 3.39	Moderately Practiced	MP
2	1.80 – 2.59	Least Practiced	LP
1	1.00 – 1.79	Very Least Practiced	VLP

2.2 Assessment of the Learners' Engagement

Scale	Range	Verbal Interpretation	Symbol
5	4.20 – 5.00	Highly Engaged	HE
4	3.40 – 4.19	Engaged	E
3	2.60 – 3.39	Moderately Engaged	ME
2	1.80 – 2.59	Least Engaged	LE
1	1.00 – 1.79	Very Least Engaged	VLE

2.3 Assessment of the Challenges Encountered

Scale	Range	Verbal Interpretation	Symbol
5	4.20 – 5.00	Highly Encountered	HE
4	3.40 – 4.19	Encountered	E
3	2.60 – 3.39	Moderately Encountered	ME
2	1.80 – 2.59	Least Encountered	LE
1	1.00 – 1.79	Very Least Encountered	VLE

2.4 Acceptability of Proposed Intervention Program

Scale	Range	Verbal Interpretation	Symbol
5	4.20 – 5.00	Highly Acceptable	HA
4	3.40 – 4.19	Acceptable	A
3	2.60 – 3.39	Moderately Acceptable	MA
2	1.80 – 2.59	Least Acceptable	LA
1	1.00 – 1.79	Not Acceptable	NA

2. **One-Way Analysis of Variance (ANOVA).** Used to determine significant differences in stakeholder assessments (Hassan et al., 2024.). This was applied to answer sub-problem number 2.

$$F = \frac{MS_{between}}{MS_{within}}$$

Figure 4. ANOVA Formula

3. **Analysis of Variance (ANOVA).** ANOVA is effective in comparing means across multiple groups to identify statistically significant variations. (Hassan, 2024). This was applied to answer sub-problem number 2.

Formula: $F = \frac{MSS_b}{MSS_w}$

Where:

MSS_b = Mean Sum of Squares Between

MSS_w = Mean Sum of Squares Within

4. The Tukey-Kramer formula calculates the critical range for pairwise comparisons of group means, adjusting for unequal sample sizes after a significant ANOVA.

The Tukey-Kramer critical range (CR) for comparing two group means is given by:

$$s. e. = \sqrt{\frac{MS_W}{2} \left(\frac{1}{n_i} + \frac{1}{n_j} \right)}$$

Where:

QU = Studentized range statistic for the number of

groups k and degrees of freedom from the ANOVA error term at a chosen significance level (α)

MSW = Mean Square Within (pooled variance from ANOVA)

n_j, n_j' = sample sizes of the two groups being compared This formula adjusts for **unequal sample sizes**, which is the main difference from the standard Tukey HSD test that assumes equal group sizes

5. Multiple Linear Regression. Multiple linear regression is a statistical method used to model the relationship between a dependent variable (response) and two or more independent variables (predictors). In this study, linear regression is used to determine how School Management Practices and Resource Allocation Efficiency predict Organizational Performance in public elementary schools in the Division of Mandaluyong City. This method allows the researcher to identify which management and resource-related factors significantly contribute to variations in organizational performance while controlling for other variables. (Mu & Zhang, 2018). This will be used to answer sub-problem no. 5.

The general formula for a multiple linear regression model is:

$$\hat{y} = b_0 + b_1 \cdot x_1 + b_2 \cdot x_2 + \dots + b_n \cdot x_n$$

Here:

$\hat{y}$ is the predicted value of the dependent variable.

b_0 is the intercept, representing the value of $\hat{y}$ when all predictors are zero.

$b_1, b_2, \dots, b_n$ are the regression coefficients for the independent variables $x_1, x_2, \dots, x_n$, indicating the change in $\hat{y}$ for a one-unit change in the corresponding predictor, holding other predictors constant.

Guide in interpreting Coefficient Correlation (Papageorgiou, 2022).

Range	Verbal Interpretation	Symbol
1.00	Perfect Correlation	PC
0.80 – 0.99	Very Strong Correlation	VSC
0.60 – 0.79	Strong Correlation	SC
0.40 – 0.59	Moderate Correlation	MC
0.20 – 0.39	Weak Correlation	WC

6. Slovin's formula is used to calculate the minimum sample size needed to estimate a statistic based on an acceptable margin of error. (Bobbitt, 2023).

Slovin's formula is calculated as:

$$n = N / (1 + Ne^2)$$

where:

n: Sample size needed

N: Population size

e: Acceptable margin of error

CHAPTER 4

Presentation, Analysis, and Interpretation of Data

Subproblem No. 1. How do the supervisors, school heads, and teachers assess the implementation of the sports development program?

1.1 Resource Allocation and Facilities

On the data of resource allocation and facilities, the implementation of the sports development program is highly evident as assessed by supervisors, school administrators, and teachers, with respective overall weighted means of 5.00, 4.74, and 4.46.

Collectively, based on the composite results arranged from highest to lowest, the foremost indicator is “The school allocates sufficient budget for sports equipment, uniforms, and athletic supplies,” which ranked 1st with a composite weighted mean of 4.91. Closely following is “The school maximizes partnerships, sponsorships, or community support to enhance sports resources,” positioned 2nd with a composite weighted mean of 4.84. In third place is “The school provides safe, accessible, and well-maintained sports facilities (e.g., courts, fields, gymnasiums),” which

Table 8

Assessment on Resource Allocation and Facilities

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1 The school allocates sufficient budget for sports equipment, uniforms, and athletic supplies.	4.30	HE	5.00	HE	4.72	HE	4.67	HE	1

2 Funds for sports development are regularly planned, monitored, and utilized according to program needs.	3.90	HE	4.65	HE	4.54	HE	4.36	HE	7
3 The school provides safe, accessible, and well-maintained sports facilities (e.g., courts, fields, gymnasiums).	3.90	HE	5.00	HE	4.43	HE	4.44	HE	3.5
4 Available sports equipment is adequate in quantity and appropriate for students' age and skill levels.	3.70	HE	4.53	HE	4.16	HE	4.13	HE	10
5 The school ensures regular repair, upgrading, and maintenance of sports facilities and equipment.	3.80	HE	5.00	HE	4.22	HE	4.34	HE	8
6 Sports resources are distributed fairly among different grade levels, teams, and sports events.	4.00	HE	4.65	HE	4.55	HE	4.40	HE	5.5
7 The school maximizes partnerships, sponsorships, or community support to enhance sports resources.	3.90	HE	5.00	HE	4.52	HE	4.47	HE	2
8 Storage areas for sports equipment are organized, secure, and conducive to equipment preservation.	3.90	HE	4.53	HE	4.51	HE	4.31	HE	9
9 The school provides appropriate training spaces for both indoor and outdoor sports activities.	4.30	HE	4.53	HE	4.49	HE	4.44	HE	3.5
10 Resource allocation decisions for sports programs are data-driven and aligned with students' participation	4.20	HE	4.53	HE	4.48	HE	4.40	HE	5.5

needs.									
Overall Weighted Mean	3.99	HE	4.74	HE	4.46	HE	4.40	HE	

Legend:

Option	Range	Interpretation
5	4.20 – 5.00	Highly Evident (HE)
4	4.19 – 3.40	Evident (E)
3	2.60 – 3.39	Moderately Evident (ME)
2	1.80 – 2.59	Least Evident (LE)
1	1.00 – 1.70	Not Evident (NE)

On the data of resource allocation and facilities, the implementation of the sports development program is highly evident as assessed by supervisors, school administrators, and teachers, with respective overall weighted means of 5.00, 4.74, and 4.46.

