

Learning Transformation: Applying SBM and the Principle of Equifinality in Facing Local Challenges

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Abstract

This study focuses on the implementation of the principle of equifinality and School-Based Management (SBM) in early childhood education (ECE) in Serpong Subdistrict. The principle of equifinality provides flexibility for school principals to develop educational strategies tailored to local needs, while SBM emphasizes collaboration and decentralization in decision-making processes. This research aims to explore how these principles are applied in educational management and identify challenges faced during their implementation. The research employs a qualitative method with a case study approach, involving in-depth interviews, direct observation, and document analysis. Key respondents include school principals, teachers, and parents from several ECE institutions in the study area. The findings reveal that the principle of equifinality fosters innovation, such as project-based learning methods that respond to the specific needs of students. However, the success of this approach heavily depends on the availability of resources, which is a significant challenge for some schools. In the context of SBM, teachers are involved in lesson planning, but their participation in strategic decision-making remains limited. The involvement of parents and the community is also found to be low, reducing the effectiveness of the expected collaboration. The implications of this study highlight the need for policies that strengthen the managerial capacity of school principals and teachers, as well as enhance collaboration between schools, parents, and the community. This research contributes significantly to understanding the dynamics of locally-based educational management and its relevance to the needs of early childhood education, particularly in resource-limited areas.

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INTRODUCTION

Early childhood education (PAUD) is an important foundation for a child's cognitive, emotional, and social development (Brito et al., 2022; Noble et al., 2021; Rihatno & Nuraini, 2021). In Indonesia, the development of early childhood education has become a priority in efforts to create a superior generation, especially through inclusive and adaptive education programs (Alenezi et al., 2023; Sanchez, 2023; Zeeshan et al., 2022). However, social facts show that not all early childhood education institutions have adequate resources to support quality learning (Alam & Mohanty, 2023; Bokayev et al., 2021; Mahoney et al., 2021). In some areas, such as Serpong Subdistrict, there are gaps in the implementation of learning strategies due to differences in economic conditions, infrastructure, and community support. This creates a challenge for educational institutions to design learning methods that are responsive to the needs of early childhood, while managing the limited resources available (Lim et al., 2023; Tapalova & Zhiyenbayeva, 2022; Turnbull et al., 2021). These challenges underscore the importance of flexible approaches in education management (Abulibdeh et al., 2024; Elendu et al., 2024; Sato et al., 2024), such as the application of equifinality principles and school-based management (SBM), which give schools autonomy to adapt strategies to local conditions (Abasolo, 2021; Anif, 2023; Melani et al., 2024).

Facts from the literature show that the application of the principles of equifinality and SBM has been widely researched in a global context as an approach that can improve the effectiveness of education management. According to Wilkins and Gobby (2024), autonomy in decision-making allows schools to better respond to local needs, while Silabay & Alegre (2023) emphasizes that collaboration between teachers, principals, and the community is key to SBM's success. On the other hand, in another research shows that without adequate resource support, the principle of equifinality is often only a theoretical concept that is difficult to apply in practice (Burke & Morley, 2023; Casado-Rodríguez & del Jesus, 2022; Shaw et al., 2024). Previous research has also indicated that there is a gap in the involvement of teachers and the community in education management, which hinders the effectiveness of SBM. Therefore, there is an urgent need to explore how these principles are applied in local contexts, such as PAUD in Serpong, to understand the specific dynamics that influence their success.

This study aims to explore the application of equifinality and SBM principles in the context of early childhood education in Serpong Subdistrict, focusing on how education strategies are designed and implemented under various resource constraints. The formulation of this research problem includes several key questions: How do school principals and teachers utilize autonomy in education management? How involved are parents and communities in supporting SBM implementation? And, what are the main challenges schools face in implementing the principles of equifinality and SBM?.

This research is expected to provide new insights into how this approach can support more inclusive and effective early childhood education, especially in resource-constrained regions. The study argues that the application of equifinality principles and SBM can create flexibility that allows schools to tailor educational strategies to local needs. The provisional answer posed is that the success of this approach depends heavily on three main factors: the capacity of principals and teachers in designing relevant strategies, the active involvement of the community in supporting educational programs, and the availability of adequate resources. Using a qualitative case study approach, this study tries to test the argument in the context of PAUD in Serpong. The results of this research are expected to make theoretical and practical contributions in understanding the dynamics of school-based management and encouraging education policies that are more responsive to local needs.

