

School-based management practices and utilization of special education fund

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Abstract

This study assessed the School-Based Management (SBM) practices and the utilization of Special Education Funds (SEF) within the Department of Education, Quezon Division, focusing on the Tiaong I District in the Philippines. Guided by Musgrave's (1959) theory of public finance and Dalton's (1922) principle of maximum social advantage, the research employed a mixed-method explanatory sequential design. Data were gathered from 232 respondents using purposive sampling, with a validated questionnaire as the primary instrument. Quantitative analysis utilized Kruskal-Wallis to examine significant differences in SEF utilization across respondent profiles, and thematic analysis was conducted to identify challenges. Results revealed no statistically significant differences in SEF utilization across sex, age, educational attainment, or position ($p > 0.05$). Thematic analysis highlighted challenges such as underutilization in areas like the purchase of books and periodicals. Based on the findings, it is recommended that the Department of Education continue to monitor and optimize the allocation and utilization of SEF to ensure equitable resource distribution across various categories, with particular attention to underutilized areas such as the purchase of books and periodicals. This paper uniquely contributes to the field by providing a detailed examination of SEF utilization at the local level in the Philippines, offering insights into resource allocation consistency and identifying specific demographic needs for improved educational outcomes.

Keywords: *resource allocation, educational equity, public school funding, stakeholder engagement*

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1. Introduction

Effective school financing is pivotal for enhancing educational outcomes, as evidenced by the significant impact of Special Education Funds (SEF) on school management and student achievement. Enhancing educational outcomes, despite the different learning preferences of the students (Gonzales & Villacruel, 2024), may substantially come from improving school infrastructure, supporting educational research, and enriching academic resources (Petrick, 2015; Rico, 2021). These investments enable schools to address operational needs, facilitate infrastructure development, and provide essential materials, thereby fostering a conducive learning environment. Research indicates that the effective management of SEF is closely associated with improvements in educational practices and student performance (Mallari, 2017).

Globally, effective school financing plays a pivotal role in enhancing educational outcomes. Well-allocated resources contribute to the development of school infrastructure, the enrichment of academic programs, and the support of innovative educational practices. According to the Organization for Economic Cooperation and Development (OECD), efficient use of educational funds correlates with improvements in administrative and academic performance, as well as overall student achievement (OECD, 2017). Countries with well-managed education systems tend to allocate their resources in a way that directly impacts both school management and student performance, emphasizing the crucial role of school financing policies in achieving educational goals (Azur & Ricafort, 2023). Despite these global efforts, gaps in educational resource management still exist, especially in decentralized systems where local governments are responsible for fund allocation (Ke & Bao, 2022). Ineffective fund utilization in these contexts can lead to disparities in educational quality (Baker, 2021).

At the regional level, many Southeast Asian countries, including the Philippines, are enhancing their educational systems by improving financial resource management. Local governments, under decentralization policies, have taken on the responsibility of funding schools to address specific needs and operational challenges, particularly through Special Education Funds (SEF). These funds support essential components of education, such as infrastructure, academic resources, and research, thereby fostering conducive learning environments (Mallari, 2017; Rico, 2021). However, despite the potential benefits, SEF utilization remains inconsistent across local government units (LGUs) in Southeast Asia, leading to disparities in educational outcomes within the region (Lee, 2016).

In the Philippines, the SEF managed at the local level, is essential for funding public education. As outlined in the Local Government Code (RA No. 7160) and implemented through DepEd Order No. 10, S. 2017, the SEF provides resources for the construction and maintenance of school facilities, the acquisition of academic materials, and the promotion of sports and physical education (DepEd, 2017). However, despite the clear guidelines, disparities in SEF collection and utilization exist among local government units (LGUs), influenced by factors such as local property taxes and administrative capacity (Petrick, 2015). These discrepancies often result in underfunding of essential school programs, limiting the ability to address critical needs such as the provision of learning materials and the improvement of school infrastructure (Saguin & Ramesh, 2020).