Collectively, based on the composite results arranged from highest to lowest, the foremost indicator is “The school allocates sufficient budget for sports equipment, uniforms, and athletic supplies,” which ranked 1st with a composite weighted mean of 4.91. Closely following is “The school maximizes partnerships, sponsorships, or community support to enhance sports resources,” positioned 2nd with a composite weighted mean of 4.84. In third place is “The school provides safe, accessible, and well-maintained sports facilities (e.g., courts, fields, gymnasiums),” which obtained a composite weighted mean of 4.81. Next in rank is “The school ensures regular repair, upgrading, and maintenance of sports facilities and equipment,” which placed 4th with a composite weighted mean of 4.74. Sharing the 5.5 rank are two indicators: “Funds for sports development are regularly planned, monitored, and utilized according to program needs” and “Sports resources are distributed fairly among different grade levels, teams, and sports events,” both registering a composite weighted mean of 4.73. Proceeding further, “Storage areas for sports equipment are organized, secure, and conducive to equipment preservation” obtained 4.68 and ranked 7th. “The school provides appropriate training spaces for

both indoor and outdoor sports activities” followed in 8th place with a composite weighted mean of 4.67, while “Resource allocation decisions for sports programs are data-driven and aligned with students’ participation needs” also recorded 4.67 and ranked 9th. Lastly, “Available sports equipment is adequate in quantity and appropriate for students’ age and skill levels” placed 10th with a composite weighted mean of 4.56. Overall, the composite weighted mean of 4.73 is interpreted as Highly Evident.

This signifies that the sports development program is strongly supported through well-distributed resources, functional facilities, and active institutional partnerships. It further reflects that planning, budgeting, and maintenance systems are effectively implemented to sustain sports-related activities. The consistently high ratings across indicators imply that stakeholders recognize the robustness of resource management practices in promoting sports development. Moreover, the results suggest that while all areas are generally well-implemented, continuous enhancement in equipment adequacy and data-driven allocation may further strengthen program effectiveness. Ultimately, the findings affirm that strong resource allocation and facility management are vital pillars in sustaining an effective sports development program within the schools.

According to Landau (2024), Resource allocation in facilities management refers to the systematic and strategic distribution of resources such as equipment, finances, personnel, and technology to ensure efficient operations and sustainable development. It plays a vital role in coordinating multiple tasks, optimizing equipment use, and supporting effective budgeting and planning. Proper allocation enhances operational efficiency and leads to better organizational outcomes, while poor management may result in delays, increased costs, and inefficiencies. It also involves strategic deployment of workforce, maintenance scheduling, and the use of digital

tools for monitoring and performance tracking. Additionally, performance indicators guide decision-making to ensure continuous improvement in resource use. Ultimately, effective resource allocation improves service delivery, reduces waste, and strengthens organizational resilience and sustainability.

1.2 Curriculum Integration and Coaching Competency

Table 8

Assessment on Curriculum Integration and Coaching Competency

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1 Sports and physical fitness activities are clearly integrated into the school curriculum and learning competencies.	4.80	HE	5.00	HE	4.80	HE	4.87	HE	3
2 Teachers align sports-related activities with the objectives of the Physical Education curriculum.	4.70	HE	5.00	HE	4.75	HE	4.82	HE	5
3 Coaches and teachers demonstrate adequate knowledge of sports rules, techniques, and training principles.	5.00	HE	5.00	HE	4.80	HE	4.93	HE	1
4 The school provides professional development or training opportunities to enhance coaching skills.	4.70	HE	5.00	HE	4.88	HE	4.86	HE	4
5 Coaching strategies used by teachers promote both skill development and sportsmanship among	5.00	HE	5.00	HE	4.30	HE	4.77	HE	6

6	Teachers and coaches effectively differentiate training to suit students' abilities, interests, and fitness levels.	4.90	HE	4.53	HE	4.79	HE	4.74	HE	8
7	Lesson plans incorporate structured sports drills, practice sessions, and performance assessments.	4.60	HE	4.47	HE	4.68	HE	4.58	HE	10
8	Coaches use safe, inclusive, and learner-centered approaches during sports instruction and training.	5.00	HE	5.00	HE	4.65	HE	4.88	HE	2
9	Collaboration among teachers, coaches, and administrators supports the effective delivery of sports programs.	5.00	HE	5.00	HE	4.30	HE	4.77	HE	6
10	Monitoring and feedback mechanisms are in place to evaluate coaching effectiveness and student progress.	4.60	HE	5.00	HE	4.47	HE	4.69	HE	9
Overall Weighted Mean		4.83	HE	4.90	HE	4.64	HE	4.79	HE	

On the data of curriculum integration and coaching competency, the implementation of the sports development program is highly evident as assessed by the supervisors, school administrators, and teachers, with respective overall weighted means of 4.83, 4.90, and 4.64, all verbally interpreted as Highly Evident (HE).

Collectively, based on the composite results arranged from highest to lowest, the foremost indicator is "Coaches and teachers demonstrate adequate knowledge of sports rules, techniques, and training principles," which ranked 1st with a composite weighted mean of 4.93.

Closely following is “Coaches use safe, inclusive, and learner-centered approaches during sports instruction and training,” which ranked 2nd with a composite weighted mean of 4.88. In 3rd place is “Sports and physical fitness activities are clearly integrated into the school curriculum and learning competencies,” with a composite weighted mean of 4.87. This is followed by “The school provides professional development or training opportunities to enhance coaching skills,” which ranked 4th with a composite weighted mean of 4.86. “Teachers align sports-related activities with the objectives of the Physical Education curriculum” placed 5th with a composite weighted mean of 4.82. Sharing the 6th rank are “Coaching strategies used by teachers promote both skill development and sportsmanship among learners” and “Collaboration among teachers, coaches, and administrators supports the effective delivery of sports programs,” both registering a composite weighted mean of 4.77. Next is “Teachers and coaches effectively differentiate training to suit students’ abilities, interests, and fitness levels,” which ranked 8th with a composite weighted mean of 4.74. “Monitoring and feedback mechanisms are in place to evaluate coaching effectiveness and student progress” followed in 9th place with a composite weighted mean of 4.69. Lastly, “Lesson plans incorporate structured sports drills, practice sessions, and performance assessments” ranked 10th with a composite weighted mean of 4.58. Overall, the composite weighted mean of 4.79 is interpreted as Highly Evident.

This signifies that curriculum integration and coaching competency are strongly embedded in the implementation of the sports development program across the participating schools. The highest-rated indicators demonstrate that teachers and coaches possess the necessary expertise in sports instruction and consistently apply safe, inclusive, and learner-centered coaching practices. Likewise, the integration of sports activities into the curriculum and the provision of professional development opportunities indicate a strong institutional

commitment to enhancing both instructional quality and coaching effectiveness. Although all indicators received highly evident ratings, the comparatively lower ratings for lesson planning and monitoring mechanisms suggest opportunities to further strengthen structured instructional planning and systematic evaluation of coaching practices. Overall, the findings affirm that effective curriculum integration and competent coaching significantly contribute to the successful implementation of sports development programs, fostering students' physical, social, and character development while promoting excellence in school sports.

Curriculum integration enhances learner understanding by promoting the application of knowledge across various disciplines and encouraging more active engagement in learning. Coaching competency, on the other hand, pertains to the knowledge, skills, and attitudes required by teachers or coaches to effectively facilitate learning, including communication, adaptability, ethical practice, and learner support. When combined, curriculum integration and coaching competency contribute significantly to improving teaching quality and learner outcomes. Strengthening these areas ensures that instruction becomes more relevant, responsive, and learner-centered. Ultimately, both concepts support the development of holistic education that prepares learners for academic success and real-world application.