RESEARCH METHOD

This research was conducted in several PAUDs located in Serpong Subdistrict, with analysis units including school principals, teachers, parents of students, and institutional documents. This study uses a qualitative design with a case study approach to explore in depth the implementation of equifinality principles and school-based management (SBM) in the context of early childhood education. This approach was chosen to understand complex phenomena, including managerial adaptation and decision-making involving a wide range of actors in an educational setting (Monaro et al., 2022; Priya, 2021; Renjith et al., 2021). This study also emphasizes on the local context to capture specific dynamics in the research area.

The sources of information in this study involve various main respondents, including school principals, teachers, and parents of students who have direct experience in the management and implementation of education policies in early childhood education. Additional information was obtained from policy documents, activity reports, and school evaluation records. Resource persons are selected purposively based on their role in the educational institution, taking into account their expertise and experience in the context of study. This data allows for an in-depth exploration of each party's role, perspective, and contribution in the application of the equifinality and SBM principles.

Data was collected through in-depth interviews, direct observations, and documentation analysis. Interviews are conducted with a semi-structured guide to ensure exploration of relevant themes without compromising flexibility in digging up additional information. Direct observation is focused on learning activities, decision-making, and interaction between teachers, principals, and the community. Data analysis is carried out through the stages of data reduction to filter important information, data presentation (data display) in the form of tables and diagrams, and verification to draw conclusions.

Coding is used to maintain the privacy of sources, as shown in the following table.

Table 1. Resource Person Code

Resource Person Code	Position	Institution
K_S1	Principal	PAUD Kasih Ibu
G_S2	Teacher	PAUD Harapan Jaya
G_S3	Teacher	PAUD Harapan Jaya
K_S2	Principal	PAUD Nusa Indah
P_O1	Parents of Students	PAUD Rumah Main Cikal

The table above shows the resource person codes used in this study. The code is designed to maintain the anonymity of the source and is used in reporting the results of interviews and observations. This ensures that the privacy of each respondent is maintained without compromising the credibility of the data collected.

RESULT AND DISCUSSION

Result

Application of the Equifinality Principle in School-Based Management

The results of in-depth observation in several PAUDs in Serpong Subdistrict show that the principle of equifinality has been implemented by providing flexibility to school principals in designing and implementing various educational strategies that are in accordance with local conditions. For example, at PAUD Rumah Main Cikal, the principal applies a project-based learning method that is tailored to the needs of early childhood development. This approach allows teachers to create creative and interactive learning activities, which are specifically designed to meet the unique characteristics of each classroom. This observation shows that the freedom in choosing learning methods helps schools to be more responsive to the dynamics and specific needs of students.

Furthermore, observations at PAUD Harapan Jaya revealed that decisions related to extracurricular activities often involve the active participation of parents and support from the local community. The principal regularly meets with parents to design programs that are relevant and engaging for children, thus creating a more holistic learning environment. However, in PAUD Nusa Indah, the limitation of financial resources and infrastructure is the main obstacle in the optimal application of the equifinality principle. This can be seen from the lack of variety in learning methods that can be applied, due to limited funds to buy the necessary learning equipment. From the results of the observations made above, it can be described as shown in figure 1.

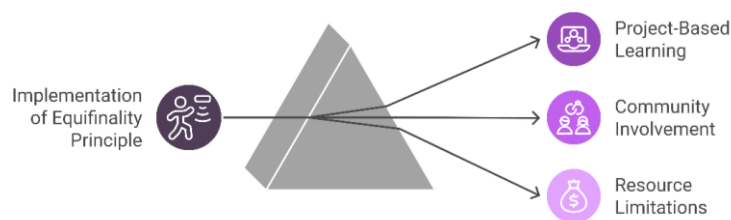


Figure 1. Application of the Principle of Equifinality in PAUD Serpong

As illustrated in Figure 2, the flexibility of school principals in adopting the principle of equifinality results in diverse educational strategies. At PAUD Rumah Main Cikal, a project-based approach is used to meet the local needs of students through creative activities. Meanwhile, PAUD Harapan Jaya has succeeded in involving the local community as partners in the implementation of educational activities. However, PAUD Nusa Indah faces significant obstacles in the implementation of the strategy due to limited facilities and resources. The application of the principle of equifinality in PAUD Serpong shows that there is a significant effort to adapt learning methods to local needs. Nonetheless, challenges such as resource constraints remain a major obstacle to optimizing this flexibility. This highlights the importance of adequate resource support so that the principle of equifinality can truly increase the relevance and effectiveness of education at the early childhood level.

