JUSTEK : JURNAL SAINS DAN TEKNOLOGI
http://journal.ummat.ac.id/index.php/justek
ISSN 2620-5475
Vol. 7, No. 4, Desember 2024, Hal. 460-467

Analysis of the Zoning System from the Perspective of Education Decentralization at the Department of Education and Culture

[1]*Februati Trimurni, [2]Wiro Oktavius Ginting, [3]Krislin Margarettha Hasianna Sitorus
[1,2,3]Public Administration Science, Universitas Sumatera Utara, Indonesia
februati@usu.ac.id

ARTICLE INFO

Article History:

Diterima : 14-09-2024
Disetujui : 13-11-2024

Keywords:
Zoning System; Education Decentralization; Department of Education and Culture.

ABSTRACT

Abstract: The purpose of this study is to examine the secondary school zoning system policy in the New Learner Acceptance (PPDB) from a decentralization standpoint. The zoning system policy can help achieve sustainable development that takes the community's socioeconomic circumstances into account. This study uses the Lindblom incremental model and includes the following analysis indicators: participation of actors and stakeholders, ongoing renewal, and adaptation to community conditions and requirements. This paper uses a descriptive qualitative method, collecting data through in-depth interview techniques, observation, and documentation. Research informants were selected from various parties, namely the Education and Culture Office of Medan City, the Medan City Government, the Regional People's Representative Council (DPRD), Non-Governmental Organizations (NGOs), and affected communities. The results showed that the Education and Culture Office of Medan City uses Google Maps to determine the distance between possible new students' homes and the targeted schools as a zoning determination tool. Based on previous years, regulations pertaining to the proportion of new student admissions from school capacity are also renewed. The DPRD, the Medan City Education and Culture Office, NGOs, the community, and public schools that oversee the zoning system are some of the other participants and stakeholders in the policy. This study recommends paying more attention to students who live in zoning-unserved areas, perhaps by constructing public schools in these areas more rapidly.

https://doi.org/10.31764/justek.v7i4.29467
This is an open access article under the CC–BY-SA license

A. INTRODUCTION

Article 12 of Law No. 23/2014 establishes that providing essential public services, including education, is a key responsibility of the government. However, despite this legal mandate, numerous studies indicate that the education sector in Indonesia continues to face significant challenges, particularly in terms of equity and access to quality education. Research by (Brewis, 2019) highlights that educational inequality remains a pressing issue in Indonesia, where disparities between urban and rural areas, as well as between elite and non-elite schools, continue to widen. The distinction between "favorite" schools often characterized by their high-achieving students and well-off families and underperforming schools, where students generally come from low-income families, further emphasizes this divide (Shambaugh, 2012).

This divide has led to the concentration of resources and academic success in only a few schools, while many others remain underserved, thereby perpetuating cycles of

inequality. According to (Duncan et al., 2014), students from wealthier families have greater access to quality education, while students from poorer households are more likely to attend schools that lack the resources necessary for their academic success. These patterns of inequality highlight the urgency of policies aimed at leveling the educational playing field, as also supported by George & Hammond (2019), who found that school zoning policies can play a critical role in improving equal access to education if implemented effectively.

In response to these disparities, the Ministry of Education and Culture introduced the Zoning System for New Student Admission (PPDB). This policy aims to mitigate educational inequality by ensuring that students, regardless of socioeconomic status, have access to schools within their designated residential zones. The zoning system is expected to address the issue of uneven resource allocation and student distribution, which as noted by Andrewartha et al. (2022), is crucial to balancing educational opportunities for students from different backgrounds. (Zawacki-Richter, 2019) also reported that the zoning system has been linked to improved inclusivity in public schools by diversifying the student body.

Zoning, as defined by the Ardiansyah et al. (2015), refers to "the division of an area into several parts based on function and management objectives." In this context, the PPDB policy compels all public schools to provide equitable and high-quality educational services to students within their designated zones. By spreading out high-performing students and ensuring local schools cater to the needs of nearby residents, the zoning system is intended to reduce educational segregation, as indicated by (Lubienski et al., 2009). The zoning system aligns with international research on school catchment areas, such as the study by Prieto et al. (2023), which shows that geographically based school admission policies can help reduce socioeconomic stratification in education.