1.3 Administrative and Community Support

Table 8

Assessment on Administrative and Community Support

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1 School administrators actively promote and prioritize the sports development program in school plans and policies.	4.60	HE	5.00	HE	4.74	HE	4.78	HE	3
2 The school leadership provides clear guidelines and supervision for the implementation of sports activities.	4.60	HE	5.00	HE	4.18	HE	4.59	HE	7
3 Administrative support ensures adequate scheduling of sports training, competitions, and related activities.	4.60	HE	5.00	HE	4.06	HE	4.55	HE	8
4. The school allocates time for coordination meetings related to sports program planning and monitoring.	5.00	HE	5.00	HE	4.19	HE	4.73	HE	5
5. Parents and guardians are encouraged to support students' participation in sports activities and events.	5.00	E	5.00	HE	4.38	HE	4.79	HE	2
6. The school collaborates with local government units, sports organizations, or community partners to strengthen sports programs.	4.50	E	4.53	HE	4.28	HE	4.44	HE	10
7. Community stakeholders provide	4.60	E	4.47	HE	4.55	HE	4.54	HE	9

resources, sponsorships, or technical assistance for sports activities.									
8. The school recognizes and celebrates students' sports achievements with support from the community.	4.80	E	5.00	HE	4.47	HE	4.76	HE	4
9 Communication between the school and community regarding sports events and programs is regular and effective.	4.90	E	5.00	HE	4.63	HE	4.84	HE	1
10 Administrative and community support contributes to sustaining long-term sports development initiatives in the school.	4.70	E	5.00	HE	4.23	HE	4.64	HE	6
Overall Weighted Mean	4.73	HE	4.90	HE	4.37	HE	4.67	HE	

On the data of administrative and community support, the implementation of the sports development program is highly evident as assessed by the supervisors, school administrators, and teachers, with respective overall weighted means of 4.73, 4.90, and 4.37, all verbally interpreted as Highly Evident (HE).

Collectively, based on the composite results arranged from highest to lowest, the foremost indicator is "Communication between the school and community regarding sports events and programs is regular and effective," which ranked 1st with a composite weighted mean of 4.84. Closely following is "Parents and guardians are encouraged to support students' participation in sports activities and events," which ranked 2nd with a composite weighted mean of 4.79. In 3rd place is "School administrators actively promote and prioritize the sports development program in school plans and policies," with a composite weighted mean of 4.78.

Next is “The school recognizes and celebrates students’ sports achievements with support from the community,” which ranked 4th with a composite weighted mean of 4.76. “The school allocates time for coordination meetings related to sports program planning and monitoring” placed 5th with a composite weighted mean of 4.73. This is followed by “Administrative and community support contributes to sustaining long-term sports development initiatives in the school,” which ranked 6th with a composite weighted mean of 4.64. “The school leadership provides clear guidelines and supervision for the implementation of sports activities” ranked 7th with a composite weighted mean of 4.59, while “Administrative support ensures adequate scheduling of sports training, competitions, and related activities” followed in 8th place with a composite weighted mean of 4.55. “Community stakeholders provide resources, sponsorships, or technical assistance for sports activities” ranked 9th with a composite weighted mean of 4.54. Lastly, “The school collaborates with local government units, sports organizations, or community partners to strengthen sports programs” placed 10th with a composite weighted mean of 4.44. Overall, the composite weighted mean of 4.67 is interpreted as Highly Evident.

This signifies that strong administrative leadership and active community participation are evident in supporting the implementation of the sports development program. The highest-rated indicators demonstrate that schools maintain effective communication with stakeholders and actively encourage parental involvement, which strengthens students' participation in sports activities. Likewise, school administrators exhibit a high level of commitment by integrating sports development into school plans, recognizing student achievements, and allocating time for program coordination and monitoring. Although all indicators were assessed as highly evident, the comparatively lower ratings for collaboration with local government units, sports organizations, and other community partners suggest that schools may further expand external

partnerships to enhance resources, expertise, and opportunities for student-athletes. Overall, the findings affirm that sustained administrative commitment and meaningful community engagement are essential in ensuring the long-term success and sustainability of school sports development programs.

Table 8

Assessment Summary of the Implementation of the Sports Development Program

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
Resources Allocation and Facilities	3.99	HE	4.74	HE	4.46	HE	4.40	HE	3
Curriculum Integration and Coaching Competency	4.83	HE	4.90	HE	4.64	HE	4.79	HE	1
Administrative and Community Support	4.73	HE	4.90	HE	4.37	HE	4.67	HE	2
Overall Weighted Mean	4.52	HE	4.85	HE	4.49	HE	4.62	HE	

Table 8 presents the assessment summary of the implementation of the sports development program as evaluated by the supervisors, school administrators, and teachers. The findings reveal that the implementation of the sports development program is Highly Evident across all major dimensions, with overall weighted means of 4.52 for supervisors, 4.85 for school administrators, and 4.49 for teachers, all verbally interpreted as Highly Evident (HE).

Based on the composite results arranged from highest to lowest, Curriculum Integration and Coaching Competency emerged as the highest-rated dimension, rank 1st with a composite weighted mean of 4.79, interpreted as Highly Evident. Rank 2nd is Administrative and Community Support, which obtained a composite weighted mean of 4.67, also interpreted as

Highly Evident. Meanwhile, Resource Allocation and Facilities ranked 3rd with a composite weighted mean of 4.40, likewise interpreted as Highly Evident.

The implementation of the sports development program is highly evident as assessed by the supervisors, school administrators, and teachers supported by the overall composite weighted mean of 4.62.

This signifies that the sports development program is being implemented effectively across the participating schools, with strong support in terms of curriculum integration, coaching competency, administrative leadership, community involvement, and resource management. The consistently high ratings across all dimensions reflect stakeholders' positive perceptions of the schools' commitment to promoting sports participation, physical fitness, and holistic learner development. While all aspects were assessed as highly evident, the comparatively lower rating for resource allocation and facilities suggests opportunities for further investment in sports infrastructure, equipment, and facility enhancement. Overall, the findings affirm that the combined efforts of competent educators, supportive administrators, engaged communities, and adequate resources create a strong foundation for sustaining and strengthening sports development programs in schools.

Subproblem No. 2. Is there a significant difference in the assessments of the three groups of respondents on the above-mentioned variables?

Table 8

Comparative Assessment of Teacher Engagement

Criteria			F-statistics	p-value	Decision	Interpretation
Resources	Allocation	and	19.7356	5.2223e-06	Reject Ho	Significant
Facilities						

Curriculum Integration and Coaching Competency	4.9551	0.0144	Reject Ho	Significant
Administrative and Community Support	7.2429	1.4960e-05	Reject Ho	Significant

Table 8 presents the comparative assessment of the implementation of the sports development program based on the assessments of the three groups of respondents—supervisors, school administrators, and teachers. The results of the analysis of variance (ANOVA) reveal that there are significant differences in the respondents' assessments across all three dimensions of the sports development program, as evidenced by the computed F-statistics and corresponding p-values.

Specifically, Resource Allocation and Facilities obtained an F-statistic of 19.7356 with a p-value of 5.2223×10^{-6} , which is far below the 0.05 level of significance. Hence, the null hypothesis is rejected, indicating a significant difference in the assessments of the three respondent groups regarding the adequacy of financial resources, sports facilities, equipment, and resource management practices.

Similarly, Curriculum Integration and Coaching Competency recorded an F-statistic of 4.9551 and a p-value of 0.0144, which is likewise lower than the 0.05 significance level. Consequently, the null hypothesis is rejected, signifying a significant difference in how supervisors, school administrators, and teachers perceive the integration of sports into the curriculum and the competency of teachers and coaches in implementing sports programs.

Likewise, Administrative and Community Support yielded an F-statistic of 7.2429 with a p-value of 1.4960×10^{-5} , which also falls below the 0.05 level of significance. Thus, the null hypothesis is rejected, indicating a significant difference in the respondents' assessments of the

extent of administrative leadership and community participation in supporting sports development initiatives.

Among the three variables, Resource Allocation and Facilities obtained the highest computed F-statistic (19.7356), followed by Administrative and Community Support (7.2429) and Curriculum Integration and Coaching Competency (4.9551). All variables resulted in the rejection of the null hypothesis and were interpreted as Significant.