Perspectives of Teachers and Principals in the Implementation of SBM in Early Childhood Education

Based on interviews with several principals and teachers in PAUD in the Serpong area, various perspectives were found related to the application of School-Based Management (SBM) principles in education management. The principal of PAUD Kasih Ibu explained that the principles of SBM in their school have been implemented by involving teachers in curriculum planning and learning evaluation. However, he revealed that even though teachers are given space to participate in decision-making, there are still major challenges in terms of parent engagement and the community around the school. "We provide opportunities for teachers to design learning, but we still have difficulty in involving parents in this process" (K_S1, 2023). This indicates that despite the commitment to SBM, the implementation of this principle has not fully run as it should.

In further interviews with early childhood education teachers, it was found that although they have the freedom to design learning, there is ambiguity in terms of evaluation and monitoring of these learning outcomes. A teacher at PAUD Harapan Jaya stated that even though they were involved in the planning, many important decisions still came from the principal, which reduced their sense of involvement.

"We were indeed given the opportunity to propose a learning plan, but the final decision remains in the hands of the principal. We feel we don't have enough space to fully implement our ideas" (G_S2, 2023). This shows that although teacher empowerment in the context of SBM is expected to be maximized, the reality is that their involvement is still limited to a smaller scope, with little influence on school policy. From a series of interviews that were conducted, analysis was carried out through thematic analysis as shown in table 2.

Table 2. Thematic Analysis

Respond	Coding	Category	Theme
K_S1 (Principal of Kasih Ibu)	Teacher participation is limited to the learning design.	Teacher Empowerment	Teacher Empowerment in Planning
G_S2 (Guru Harapan Jaya)	The final decision is in the hands of the principal.	Decision	Strategic Decision Making
K_S1 (Principal of Kasih Ibu)	Parental involvement in management is still low.	Parent Involvement	Parent and Community Involvement
G_S3 (Guru Harapan Jaya)	Collaborations are unstructured and often ad-hoc.	Collaboration	Collaboration in Education Management
K_S2 (Principal of Nusa Indah School)	Technical challenges and lack of evaluation mechanisms.	Implementation Challenges	Challenges in SBM Implementation

From table 2. It is known that although the SBM principle has been implemented, the implementation process has not been optimal. Teachers are given the freedom to design learning, but strategic decisions remain in the hands of the principal, which narrows the space for their participation in the management of education. In addition, the involvement of parents and the community in the management of education in schools is also still very limited, so the SBM principle that is expected to involve all parties in decision-making has not been fully achieved. This shows that despite the progress, the challenges in the implementation of SBM in early childhood education are still quite significant.

These findings reflect the importance of the role of school principals as a guide in education management, but also show that to optimize the implementation of SBM, there needs to be increased empowerment for teachers as well as further involvement from parents and the community. As revealed by various previous studies, strong collaboration between teachers, principals, parents, and the community is essential for the success of SBM (Hadi, 2020). Therefore, the challenges revealed through this interview show the need for revision in the decision-making mechanism so that the SBM principles truly run in an inclusive manner and involve all parties equally, from the management level to the implementation of classroom learning.

Implementation of SBM in Learning Methods in Early Childhood Education

Documentation obtained from several PAUDs in Serpong provides a structured overview of efforts to implement School-Based Management (SBM) principles. Analysis of policy documents, school activity reports, and program development plans shows that the implementation of SBM is carried out with an approach that involves various important elements, such as teacher involvement in learning program management, program success evaluation, and data-driven follow-up. For example, the PAUD Harapan Jaya policy document includes guidelines that emphasize openness and independence in the management of learning activities, followed by periodic evaluations to assess the effectiveness of the program. In addition, a documented report of the results of the evaluation shows that the school has identified several success indicators that include academic and non-academic outputs as part of the implementation of SBM. However, the documentation also notes the challenges faced, such as the lack of parental and community involvement in supporting the school program. This documentation shows that although the implementation of SBM has been carried out, some aspects still need to be improved to achieve better effectiveness.