At the local level, particularly in Tiaong I District in Quezon Province, SEF utilization faces several challenges. Procedural delays, approval inefficiencies, and inconsistent fund allocation have hindered the effective execution of educational projects. While funds are available, these obstacles have contributed to operational inefficiencies, reflected in suboptimal student outcomes (Joint Circular No. 1, S. 2017). Additionally, the underutilization of SEF in areas such as book acquisition and infrastructure development further exacerbates the problem. Despite the importance of school-based management in improving educational outcomes, existing research on SEF allocation often overlooks localized challenges that impact the equitable distribution and effective use of these funds (San Antonio et al., 2019).

This study seeks to assess the utilization of SEF within the DepEd Quezon Division, particularly in the Tiaong I District. It aims to evaluate the extent to which SEF has been used to support school management and educational outcomes, identify the obstacles to effective utilization, and provide recommendations for optimizing SEF allocation and implementation.

2. Literature Review

2.1. Special Education Fund

The construction and repair of school buildings is a critical area of SEF utilization. Investing in the physical infrastructure of schools has long-term benefits for educational outcomes. Adequate and well-maintained school buildings contribute to a more positive learning environment, which can enhance student engagement and achievement. Research indicates that schools with improved facilities see increased student attendance and reduced dropout rates. Moreover, well-constructed and properly maintained buildings support a range

of educational activities, from classroom instruction to extracurricular programs. Recent studies, including those by Burson et al. (2022), emphasize that targeted investments in school infrastructure not only improve the physical learning environment but also contribute to the overall effectiveness of educational programs.

Facilities and equipment funded through SEF are crucial for supporting a wide range of educational activities. This includes the provision of technology, laboratory equipment, and other resources necessary for effective teaching and learning. The availability of up-to-date equipment and facilities enhances the educational experience by providing students with access to modern learning tools and resources. Research by Barrett et al. (2020) and Zakaria et al. (2022) underscores the importance of investing in educational technology and equipment, noting that these resources facilitate more interactive and engaging learning experiences. Furthermore, well-equipped schools are better positioned to offer diverse programs and activities that cater to various student needs and interests, thereby supporting a more inclusive educational environment.

Utilizing SEF for educational research is pivotal for fostering academic development and innovation. Funding research initiatives allow schools to explore new teaching methods, evaluate educational practices, and develop strategies for improving student outcomes. Educational research funded by SEF can lead to significant advancements in pedagogy and curriculum design. Research-driven insights contribute to evidence-based practices, which can be implemented to address specific educational challenges and improve overall instructional quality (Diery et al., 2021). Additionally, investing in research helps schools stay informed about the latest educational trends and best practices, ensuring that they remain responsive to evolving educational needs.

The purchase of books and periodicals through SEF is essential for providing students with access to high-quality learning materials. Books and periodicals support literacy development and provide valuable resources for academic study. Recent literature indicates that adequate funding for educational materials directly impacts student learning and achievement. Mertens and Wilson (2018) emphasize that well-stocked libraries and updated learning resources are critical for fostering a strong academic foundation. Furthermore, investing in a diverse range of reading materials supports differentiated instruction and accommodates various learning styles, which can enhance student engagement and comprehension.

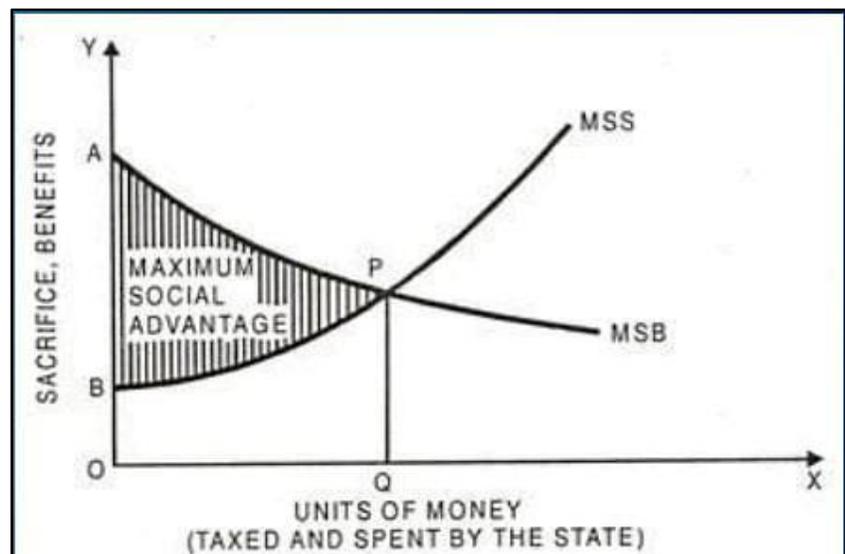
Sports development funded by SEF plays a crucial role in promoting physical education and extracurricular activities. Investment in sports programs not only supports students' physical health but also contributes to their overall development. Engaging in sports helps students develop teamwork, leadership, and discipline, which are valuable life skills. Recent research by Wang et al. (2024) highlights the benefits of sports programs in enhancing student well-being and academic performance. Schools with robust sports programs often see increased student motivation and improved social interactions, creating a more positive and supportive school environment.