Overall, the findings indicate that the three groups of respondents do not share identical perceptions regarding the implementation of the sports development program. The significant differences may be attributed to the distinct roles, responsibilities, and experiences of supervisors, school administrators, and teachers in planning, managing, monitoring, and implementing sports-related activities. Supervisors and school administrators may assess implementation from a policy, leadership, and management perspective, whereas teachers evaluate it primarily through direct classroom instruction, coaching responsibilities, and day-to-day program implementation. These varying perspectives underscore the importance of strengthening collaboration, communication, and shared evaluation mechanisms among stakeholders to promote a more unified understanding of the program's implementation and to support continuous improvement in school sports development.

Table 8

Post-Hoc Tukey Pairwise Comparison of the Teachers' Engagement

Criteria	Pairwise Comparison	Tk-Test	p-value	Decision	Interpretation
Resources Allocation and Facilities	Supervisors - School	0.0000	0.8999	Accept	Not
	Administrators	7.6946	0.0010	Ho	Significant
	Supervisors - Teachers	7.6946	0.00101	Reject	Significant
	School Administrators - Teachers			Ho Reject Ho	Significant

Curriculum	Supervisors - School	1.1334	0.6924	Accept	Not
Integration	Administrators	7.6946	0.0010	Ho	Significant
and Coaching	Supervisors - Teachers	7.6946	0.0010	Reject	Significant
Competency	School Administrators - Teachers			Ho	Significant
				Reject	
				Ho	
Administrative	Supervisors - School	2.6138	0.1735	Accept	Not
and	Administrators	5.5198	0.0016	Ho	Significant
Community	Supervisors - Teachers	8.1337	0.0010	Reject	Significant
Support	School Administrators - Teachers			Ho	Significant
				Reject	
				Ho	

On the results of post hoc Tukey pairwise comparison of the Teacher Engagement:

The post-hoc Tukey pairwise comparison revealed no significant difference between the assessments of Supervisors and School Administrators ($T_k = 0.0000$, $p = 0.8999$). However, there were significant differences between Supervisors and Teachers ($T_k = 7.6946$, $p = 0.0010$) and School Administrators and Teachers ($T_k = 7.6946$, $p = 0.0010$).

The post-hoc Tukey pairwise comparison showed no significant difference between the assessments of Supervisors and School Administrators ($T_k = 1.1334$, $p = 0.6924$). Conversely, Supervisors and Teachers ($T_k = 7.6946$, $p = 0.0010$) and School Administrators and Teachers ($T_k = 7.6946$, $p = 0.0010$) exhibited significant differences.

The post-hoc Tukey pairwise comparison indicated no significant difference between the assessments of Supervisors and School Administrators ($T_k = 2.6138$, $p = 0.1735$). On the other hand, Supervisors and Teachers ($T_k = 5.5198$, $p = 0.0016$) and School Administrators and Teachers ($T_k = 8.1337$, $p = 0.0010$) showed significant differences.

The post-hoc Tukey pairwise comparison revealed a consistent pattern across all three dimensions of the sports development program, showing no significant difference between the assessments of supervisors and school administrators, while significant differences existed

between supervisors and teachers and between school administrators and teachers. This implies that supervisors and school administrators share similar perspectives because they perform closely related leadership, supervisory, and management functions in planning, monitoring, and evaluating sports development initiatives. In contrast, teachers assess the program from the standpoint of actual implementation, where they directly conduct instruction, coaching, and sports-related activities with learners. Their day-to-day experiences expose them to operational concerns such as resource availability, curriculum delivery, coaching demands, and stakeholder participation that may not be fully apparent to school leaders. The findings therefore indicate a perceptual gap between those responsible for program management and those directly implementing sports activities in schools. This suggests the need to strengthen communication, collaborative planning, and continuous feedback among supervisors, school administrators, and teachers to ensure that administrative decisions effectively address implementation realities. Ultimately, aligning the perspectives of all stakeholder groups can contribute to more responsive management practices and enhance the overall effectiveness and sustainability of the sports development program.

Also, Cipriano et al., (2024). This systematic literature review examines the dynamics of sustainable sports leadership and management in educational settings, focusing on the implementation of sports development programs in schools. Through a comprehensive analysis of existing research, key findings emerge, highlighting the critical role of effective leadership, resource allocation, student outcomes, and community engagement in shaping the success and sustainability of sports initiatives. Strong leadership is identified as essential for fostering a positive sports culture, strategic planning, and alignment with educational goals. Resource constraints, including limited funding and inadequate facilities, present persistent challenges that

impact the equitable access and effectiveness of sports programs. Empirical evidence demonstrates the positive impact of sports participation on academic achievement, social skills, and mental health outcomes among students. Collaborative partnerships with local organizations and stakeholders emerge as pivotal for leveraging additional resources, expertise, and support, enhancing the reach and impact of sports initiatives. These findings underscore the importance of holistic approaches to sports education and management, with implications for policymakers, educators, and practitioners seeking to promote student development and well-being through sports participation in schools.

Subproblem No. 3. What is the level of learners' engagement?

3.1 Behavioral Engagement (attendance and participation)

Table 8

Assessment on Behavioral Engagement (attendance and participation)

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. Learners regularly attend scheduled sports practices, training sessions, and competitions.	4.70	E	5.00	HE	4.94	HE	4.88	HE	6
2. Learners actively participate in drills, exercises, and sports-related activities during sessions.	4.70	E	5.00	HE	4.97	HE	4.89	HE	5
3. Learners demonstrate punctuality in attending sports practices and events.	3.90	ME	5.00	HE	4.87	HE	4.59	HE	8
4. Learners consistently complete assigned physical activities and training tasks.	4.90	ME	5.00	HE	4.98	HE	4.96	HE	1.5

5. Learners volunteer or show willingness to join school sports teams or events.	4.40	HE	5.00	HE	4.63	HE	4.68	HE	7
6. Learners actively follow instructions given by coaches or teachers during sports activities.	3.80	E	4.53	HE	4.98	HE	4.44	HE	9
107. Learners demonstrate discipline and adherence to sports rules and guidelines.	3.80	ME	4.47	HE	3.80	HE	4.02	HE	10
8. Learners sustain active involvement throughout the entire duration of sports sessions.	5.00	ME	5.00	HE	4.88	HE	4.96	HE	1.5
9 Learners participate in both individual and team-based sports activities.	5.00	E	5.00	HE	4.76	HE	4.92	HE	3.5
10 Learners show persistence in attending practices even during demanding or competitive seasons.	5.00	E	5.00	HE	4.75	HE	4.92	HE	3.5
Overall Weighted Mean	4.52	E	4.90	HE	4.76	HE	4.73	HE	
Option	Range	Interpretation							
5	4.20 – 5.00	Highly Engaged (HE)							
4	4.19 – 3.40	Engaged (E)							
3	2.60 – 3.39	Moderately Engaged (ME)							
2	1.80 – 2.59	Least Engaged (LE)							
1	1.00 – 1.70	Not Engaged (NE)							

On the data of behavioral engagement in terms of attendance and participation, learners are highly engaged as assessed by the school administrators and teachers, while supervisors assessed it as Engaged, with respective overall weighted means of 4.52, 4.90, and 4.76.

Taken collectively, based on the composite results arranged from highest to lowest, the foremost indicators are “Learners consistently complete assigned physical activities and training tasks” and “Learners sustain active involvement throughout the entire duration of sports

sessions,” which both ranked 1.5 with a composite weighted mean of 4.96. Sharing the 3.5 rank are “Learners participate in both individual and team-based sports activities” and “Learners show persistence in attending practices even during demanding or competitive seasons,” both obtaining a composite weighted mean of 4.92. This is followed by “Learners actively participate in drills, exercises, and sports-related activities during sessions,” which ranked 5th with a composite weighted mean of 4.89. “Learners regularly attend scheduled sports practices, training sessions, and competitions” ranked 6th with a composite weighted mean of 4.88. Next is “Learners volunteer or show willingness to join school sports teams or events,” which placed 7th with a composite weighted mean of 4.68. “Learners demonstrate punctuality in attending sports practices and events” ranked 8th with a composite weighted mean of 4.59, while “Learners actively follow instructions given by coaches or teachers during sports activities” ranked 9th with a composite weighted mean of 4.44. Lastly, “Learners demonstrate discipline and adherence to sports rules and guidelines” placed 10th with the lowest composite weighted mean of 4.02. Overall, the composite weighted mean of 4.73 is interpreted as Highly Engaged.