More in-depth, the PAUD Bina Kasih policy document notes that the implementation of SBM is carried out by adopting four main dimensions: concept understanding, implementation dynamics, outputs or results, as well as evaluation and follow-up. Based on this documentation, the school community's understanding of SBM includes the concept of openness in program management and independence in determining policies that are relevant to student needs. Furthermore, the dynamics of implementation include material and manpower support accompanied by challenges such as acceptance of change and adaptation to the times. The characteristics of SBM output are identified through academic and non-academic results, while program follow-up is carried out through periodic evaluations of program successes and failures. This entire process is documented in the annual work plan and the report on the results of the school evaluation meeting. To clarify the relationship between these elements, a documented SBM implementation chart in PAUD Serpong is shown in the following figure.

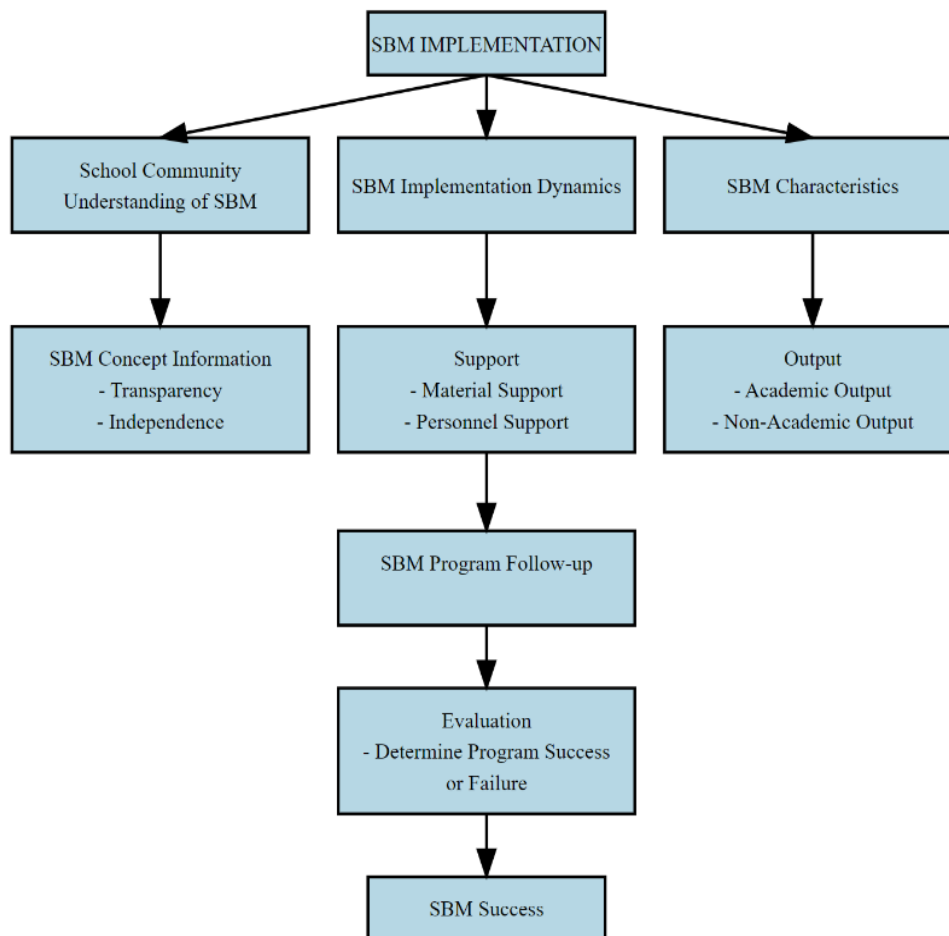


Figure 2. SBM Implementation

From the documentation that has been analyzed, it can be seen that the implementation of SBM in PAUD Serpong does not only refer to one aspect, but involves various components that support each other. The understanding of school residents about the SBM concept is an important first step, followed by the dynamics of implementation, output, and evaluation. The chart displayed provides a comprehensive overview of the process performed, including specific documented steps, such as program planning, manpower support, and follow-up evaluation. However, the documentation also noted the challenges faced, such as the lack of community involvement in program evaluation, which is a homework for schools to increase collaboration with external parties.