The effective utilization of SEF across these variables has profound implications for educational quality and student outcomes. Proper allocation of funds to operation and maintenance ensures that schools are well-equipped to provide a conducive learning environment. Investments in construction and repair contribute to the long-term sustainability of school facilities while funding for facilities and equipment supports modern and effective teaching practices. Educational research funded through SEF drives innovation and improvement in instructional methods, and the purchase of books and periodicals enhances the academic resources available to students. Additionally, investment in sports development promotes physical well-being and enriches the overall educational experience.

2.2. Theoretical framework

Figure 1

The Theory of Public Finance
(Musgrave, 1959)



Anchored on Musgrave's (1959) Theory of Public Finance, the study explores the government's role in income redistribution through direct monetary means, such as progressive taxation, and non-monetary forms, such as providing goods that meet merit wants. Musgrave highlighted three primary roles of government spending: allocating public goods, redistributing income, and stabilizing the economy. The provision of public goods aimed to meet societal needs and merit-based demands. In later works (1969), Musgrave noted that public provision was necessary for societal wants due to market failures in allocating nonrival and nonexcludable goods. "Merit wants," however, refer to essential individual needs that should not rely solely on market mechanisms. Education, healthcare, and basic nutrition are examples where the government can ensure minimum standards through non-monetary transfers, particularly benefiting the poor.

Another significant theory that supported this study is The Principle of Maximum Social Advantage by Dalton (1922). This principle governs both aspects of public finance: revenue collection and public expenditure, both of which should work in tandem to maximize overall societal welfare. According to this principle, public authorities should collect revenue and allocate it in a manner that maximizes the well-being of society. While taxation creates disutility for taxpayers, public spending generates utility. Thus, the state should balance revenue and expenditure to ensure that utility is maximized while disutility is minimized. In other words, state finances should be managed to achieve the maximum net benefit for society as a whole.

3. Methodology

This study utilized a mixed-method approach, specifically an explanatory sequential design. Initially, quantitative data were collected through a structured survey focusing on demographic profiles and the utilization of the Special Education Fund (SEF) in various educational domains. Subsequently, qualitative data were gathered through interviews to provide deeper insights into the challenges faced in SEF utilization (Creswell & Creswell, 2018). This approach allowed for a comprehensive understanding of both statistical trends and individual experiences.

The participants included elementary teachers, school heads, non-teaching personnel, and public school district supervisors from DepEd-Quezon Tiaong I District, totaling 232 individuals. Purposive sampling was employed to focus on those directly involved with SEF-

utilizing schools within the district. The sample includes representatives from each of the 13 schools in the district. This technique ensures that the sample is relevant to the research objectives, though it may not fully represent the broader population.

Data were collected using a self-constructed survey distributed via Google Forms, which included questions on demographic details and SEF utilization. The survey underwent expert review and pilot testing to ensure validity and reliability, achieving a Cronbach's alpha of 0.970, indicating high internal consistency. Additionally, a personal interview guide was used to explore challenges in SEF utilization. Ethical considerations were addressed by informing participants about the study's objectives, ensuring confidentiality, and obtaining consent for participation.

Research procedures included obtaining approval from relevant authorities, distributing surveys, and conducting interviews. Surveys were collected and analyzed quantitatively, while interviews were transcribed and analyzed qualitatively. Data were meticulously recorded and processed to ensure accuracy and reliability.