The implementation of the zoning system varies across Indonesia. Local governments are responsible for tailoring the policy to the specific needs and conditions of their regions through mayoral regulations (Perwal) for city regions and regent regulations (Perbup) for district areas. For instance, Perwal Medan City No. 27 of 2021 governs the admission of new students to kindergartens, elementary schools, and junior high schools in Medan City. Other cities have adopted similar regulations, such as Yogyakarta (Perwal No. 23 of 2019), Surabaya (Perwal No. 44 of 2023), and Bandung (Perwal No. 57 of 2021), each adapting the system to their respective educational and demographic challenges. Research by (Peurach et al., 2019) has demonstrated that such local adaptations can help align educational policies with the realities on the ground, making the zoning system more effective in addressing regional educational disparities.

Table 1. Number of Schools, Students and Teachers in Medan City for the 2023/2024

Level	SD	SMP
School	904	407
Students	12.040	199.781
Teachers	5.963	99.060

Source: Basic Education Data Directorate General of Early Childhood Education, Primary Education and Secondary Education Medan City, 2023

Despite the policy's widespread implementation, there are still challenges in achieving its objectives, particularly in cities like Medan. Table 1 illustrates the persistent disparities in the number of schools, students, and teachers at both the elementary school (SD) and junior high school (SMP) levels in Medan City. These disparities hinder the effectiveness of the zoning system in addressing inequality, as also highlighted by the Chairperson of Commission II of the Medan City DPRD (2023). According to her, the uneven distribution of public junior high schools across Medan's subdistricts remains a significant obstacle. A study by Tyagi et al. (2021) supports this observation, noting that an imbalance in school infrastructure leads to unequal learning opportunities, particularly for students in less developed areas. Additionally, research by Surico et al. (2021) points out that the concentration of public schools in certain districts exacerbates access difficulties for students in under-served regions.

This research uses the incremental approach introduced by Lindblom (Ryzin, 2021) in his book "The Science of Muddling Through". Incremental analysis allows policy development through limited comparison. This means that the policy or decision to be taken is only slightly different from the previous decision. This is to maintain continuity and reduce risk. Three indicators in the incremental approach are adjustments to conditions and community needs; continuous renewal; and participation of actors and stakeholders. These three indicators are used in analyzing the zoning system policy in Medan City.

Freeman & Jacobs (2021) stresses the shift of authority from the central to local levels, while Treisman (Plaček et al., 2020)claims that decentralization boosts community engagement and official responsibility. According to the definition given above, the Medan City Education and Culture Office is fully responsible for managing the PPDB zoning system's educational aspects. To assist the attainment of sustainable growth, each region is thus granted the flexibility to regulate and establish the technique and system of admitting new students while considering the socioeconomic situations of the community.

The objective of this research is to analyze the implementation of the zoning system for New Student Admission (PPDB) in Medan City, with a particular focus on its effectiveness in reducing educational disparities across different regions of the city. By examining both the successes and challenges of the system, this research seeks to provide insights into how well the policy achieves its intended goals of equitable access to quality education. The expectation is that this study will contribute to a better understanding of the zoning system's impact on educational equity and offer recommendations for improving its implementation in Medan and other similar regions. Furthermore, this research will help identify the factors that contribute to the system's limitations, particularly in addressing the unequal distribution of schools and resources, thus providing a basis for policy refinement and enhancement.

B. METHODS

This study examines the implementation of the zoning system policy for new student admissions from a decentralization perspective, focusing on the Medan City Education and Culture Office. The research uses a qualitative approach, with data gathered from key

stakeholders, including officials from the Education Office, NGOs, the DPRD, and affected communities, selected through purposive sampling.

Data collection was carried out using three methods: in-depth interviews, direct observation, and secondary data analysis (Taherdoost, 2021). Interviews with informants explored their experiences and perspectives on the zoning system, while observations in schools and neighborhoods provided factual insights into the policy's practical application. Secondary data, including official documents and reports on the zoning system, were used to understand policy changes and its impact on admissions.

The analysis followed a three-stage process: data reduction, data presentation, and conclusion drawing. In the data reduction stage, only relevant information was retained (Zhao et al., 2020). The remaining data were then organized into themes for clearer interpretation. Triangulation was employed to ensure the validity and reliability of the findings by cross-verifying information from multiple sources and methods. This research aims to provide a detailed understanding of the zoning system's effectiveness in promoting educational equity in Medan City, highlighting key challenges and offering recommendations for policy improvement.