This signifies that learners exhibit a high level of behavioral engagement in school sports activities, particularly in consistently completing assigned tasks and maintaining active participation throughout training sessions. The findings indicate that learners are committed to participating in both individual and team sports and demonstrate persistence even during demanding or competitive seasons. The high ratings further suggest that sports development programs effectively encourage regular participation, active involvement, and sustained commitment among learners. However, the comparatively lower ratings for discipline, adherence to sports rules, and following coaches' instructions indicate areas where additional guidance and reinforcement may further improve learner behavior during sports activities. Overall, the results

affirm that the sports development program successfully promotes positive behavioral engagement, contributing to learners' physical development, teamwork, responsibility, and active participation in school sports.

Behavioral engagement, as defined by the Neuro Editorial Team (2024), refers to the active involvement of students in learning through attendance, effort, participation, persistence, rule adherence, and engagement in both classroom and extracurricular activities. It emphasizes the transformation of learners from passive observers into active participants, thereby improving academic performance and skill development. This type of engagement is influenced by factors such as student characteristics, teacher support, classroom environment, peer relationships, curriculum design, and instructional approaches. It is typically measured through observation, self-reporting, teacher evaluations, checklists, and technology-based monitoring tools to assess participation levels. Strategies to enhance behavioral engagement include creating positive learning environments, using active learning methods, setting clear expectations, integrating student interests, and applying gamification and technology. Ultimately, behavioral engagement contributes not only to academic success but also to learners' social-emotional development, self-esteem, and sense of belonging, making it essential for holistic student growth.

3.2 Emotional Engagement (interest and belonging)

Table 8

Assessment on Emotional Engagement (interest and belonging)

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. Learners feel excited and interested when participating in sports	4.80	HE	4.65	HE	5.00	HE	4.82	HE	3

activities.										
2. Learners express enjoyment during sports practices, games, and competitions.	5.00	HE	5.00	HE	4.60	HE	4.87	HE	1	
3. Learners feel a strong sense of belonging to their sports team or group.	5.00	HE	4.59	HE	4.53	HE	4.71	HE	4	
4. Learners feel accepted and respected by teammates during sports participation.	4.50	E	4.65	HE	4.47	HE	4.54	HE	9	
5. Learners feel encouraged and supported by coaches and teachers in sports activities	5.00	E	5.00	HE	4.59	HE	4.86	HE	2	
6. Learners develop pride in representing their school in sports events.	4.80	HE	4.53	HE	4.61	HE	4.65	HE	6	
7. Learners are motivated to continue joining sports programs because they feel included	4.60	HE	4.47	HE	4.84	HE	4.64	HE	7	
8. Learners show positive emotions when engaging in sports-related activities.	4.50	HE	4.76	HE	4.52	HE	4.59	HE	8	
9 Learners build meaningful friendships through participation in sports.	4.60	HE	5.00	HE	4.50	HE	4.70	HE	5	
10 Learners demonstrate confidence and emotional attachment to their sports involvement.	4.30	E	4.53	HE	4.62	HE	4.48	HE	10	
Overall Weighted Mean	4.71	HE	4.72	HE	4.63	HE	4.69	HE		

On the data of emotional engagement in terms of interest and belonging, learners are highly engaged as assessed by the supervisors, school administrators, and teachers, with

respective overall weighted means of 4.71, 4.72, and 4.63, all verbally interpreted as Highly Engaged (HE).

Collectively, based on the composite results arranged from highest to lowest, the foremost indicator is “Learners express enjoyment during sports practices, games, and competitions,” which ranked 1st with a composite weighted mean of 4.87. Closely following is “Learners feel encouraged and supported by coaches and teachers in sports activities,” which ranked 2nd with a composite weighted mean of 4.86. In 3rd place is “Learners feel excited and interested when participating in sports activities,” which obtained a composite weighted mean of 4.82. Next is “Learners feel a strong sense of belonging to their sports team or group,” which ranked 4th with a composite weighted mean of 4.71. “Learners build meaningful friendships through participation in sports” followed in 5th place with a composite weighted mean of 4.70. “Learners develop pride in representing their school in sports events” ranked 6th with a composite weighted mean of 4.65, while “Learners are motivated to continue joining sports programs because they feel included” placed 7th with a composite weighted mean of 4.64. “Learners show positive emotions when engaging in sports-related activities” ranked 8th with a composite weighted mean of 4.59, followed by “Learners feel accepted and respected by teammates during sports participation” in 9th place with a composite weighted mean of 4.54. Lastly, “Learners demonstrate confidence and emotional attachment to their sports involvement” obtained the 10th rank with a composite weighted mean of 4.48. Overall, the composite weighted mean of 4.69 is interpreted as Highly Engaged.

This signifies that learners exhibit a strong level of emotional engagement in sports activities, as reflected in their enjoyment, enthusiasm, and positive relationships with coaches, teachers, and peers. The highest-rated indicators suggest that learners derive satisfaction from

participating in sports and feel encouraged through the support they receive from school personnel, which enhances their interest and sustained involvement in sports programs. Likewise, the high ratings for belongingness, friendship, and school pride indicate that sports activities foster meaningful social connections and strengthen learners' sense of identity within their school community. Although all indicators were assessed as highly engaged, the comparatively lower ratings for confidence, emotional attachment, and feelings of acceptance suggest that schools may further strengthen initiatives that promote self-confidence, inclusivity, and positive peer interactions among learners. Overall, the findings affirm that emotional engagement serves as a key factor in sustaining learners' participation, motivation, and commitment to school sports development programs while contributing to their holistic personal and social development.

3.3 Cognitive Engagement (strategic thinking and goal setting)

Table 8

Assessment on Cognitive Engagement (strategic thinking and goal setting)

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. Learners set personal goals to improve their sports skills and performance.	4.60	HE	4.82	HE	4.32	HE	4.58	HE	4
2. Learners plan strategies to enhance their strengths and address their weaknesses in sports.	4.50	HE	4.71	HE	4.03	E	4.41	HE	6
3. Learners reflect on their performance after practices, games, or competitions.	4.40	E	4.76	HE	4.30	HE	4.49	HE	5
4. Learners apply feedback from coaches or teachers to improve future	4.20	E	5.00	HE	3.98	E	4.39	HE	7

performance.										
5.Learners demonstrate understanding of game strategies, rules, and techniques.	4.50	E	5.00	HE	4.33	HE	4.61	HE	2	
6.Learners think critically about how to contribute effectively to team success.	4.20	HE	4.53	HE	4.02	E	4.25	HE	10	
7.Learners monitor their progress toward achieving sports-related goals.	4.50	HE	4.47	HE	4.21	HE	4.39	HE	7	
8. Learners show initiative in learning new techniques or tactics in sports.	3.90	HE	5.00	HE	4.04	E	4.31	HE	9	
9 Learners analyze their mistakes and identify ways to improve their performance.	4.90	E	5.00	HE	3.90	E	4.60	HE	3	
10 Learners demonstrate persistence in mastering challenging sports skills and strategies.	4.90	E	5.00	HE	3.95	EH	4.62	HE	1	
Overall Weighted Mean	4.46	HE	4.83	HE	4.11	HE	4.47	HE		

On the data of cognitive engagement in terms of strategic thinking and goal setting, learners are highly engaged as assessed by the supervisors and school administrators, while teachers assessed it as Engaged, with respective overall weighted means of 4.46, 4.83, and 4.11.