Quantitative data were analyzed using mean, standard deviation, and the Kruskal-Wallis Test to assess differences in SEF utilization across demographic groups. Qualitative data were analyzed using thematic analysis framed by Braun and Clark (2016) to identify key challenges and patterns in SEF utilization. This combined analysis provided a comprehensive understanding of SEF's effectiveness and areas for improvement.

4. Findings and Discussion

Table 1

Test of difference on the level of utilization of SEF as grouped according to age

Variable	H-Value	P-Value	Interpretation
Operation and Maintenance of Public Schools	2.96	0.40	Not Significant
Construction and Repair of School Buildings	1.86	0.60	Not Significant
Facilities and Equipment	3.09	0.38	Not Significant
Educational Research	2.20	0.53	Not Significant
Purchase of Books and Periodicals	1.57	0.67	Not Significant
Sports Development	0.12	0.99	Not Significant

Legend: $p < 0.05$ Significant; $p \geq 0.05$ Not Significant

Table 1 highlights the analysis of the utilization of the SEF across different age groups, revealing no significant correlation between age and the level of SEF utilization for various categories. Specifically, the operation and maintenance of public schools show no significant relationship with age ($p = 0.40$). This suggests that the effective execution of operations and maintenance is consistent across age groups, indicating that resources such as Management, Operation, and Other Expenses (MOOE) are being allocated and utilized efficiently. Similarly, the data shows no significant relationship between age and the level of SEF utilization for the purchase of books and periodicals ($p = 0.67$). This implies that the Department of Education has successfully distributed an adequate supply of books and periodicals, ensuring their effective utilization regardless of the age group. However, it is important to consider the findings of Diez et al. (2020), who observed a strong correlation between school finances and the quality of physical facilities and equipment. They emphasized that when school resources are wisely invested in purchasing equipment and maintaining infrastructure, students are more likely to perform better and exhibit positive behavior. This underscores the importance of not only maintaining adequate funding but also ensuring that these funds are strategically used to enhance the learning environment.

These findings suggest that while SEF utilization appears to be equitable across age groups, continuous monitoring, and strategic allocation are crucial to sustaining and improving the overall quality of education. Schools should prioritize the judicious use of funds, particularly in areas that directly impact student performance and well-being, to maximize the benefits of financial resources.

Table 2

Test of difference on the level of utilization of SEF as grouped according to sex

Variable	H-Value	P-Value	Interpretation
Operation and Maintenance of Public Schools	0.16	0.69	Not Significant
Construction and Repair of School Buildings	0.66	0.42	Not Significant
Facilities and Equipment	0.32	0.57	Not Significant
Educational Research	0.58	0.45	Not Significant
Purchase of Books and Periodicals	0.20	0.66	Not Significant
Sports Development	0.30	0.58	Not Significant

Legend: $p < 0.05$ Significant; $p \geq 0.05$ Not Significant

Table 2 presents an analysis of the utilization of the SEF by gender, revealing no significant differences in SEF utilization across various domains. Specifically, the data indicates that the level of SEF utilization for educational research does not significantly differ by gender ($p = 0.45$). This finding contrasts with Legaste's (2018) study, which noted a low number of teachers applying for research funding from the SEF, largely due to a lack of research skills among public school teachers. Similarly, the analysis shows no significant relationship between gender and the utilization of SEF for the construction and repair of school buildings ($p = 0.42$). This finding diverges from Gomes and Galicia (2022) assertion that the Department of Education should not rely solely on SEF for funding and should seek additional financial resources for school infrastructure projects.

Overall, the results suggest that gender does not play a significant role in the utilization of SEF resources across various categories, including the operation and maintenance of public schools, construction, and repair of school infrastructure, educational research, procurement of books and periodicals, and sports development initiatives. This implies that SEF allocation and utilization are equitable between male and female stakeholders, ensuring that resources are distributed and used effectively regardless of gender.

These findings highlight the need for continued efforts to ensure equitable and effective utilization of SEF across all domains. While gender does not appear to influence SEF utilization, it remains essential to address other factors, such as skill development and strategic financial planning, to maximize the impact of these funds on educational outcomes.