Discussion

The application of the principle of equifinality in school-based management, as found in PAUD in Serpong, has significant implications for the flexibility of education management. These findings highlight how school principals can use their freedom to develop educational strategies that are appropriate to the local context. For example, the project-based method applied at PAUD Rumah Main Cikal reflects high adaptability to the needs of early childhood development. This study reinforces the view that flexibility in school management allows for a more effective response to local needs, as proposed by Haapaniemi et al., (2021), that emphasized that school autonomy increases the relevance of the curriculum to the needs of students. However, these results also show that without adequate resource support, as happened in PAUD Nusa Indah, the application of the equifinality principle becomes less than optimal. Thus, this finding urges the existence of policies that support the capacity building of school principals to utilize management flexibility for the welfare of students.

The correlation between the application of the principle of equifinality and the success of school management lies in the role of the principal as an agent of change. Their ability to select and implement appropriate methods is directly influenced by the school's social and economic context. In line with the educational adaptation theory of Villalonga et al., (2021), flexibility in decision-making allows school principals to adapt educational strategies to local dynamics. However, in PAUD Nusa Indah, resource constraints reveal that this principle cannot fully run without external support. This shows that although the principle of equifinality encourages innovation, its success is highly dependent on the existence of a supporting structure that allows for the effective implementation of the strategy.

The perspective of teachers and principals in the implementation of SBM shows that despite positive steps in teacher involvement, their participation space is still limited. This raises the implication that the SBM principle has not been fully inclusive, although it aims to empower all parties. These findings reinforce the criticism raised by another research that highlight that the implementation of SBM is often hampered by power imbalances between principals and teachers (Fahmi et al., 2024; Hermawan, 2023; Maftuh, 2023). Limited teacher participation in strategic decision-making reduces the effectiveness of SBM implementation, especially in the context of collaboration between parties that should be at the core of this approach. Thus, there is an urgent need to strengthen collaboration mechanisms that allow teachers to have a more significant role in school management.

The correlation between the limitations of the role of teachers in SBM and the obstacles to implementation shows that there are systemic problems in the implementation of school-based management. As revealed by Walid and Malik, (2023), the distribution of responsibilities within SBM is often uneven, with the principal holding primary control over strategic decisions. In the context of PAUD Serpong, this is evident from the dominance of school principals in decision-making, which causes frustration among teachers. This obstacle reflects that although the SBM principle offers managerial freedom, the lack of real decentralization in decision-making limits its effectiveness.

Thus, reforming the decision-making structure is essential to address this problem. The implementation of SBM, as documented in PAUD Serpong, shows that successful implementation requires synergy between concept, implementation, and evaluation. Although measures such as data-driven evaluation and openness in program management have been implemented, the lack of parental and community involvement reduces the potential positive impact of SBM. Previous studies by Kharisma (2024) highlighted that community engagement is key to SBM's success, which not only increases support but also creates a sense of belonging towards the school's program. Thus, these results indicate the need for policies that facilitate closer relationships between schools and communities to improve the quality of education.

The relationship between openness and dynamics of SBM implementation and program success shows the importance of good integration between all dimensions in school management. In the context of PAUD Serpong, the lack of community involvement indicates a gap in the SBM implementation process, even though the basic concept is well understood. This is in line with the findings of Holili et al., (2024), which show that understanding the concept alone is not enough without adequate implementation support. Therefore, a holistic approach that integrates all elements of SBM is needed to address these challenges and improve the overall quality of education.

CONCLUSION

This research shows that the application of the principle of equifinality in school-based management (SBM) provides significant flexibility for school principals to adapt educational strategies to local needs. The findings show that this flexibility encourages innovation, such as project-based learning methods at PAUD Rumah Main Cikal that successfully adapt to early childhood development. However, the success of the implementation of this principle is highly dependent on adequate resource support, as seen in PAUD Nusa Indah which is experiencing obstacles due to limited facilities. In addition, in the implementation of SBM, even

though the principles of participation and decentralization have been applied, there are still inequalities in decision-making that are often dominated by school principals. These findings highlight the importance of a balance between flexibility and systemic support, as well as more inclusive collaboration to ensure the effectiveness of education strategies at the local level. This research makes an important contribution to the education management literature, especially in the context of early childhood education, and underscores the role of school principals as agents of change in local education.

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