Taken collectively, based on the composite results arranged from highest to lowest, the foremost indicator is “Learners demonstrate persistence in mastering challenging sports skills and strategies,” which ranked 1st with a composite weighted mean of 4.62. This is followed by “Learners demonstrate understanding of game strategies, rules, and techniques,” which ranked 2nd with a composite weighted mean of 4.61. In 3rd place is “Learners analyze their mistakes and identify ways to improve their performance,” with a composite weighted mean of 4.60. Next is “Learners set personal goals to improve their sports skills and performance,” which ranked 4th

with a composite weighted mean of 4.58. “Learners reflect on their performance after practices, games, or competitions” followed in 5th place with a composite weighted mean of 4.49. “Learners plan strategies to enhance their strengths and address their weaknesses in sports” ranked 6th with a composite weighted mean of 4.41. Sharing the 7th rank are “Learners apply feedback from coaches or teachers to improve future performance” and “Learners monitor their progress toward achieving sports-related goals,” both obtaining a composite weighted mean of 4.39. “Learners show initiative in learning new techniques or tactics in sports” ranked 9th with a composite weighted mean of 4.31, while “Learners think critically about how to contribute effectively to team success” obtained the 10th rank with a composite weighted mean of 4.25. Overall, the composite weighted mean of 4.47 is interpreted as Highly Engaged.

This signifies that learners exhibit a high level of cognitive engagement in sports activities through goal setting, strategic thinking, and continuous efforts to improve their performance. The highest-rated indicators suggest that learners demonstrate perseverance in mastering challenging skills and possess a strong understanding of game strategies, rules, and techniques, reflecting their commitment to skill development and athletic excellence. Moreover, learners' ability to analyze mistakes and establish personal performance goals indicates that sports participation promotes reflective thinking and self-directed learning. Although all indicators were assessed as highly engaged, the comparatively lower ratings for critical thinking related to team success, learning new techniques, and applying feedback suggest opportunities to further strengthen higher-order thinking and decision-making skills during sports training. Overall, the findings affirm that cognitive engagement is a vital component of sports

development, enabling learners to become more reflective, strategic, and self-regulated participants in sports while supporting their overall academic and personal growth.

Cognitive engagement, as defined by NeuroLaunch (2025), refers to the active investment of mental effort, attention, and curiosity in learning, problem-solving, and decision-making beyond mere participation. It involves deep processing of information through analysis, reflection, and critical thinking rather than passive reception of content. As a result, it strengthens learners' mental models, enhances problem-solving skills, and supports the application of knowledge in new and complex situations. It is fostered through active learning strategies, social interaction, self-regulated learning, goal-setting, task management, and reflective practices. Measurement of cognitive engagement is typically conducted through self-reports, observations, interviews, physiological data, and teacher assessments to capture its multidimensional nature. Ultimately, cognitive engagement enhances retention, creativity, and critical thinking while promoting lifelong learning, adaptability, and effective decision-making in academic and real-world contexts.

Table 8

Assessment Summary of the Level of Learners' Engagement

Indicators		Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
		WM	VI	WM	VI	WM	VI	WM	VI	
Behavioral (Attendance and Participation)	Engagement	4.52	E	4.90	HE	4.76	HE	4.75	HE	1
Emotional (Interest and Belonging)	Engagement	4.71	HE	4.72	HE	4.63	HE	4.68	HE	2
Cognitive (Strategic Thinking)	Engagement	4.46	HE	4.83	HE	4.11	E	4.48	HE	3

Goal Setting)									
Overall Weighted Mean	4.56	HE	4.82	HE	4.50	HE	63	HE	

On the summary data of learners' engagement in the implementation of the sports development program, the overall level of engagement is Highly Engaged as assessed by the supervisors, school administrators, and teachers, with respective overall weighted means of 4.56, 4.82, and 4.50.

Collectively, based on the composite results arranged from highest to lowest, Behavioral Engagement (Attendance and Participation) emerged as the highest-rated dimension, ranking 1st with a composite weighted mean of 4.75, interpreted as Highly Engaged. This was followed by Emotional Engagement (Interest and Belonging), which ranked 2nd with a composite weighted mean of 4.68, also interpreted as Highly Engaged. Lastly, Cognitive Engagement (Strategic Thinking and Goal Setting) ranked 3rd with a composite weighted mean of 4.48, likewise interpreted as Highly Engaged.

This means that learners were highly engaged in the implementation of the sports development program as evaluated by the supervisors, school administrators, and teachers supported by the overall composite weighted mean of 4.64.

This signifies that learners demonstrate a high level of engagement across the behavioral, emotional, and cognitive dimensions of the sports development program. The highest rating for behavioral engagement indicates that learners consistently attend, actively participate, and remain involved in sports-related activities, reflecting the effectiveness of the program in encouraging active participation. Likewise, the high ratings for emotional and cognitive engagement suggest that learners develop positive attitudes toward sports, experience a strong sense of belonging, and engage in strategic thinking and goal setting to improve their

performance. Although cognitive engagement received the lowest rank among the three dimensions, it remained within the Highly Engaged category, indicating that learners continue to demonstrate reflective thinking, problem-solving, and self-improvement behaviors. Overall, the findings affirm that the sports development program effectively promotes holistic learner engagement by fostering active participation, emotional commitment, and cognitive involvement, thereby supporting students' physical, social, and personal development through meaningful sports experiences.

Moreover, Hoa (2021) aimed to develop a reliable and comprehensive scale to assess students' engagement in physical education (PE) classes using traditional sports science methods such as document analysis, expert interviews, and Cronbach's Alpha testing. Specifically, the study produced a 19-item questionnaire covering intellectual, cognitive, and active learning engagement, and the findings revealed that although students recognized the importance of PE, their involvement in intellectual and active learning aspects remained limited. Similarly, Bhimavarapu (2025) emphasized that sports participation provides children with opportunities for social development beyond physical skills, as structured sports environments promote communication, teamwork, leadership, and conflict resolution through guided participation.

Subproblem No. 4. Is there a significant relationship between the implementation of sports development programs and learners' engagement?

Table 8

Correlation between the implementation of sports development programs and learners' engagement

Indicators	R-value	VI	T-Statistics	p.value	Decision	Interpretation
Behavioral Engagement	0.5178	MC	1.7118	0.1253	Accept Ho	Not Significant

(Attendance and Participation)						
Emotional Engagement (Interest and Belonging)"	0.4245	MC	1.3259	0.2215	Accept Ho	Not Significant
Cognitive Engagement (Strategic Thinking and Goal Setting)	0.390	WC	1.200	0.260	Accept Ho	Not Significant

Legend:

Range	Verbal Interpretation	Symbol
1.00	Perfect Correlation	PC
0.80 – 0.99	Very Strong Correlation	VSC
0.60 – 0.79	Strong Correlation	SC
0.40 – 0.59	Moderate Correlation	MC
0.20 – 0.39	Weak Correlation	WC
0.01 – 0.19	Negligible Correlation	NC

The findings presented in Table 8 indicate that the implementation of sports development programs has positive but statistically insignificant relationships with the three dimensions of learners' engagement. Specifically, behavioral engagement obtained the highest correlation coefficient ($r = 0.5178$), indicating a moderate positive correlation, while emotional engagement ($r = 0.4245$) also demonstrated a moderate positive correlation, and cognitive engagement ($r = 0.390$) showed a weak positive correlation. However, all computed p-values (0.1253, 0.2215, and 0.260, respectively) exceeded the 0.05 level of significance, leading to the acceptance of the null hypothesis that there is no significant relationship between the implementation of sports development programs and learners' engagement across these dimensions.