Table 3

Test of difference on the level of utilization of SEF as grouped according to educational attainment

Variable	H-Value	P-Value	Interpretation
Operation and Maintenance of Public Schools	1.49	0.48	Not Significant
Construction and Repair of School Buildings	2.26	0.32	Not Significant
Facilities and Equipment	1.57	0.46	Not Significant
Educational Research	0.61	0.74	Not Significant
Purchase of Books and Periodicals	2.58	0.28	Not Significant
Sports Development	0.38	0.83	Not Significant

Legend: $p < 0.05$ Significant; $p \geq 0.05$ Not Significant

Table 3 illustrates the noteworthy variance in the utilization of the SEF across different levels of educational attainment. The data indicate that there is no substantial correlation between educational attainment and the utilization of SEF resources for various purposes, including the operation and maintenance of public schools ($p = 0.48$), construction and repair of school infrastructure ($p = 0.32$), procurement of facilities and equipment ($p = 0.46$), engagement in educational research ($p = 0.74$), acquisition of books and periodicals ($p = 0.28$), and initiatives pertaining to sports development ($p = 0.83$). In connection, Rico's study (2021) highlights that simply purchasing books and periodicals may not adequately cater to the needs of a large student population. Thus, prioritizing the acquisition of supplementary learning materials such as magazines, pamphlets, journals, and newspapers is recommended as these resources offer timely updates and diverse learning opportunities for students.

Table 4

Test of difference on the level of utilization of SEF as grouped according to position

Variable	H-Value	P-Value	Interpretation
Operation and Maintenance of Public Schools	11.51	0.32	Not Significant
Construction and Repair of School Buildings	14.48	0.15	Not Significant
Facilities and Equipment	16.43	0.09	Not Significant
Educational Research	16.53	0.09	Not Significant
Purchase of Books and Periodicals	14.98	0.13	Not Significant
Sports Development	8.32	0.60	Not Significant

Legend: $p < 0.05$ Significant; $p \geq 0.05$ Not Significant

Table 4 presents the results of the test of difference assessing the level of utilization of SEF as grouped according to position. It shows that the level of utilization of SEF in terms of operation and maintenance of public schools is not significantly related to position ($p = 0.32$), construction and repair of school buildings ($p = 0.15$), facilities and equipment ($p = 0.09$), educational research ($p = 0.09$), purchase of books and periodicals ($p = 0.13$), and sports development ($p = 0.60$). This only implies that individuals occupying different positions within the educational system have similar patterns of SEF utilization, indicating a consistent approach to resource allocation across different roles. Relevantly, Legaste (2018) found out that very few teachers submitted research proposals to SEF seeking financing. Furthermore, he emphasized that a large number of teachers in public schools lacked the necessary skills to

perform educational research. He also suggested that administrators of public schools should orient the teachers so that the latter can request funding for their research from SEF.

Table 5
Challenges Encountered in the Utilization of the Special Education

Themes	Sub-themes	Coded Response
Infrastructure Development and Maintenance	Construction and Repair, Operation and Maintenance	Room repairs and school stage construction, office and school supplies, and health maintenance supplies; repainting classrooms; utility job orders; minor repairs.
Sports Development	Construction and Repair, Sports Development	Repair and maintenance of infrastructure, and sports-related activities from district meets to Palarong Pambansa; focus on sports development and construction/repair of facilities.
Partnership and Community Involvement	Construction and Repair, Sports Development	Local government focuses on sports development and school infrastructure; community involvement in SEF-funded projects.
Special Education and Inclusive Practices	Construction and Repair	Improvement of classroom environments for conducive study spaces; funding for night guards and utility staff; infrastructure improvements supporting special education.
Operational and Maintenance Expenses	Operation and Maintenance	Funding night guards and utility staff; operational expenses such as utility payments.
Educational Programs and Resources	Educational Research, Facilities and Equipment	Project BRIDGES for school building improvement; Project REECH for reading literacy; support for SNED learners; purchase of equipment for transition programs.
Policy and Priority Setting	Various (Construction, Research, Facilities, Sports)	Variations in SEF utilization depend on policy priorities, including infrastructure, research, personnel training, sports programs, ALS/SPED programs, and ICT equipment.

The thematic analysis of the challenges encountered in the utilization of SEF highlights several critical areas where strategic improvements could enhance the fund's effectiveness. These challenges are categorized into themes including infrastructure development and maintenance, sports development, partnership and community involvement, special education and inclusive practices, operational and maintenance expenses, and educational programs and resources.

The challenges in infrastructure development and maintenance, such as room repairs and utility job orders, suggest a need for a more efficient and timely allocation of resources. Recent literature emphasizes the importance of proactive infrastructure management to avoid disruptions in the educational process. For instance, a study by Lassa et al. (2023) found that delays in school maintenance and repairs can negatively impact student learning and safety. Addressing these challenges requires a streamlined process for approving and funding infrastructure projects, ensuring that maintenance issues are resolved promptly to maintain a conducive learning environment.

The focus on sports development highlights the ongoing challenges in balancing infrastructure needs with sports-related activities. While sports are integral to holistic education, recent studies have raised concerns about the equitable allocation of funds. According to Robertson et al. (2022), ensuring that sports funding does not overshadow essential infrastructure needs is crucial. The challenges here suggest that a more balanced approach is necessary, where both sports and infrastructure are adequately funded without compromising one for the other.

The challenges related to partnership and community involvement indicate the importance of stronger collaboration between local governments and schools. Buhner et al., (2021) highlight that effective partnerships can enhance resource utilization and ensure that SEF-funded projects are aligned with community needs. The challenges in this area suggest a need for more structured engagement with stakeholders to maximize the impact of SEF and ensure that projects are sustainable and community-supported.

The difficulties in utilizing SEF for special education underscore the challenges of addressing the diverse needs of learners. Kenny et al. (2020) emphasize the importance of targeted funding for special education to ensure inclusivity and equity. The challenges identified suggest that there may be gaps in how SEF is allocated for special education needs,

pointing to the need for more focused strategies that ensure resources reach the most vulnerable students.

Operational challenges, such as funding for night guards and utility staff, reflect the broader issue of adequately supporting the day-to-day needs of schools. Operational expenses are often underfunded, leading to challenges in maintaining basic school functions. Ensuring that SEF is appropriately allocated to cover these essential expenses is crucial for the smooth operation of schools and the safety of students and staff.

The challenges related to policy and priority setting reflect the complexities of managing SEF in alignment with educational goals. Thus, clear policy frameworks are essential for the effective utilization of educational funds. The identified challenges indicate that variations in SEF utilization may arise from inconsistent policy implementation, highlighting the need for clearer guidelines and more consistent oversight to ensure that SEF is used in ways that maximize its impact across all educational domains.

5. Conclusion and Recommendations

The analysis of the utilization of the Special Education Fund (SEF) in the Tiaong I District reveals significant insights into how resources are allocated and the challenges faced in optimizing their impact. The findings indicate that while SEF is effectively utilized in areas such as infrastructure development, sports programs, and operational maintenance, there are areas where improvements are needed. Notably, the analysis shows no significant differences in the level of SEF utilization based on demographic factors such as age, sex, and educational attainment. This lack of significant variance suggests that SEF utilization practices are uniformly applied across different groups, indicating a level of consistency in resource allocation. However, it also underscores the need for more nuanced strategies that address specific needs within these demographics to further enhance the effectiveness of SEF.

While the uniform application of SEF utilization practices suggests equitable distribution, the analysis highlights critical challenges that need to be addressed. The consistent patterns across demographic groups point to a need for targeted interventions that address specific needs and improve the overall impact of SEF. To optimize SEF utilization, it is essential for the Tiaong I District to develop tailored resource allocation strategies that consider the unique needs of various demographic groups. Enhancing stakeholder engagement through collaboration with parents, teachers, and community organizations can ensure that resource

allocation priorities reflect the specific areas requiring attention. Additionally, refining policy frameworks related to SEF management can create a flexible system that responds effectively to the diverse educational needs of students. Implementing training programs for school administrators on best practices in resource management and establishing a robust monitoring and evaluation framework will further strengthen the district's ability to leverage SEF for educational success.

For future research, it is recommended to explore the long-term impacts of SEF utilization on student outcomes and educational equity across various demographic groups. Longitudinal studies can provide valuable insights into how changes in SEF allocation affect student performance over time. Additionally, examining the experiences of other districts with similar funding structures may yield best practices that can be adapted for the Tiaong I District. Investigating the role of community involvement in enhancing SEF effectiveness and student achievement could also contribute to a deeper understanding of how localized strategies can improve educational outcomes.

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