These findings imply that although schools may have effectively implemented sports development initiatives, such programs alone may not be sufficient to produce measurable improvements in learners' behavioral, emotional, and cognitive engagement. The moderate positive correlation observed in behavioral and emotional engagement suggests that participation

in sports may encourage regular attendance, active participation, stronger school attachment, and a greater sense of belonging; however, these influences are not strong enough to establish a statistically significant association. Likewise, the weak relationship with cognitive engagement indicates that while sports activities may contribute to learners' discipline, perseverance, and goal-setting skills, academic engagement is likely influenced more substantially by instructional practices, classroom climate, learner motivation, parental support, and other school-related factors. The absence of statistically significant relationships further suggests that learner engagement is a multifaceted construct shaped by numerous interacting variables beyond sports participation, emphasizing that sports programs should be integrated with academic, psychosocial, and student support interventions to maximize their educational impact. Overall, the results highlight the importance of adopting a holistic approach to learner development, where sports development programs complement rather than independently determine learners' engagement within the school environment.

Furthermore, international research supports these perspectives by emphasizing student voice and participatory decision-making, as Pardali et al. (2025) found that engagement increases when learners are actively involved in sports-related decisions. Likewise, Li et al. (2021) reported that integrating physical activity into daily routines promotes sustained participation and reduces sedentary behavior, highlighting that engagement depends on meaningful interaction rather than mere participation. Across various contexts, sports participation has been linked to academic, psychological, and social benefits, with local studies showing improvements in discipline, resilience, and motivation among student-athletes, although these outcomes depend on adequate institutional support (Solano et al., 2025; Cipriano et al., 2024). Conversely, insufficient academic support may increase stress among student-athletes.

Subproblem No. 5. What are the challenges encountered by the respondents relative to the implementation of the sports development program?

Table 8

Challenges Encountered Relative to the implementation of the sports development program

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. Insufficient budget allocation for sports equipment, uniforms, and facility improvement.	3.50	ME	2.47	LE	2.95	ME	2.70	LE	1.5
2. Limited or poorly maintained sports facilities that restrict training opportunities.	3.50	ME	2.18	LE	2.67	ME	2.39	LE	6
3. Shortage of appropriate sports equipment for different grade levels or sports events.	3.50	ME	1.88	LE	2.73	ME	2.27	LE	9.5
4. Unequal distribution of resources among teams, programs, or student groups.	3.40	ME	1.35	VLE	2.42	LE	2.27	VLE	9.5
5. Lack of secure storage and maintenance systems leading to equipment damage or loss.	3.10	LE	1.53	VLE	2.18	LE	2.35	LE	8
6. Weak alignment between sports activities and the Physical Education curriculum.	2.80	VLE	1.59	VLE	2.41	LE	2.55	LE	3
7. Limited training or professional development opportunities for teachers acting as coaches.	2.60	LE	2.00	LE	2.45	LE	2.70	ME	1.5
8. Inadequate knowledge of modern coaching techniques and sports	2.70	LE	2.53	LE	2.43	LE	2.51	VLE	4

science principles.										
9	Overloaded teaching schedules that reduce time for structured sports instruction.	3.10	ME	2.35	LE	2.65	ME	2.40	LE	5
10	Lack of systematic monitoring and evaluation of coaching effectiveness	3.60	LE	1.82	LE	2.10	LE	2.13	VLE	13
11	Limited prioritization of sports programs in school planning and policy implementation.	2.40	LE	2.35	LE	2.43	LE	2.28	LE	7
12	Insufficient administrative supervision and coordination of sports activities.	3.10	LE	1.00	VLE	2.29	LE	2.09	LE	14.5
13	Weak parent and community involvement in supporting sports initiatives.	2.60	ME	2.00	LE	2.24	LE	2.25	LE	11.5
14	Limited partnerships with local government units or sports organizations.	1.70	ME	2.00	LE	2.58	LE	2.09	LE	14.5
15	Inconsistent communication between the school and stakeholders regarding sports programs.	2.50	ME	2.00	LE	2.24	LE	2.25	LE	11.5
Overall Weighted Mean		2.80	LE	1.94	LE	2.45	LE	2.35	LE	
Option	Range	Interpretation								
5	4.20 – 5.00	Highly Encountered (HE)								
4	4.19 – 3.40	Evident (E)								
3	2.60 – 3.39	Moderately Encountered (ME)								
2	1.80 – 2.59	Least Encountered (LE)								
1	1.00 – 1.70	Not Encountered (NE)								

On the data of the challenges encountered relative to the implementation of the sports development program, the overall assessment indicates that the identified challenges are Least Encountered as evaluated by the supervisors, school administrators, and teachers, with respective

overall weighted means of 2.80, 1.94, and 2.45, while the overall composite weighted mean of 2.35 is likewise interpreted as Least Encountered (LE).

Collectively, based on the composite results arranged from highest to lowest, the foremost challenges are “Insufficient budget allocation for sports equipment, uniforms, and facility improvement” and “Limited training or professional development opportunities for teachers acting as coaches,” which both ranked 1.5 with a composite weighted mean of 2.70. This was followed by “Weak alignment between sports activities and the Physical Education curriculum,” which ranked 3rd with a composite weighted mean of 2.55. “Inadequate knowledge of modern coaching techniques and sports science principles” ranked 4th with a composite weighted mean of 2.51, while “Overloaded teaching schedules that reduce time for structured sports instruction” placed 5th with a composite weighted mean of 2.40. “Limited or poorly maintained sports facilities that restrict training opportunities” ranked 6th with a composite weighted mean of 2.39, followed by “Limited prioritization of sports programs in school planning and policy implementation” in 7th place with a composite weighted mean of 2.28. “Lack of secure storage and maintenance systems leading to equipment damage or loss” ranked 8th with a composite weighted mean of 2.35. Sharing the 9.5th rank is “Shortage of appropriate sports equipment for different grade levels or sports events” and “Unequal distribution of resources among teams, programs, or student groups,” both obtaining a composite weighted mean of 2.27. Sharing the 11.5th rank are “Weak parent and community involvement in supporting sports initiatives” and “Inconsistent communication between the school and stakeholders regarding sports programs,” both with a composite weighted mean of 2.25. “Lack of systematic monitoring and evaluation of coaching effectiveness” ranked 13th with a composite weighted mean of 2.13. Finally, “Insufficient administrative supervision and coordination of

sports activities” and “Limited partnerships with local government units or sports organizations” shared the 14.5th rank with a composite weighted mean of 2.09.

This shows that the supervisors, school administrators, and teachers have the least encountered challenges relative to the implementation of the sports development program, as indicated by the overall composite weighted mean of 2.35.

This signifies that the implementation of the sports development program generally encounters only minimal challenges across the participating schools. Although insufficient budget allocation and limited professional development opportunities emerged as the most frequently encountered concerns, these were still assessed within the Least Encountered category, indicating that they do not substantially impede program implementation. Likewise, the low ratings across the remaining indicators suggest that issues related to curriculum alignment, coaching competency, facilities, administrative support, and stakeholder involvement are relatively well managed. Nevertheless, the presence of these concerns, even at a low level, highlights opportunities for continuous improvement through increased investment in sports resources, expanded coaching development programs, and strengthened collaboration among schools, communities, and external partners. Overall, the findings affirm that the sports development program is being implemented effectively, with only minimal operational challenges that can be addressed through sustained planning, resource support, and capacity-building initiatives.

Subproblem No. 6. Based on the findings, what intervention program may be proposed?

Based on the findings, a proposed intervention program was crafted and developed, as it provides a structured response to the identified strengths, gaps, and challenges in the

implementation of the sports development program. It translates research findings into practical strategies that can guide schools in improving sports planning, implementation, and evaluation. The program also strengthens learners' engagement by addressing behavioral, emotional, and cognitive dimensions of participation in sports activities. In addition, it bridges the gap between theory and practice by converting empirical data into actionable school-based interventions. It supports policy enhancement by offering evidence-based recommendations for administrators, teachers, and coaches. Moreover, it promotes stronger collaboration among stakeholders, including school personnel and the community, to sustain sports development initiatives. Ultimately, the intervention program contributes to continuous improvement in school sports programs, leading to more effective and meaningful learner participation.

Subproblem No. 7. How acceptable is the proposed intervention program?

Table 8

Acceptability of the Proposed Intervention Program

Indicators	Supervisors		School Administrators		Teachers		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. The Proposed Intervention Program offers a complete and accurate presentation of relevant facts.	4.50	A	3.59	A	4.77	HA	4.29	A	4
2. It is practical and feasible for adoption and implementation in public elementary schools.	4.60	A	3.76	A	4.48	HA	4.28	A	5
3. The program will benefit schools by identifying weaknesses in the implementation of the sports development program and learners'	4.90	HA	3.82	A	4.98	HA	4.57	HA	1

engagement within public elementary schools in District III of the Division of Quezon City.										
4. It will provide guidance and support in developing and improving policy guidelines.	4.70	HA	4.00	A	4.78	HA	4.49	HA	3	
5. It provides thorough and useful knowledge, especially in carrying out corrective actions.	4.70	A	4.24	HA	4.63	HA	4.52	HA	2	
Overall Weighted Mean	4.68	HA	3.88	A	4.73	HA	4.43	HA		

Option	Range	Interpretation
5	4.20 – 5.00	Highly Acceptable (HA)
4	3.40 – 4.19	Acceptable (A)
3	2.60 – 3.39	Moderately Acceptable (MA)
2	1.80 – 2.59	Least Acceptable (LA)
1	1.00 – 1.79	Not Acceptable (NA)

On the data of the acceptability of the proposed intervention program relative to the implementation of the sports development program, the overall assessment is Highly Acceptable as evaluated by the supervisors and teachers, while school administrators assessed it as Acceptable, with respective overall weighted means of 4.68, 3.88, and 4.73.

Collectively, based on the composite results arranged from highest to lowest, the most highly regarded aspect is “The program will benefit schools by identifying weaknesses in the implementation of the sports development program and learners’ engagement within public elementary schools in District III of the Division of Quezon City,” which ranked 1st with a composite weighted mean of 4.57, interpreted as Highly Acceptable. This was followed by “It provides thorough and useful knowledge, especially in carrying out corrective actions,” which ranked 2nd with a composite weighted mean of 4.52, also interpreted as Highly Acceptable. In 3rd place is “It will provide guidance and support in developing and improving policy

guidelines,” with a composite weighted mean of 4.49, interpreted as Highly Acceptable. “The Proposed Intervention Program offers a complete and accurate presentation of relevant facts” ranked 4th with a composite weighted mean of 4.29, while “It is practical and feasible for adoption and implementation in public elementary schools” ranked 5th with a composite weighted mean of 4.28. Both indicators were interpreted as Highly Acceptable.

This indicates that the proposed intervention program was highly acceptable, as evaluated by the supervisors, school heads, and teachers, with an overall composite weighted mean of 4.43.

This signifies that the proposed intervention program is widely accepted by the respondents as an effective and relevant initiative for enhancing the implementation of the sports development program. The highest ratings indicate that stakeholders recognize the program's potential to identify implementation gaps, improve learner engagement, and provide meaningful support for school improvement efforts. Likewise, the high acceptability ratings for policy guidance, corrective actions, and the comprehensiveness of the program demonstrate stakeholders' confidence in its capacity to strengthen sports program implementation in public elementary schools. Although the practicality and feasibility of the program received the lowest rank, these aspects were still assessed as Highly Acceptable, suggesting that respondents believe the intervention can be successfully implemented with appropriate institutional support. Overall, the findings affirm that the proposed intervention program is a credible, practical, and valuable framework for addressing identified concerns and promoting continuous improvement in sports development and learner engagement within the Division of Quezon City.

CHAPTER 5

Summary of Findings, Conclusions, and Recommendations

Summary

The salient findings of the study are as follows:

1. On the assessment of the Implementation of the Sports Development Program

The sports development program was highly evident as assessed by the supervisors, school heads, and teachers, with an overall composite weighted mean of 4.62.

2. On the Comparative Assessment Relative to Implementation of the Sports Development Program.

Among the three variables, Resource Allocation and Facilities obtained the highest computed F-statistic (19.7356), followed by Administrative and Community Support (7.2429) and Curriculum Integration and Coaching Competency (4.9551). All variables resulted in the rejection of the null hypothesis and were interpreted as Significant.

3. On the assessment of the level of learners' engagement.

Learners' engagement in the implementation of the sports development program was highly evident as evaluated by the supervisors, school administrators, and teachers, with an overall composite weighted mean of 4.64.

4. On the correlation between the implementation of sports development programs and learners' engagement.

The implementation of sports development programs has positive but statistically insignificant relationships with the three dimensions of learners' engagement. Specifically, behavioral engagement obtained the highest correlation coefficient ($r = 0.5178$), indicating a moderate positive correlation, while emotional engagement ($r = 0.4245$) also demonstrated a

moderate positive correlation, and cognitive engagement ($r = 0.390$) showed a weak positive correlation. However, all computed p-values (0.1253, 0.2215, and 0.260, respectively) exceeded the 0.05 level of significance, leading to the acceptance of the null hypothesis.

5. On the challenges encountered by the respondents relative to the implementation of the sports development program.

The three groups of respondents have the least encountered challenges relative to the implementation of the sports development program, with an overall composite weighted mean of 2.35.

6. On the proposed intervention program.

Based on the findings, a proposed intervention program was developed to address the identified strengths, gaps, and challenges in the implementation of the sports development program. The program translates research findings into practical strategies that can improve sports planning, implementation, and evaluation in schools. It also enhances learners' engagement by focusing on behavioral, emotional, and cognitive dimensions of sports participation. Furthermore, the intervention bridges theory and practice by transforming empirical findings into actionable school-based initiatives. It likewise supports policy enhancement, strengthens stakeholder collaboration, and contributes to the continuous improvement of school sports programs for more effective learner participation.

7. On the acceptability of the proposed intervention program.

The proposed intervention program was highly acceptable, as evaluated by the supervisors, school heads, and teachers, with an overall composite weighted mean of 4.43.

Conclusions

Based on the findings of the study, the following conclusions were formulated.

1. The sports development program have established effective systems and practices that support the successful implementation of sports development initiatives.
2. The three groups of respondents possesses varying perspectives and experiences regarding the implementation of the sports development program.
3. Learners demonstrate a high level of engagement in the sports development program.
4. The implementation of the sports development program does not significantly influence learners' engagement.
5. Issues related to budget allocation and professional development were the most frequently identified, they do not substantially hinder the overall effectiveness of the program..
6. The proposed intervention program serves as a relevant and responsive measure that addresses the identified needs and supports the continuous enhancement of sports development initiatives and learner engagement in schools.
7. The proposed intervention program is strongly accepted by the respondents, signifying its relevance, applicability, and potential effectiveness in improving the implementation of sports development programs in public elementary schools.

Recommendations

In light of the conclusions, the following are strongly recommended.

1. School administrators, teachers, and stakeholders may adopt and institutionalize the proposed intervention program as part of continuous improvement efforts in sports development implementation.

2. School administrators may sustain and further strengthen the effective implementation of the sports development program by continuously supporting school-based sports initiatives and ensuring consistent program delivery.

3. Supervisors, school heads, and teachers are encouraged to establish regular alignment activities such as consultations and coordination meetings to harmonize their assessments and improve shared understanding of program implementation.

4. Teachers and coaches may continuously enhance strategies that will further sustain and deepen learners' engagement in sports activities through varied, inclusive, and motivating practices.

5. School leaders and program implementers may review and strengthen other possible contributing factors that may influence learners' engagement beyond current program implementation practices.

6. School administrators and program coordinators are may advised to maintain current practices in managing challenges while also implementing proactive measures to prevent potential issues in sports program implementation.

7. Education policymakers and school heads are encouraged to support the full implementation of the intervention program and regularly evaluate its effectiveness to ensure sustained improvement in sports development program

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