C. RESULT AND DISCUSSION

Since 2017, the zoning system has served as a decentralized tool for schooling. The Indonesian Ministry of Education and Culture first issued the PPDB zoning regulation in 2017, and it was improved upon in 2018. The goal is to change education systems overall, which includes promoting fair allocation of educational resources, eradicating discrimination, and enhancing the distribution of education. Each area must issue a PPDB policy foundation that is specific to its needs and circumstances for this zoning policy foundation to exist. One method for promoting high-quality education for the community's social and economic advancement in Medan City is the education zoning scheme.

1. Adjustment to Community Conditions and Needs

The implementation of the zoning system in terms of educational decentralization is inseparable from the social and economic conditions of the region itself. The fulfillment of community needs must be adjusted to regional conditions to achieve the goal of sustainable development, namely quality education.

From the standpoint of decentralization in education, the central government grants each region the autonomy to decide how best to modify the distance by local demands (Trimurni & Mansor, 2020). The zoning pathway PPDB is meant for new prospective students who live in the zoning region defined by the Regional Government, as stated in Article 17 of Permendikbud No. 1 of 2021, which explains this. Additionally, the Secretary General's Decree No. 47/M/2023 highlights that the Regional Government may utilize the following criteria to determine the zoning area: the administrative area; the school radius to the smallest administrative area where students reside; or other techniques that are appropriate for the particular region.

From the results of interviews with the Medan City Education and Culture Office, the Medan City Education and Culture Office uses Google Maps to measure the distance between homes and schools of prospective new students. The use of Google Maps is

considered the most appropriate for the characteristics of the region because there are still 2 villages, namely Polonia Village and Perjuangan Village, which do not have public schools. The policy of using Google Maps is considered most appropriate for Medan City compared to the approach of the smallest administrative area of domicile of students.

However, the use of Google Maps in determining zoning areas is not without problems. From interviews with several parents, it was found that Google Maps is inaccurate. One parent who sent his child to a private school because he did not pass the PPDB selection due to Google Maps said "My house is close to the school but because Google Maps is not clear, my child cannot be accepted at the public junior high school that my child expected".

The findings reveal that the zoning system in Medan City has enhanced equitable access to education, primarily through the use of Google Maps to measure distances between students' homes and schools. While this approach is effective, inaccuracies reported by parents can lead to placement issues, echoing Tyagi et al. (2021) research on the limitations of technological tools in educational policies.

2. Continuous Renewal

Since it was first put into effect in 2017, the zoning system policy for the PPBD has changed. This policy is still being updated to reflect community needs. The New Student Admission Policy (PPDB) is implemented nationally, taking into account suggestions from different parts of Indonesia. Permendikbud No. 51/2018, which was subsequently revised to Permendikbud No. 20/2019, details the proportion of each pathway, with particular emphasis on the zoning pathway. The method and the proportion of implementation, however, differ at the regional level. The most crucial aspect is that this zoning system can raise educational standards and accessibility, enabling all kids to attend top-notch institutions of learning.

In line with the incremental analysis model introduced by Lindbolm (Ryzin, 2021), Medan City experienced 2 (two) changes in regulations related to PPDB Admission. Starting from Medan Mayor Regulation Number 23 of 2019 to Medan Mayor Regulation Number 27 of 2021 on the Admission of New Learners at Kindergartens, Elementary Schools, and Junior High Schools. In the first regulation, the zoning system is implemented at least 80% of the school's capacity and there is no percentage distribution of admission channels. In the second regulation, the zoning system is structured where the percentage division is clearer. The zoning pathway is at least 70% of the capacity for elementary schools and the zoning pathway is at least 50% of the capacity for junior high schools. Thus, the changes that occur only focus on changes in the percentage of the admission quota.

Due to policy changes at the central level, Medan City implemented the decentralization of education through the zoning system by adapting the minimum admission limit for junior high school students to 50% and primary school students to 70%. In Medan City, the government's decision to lower the admission percentage through the zoning system revived competition and motivation among schools and encouraged efforts to improve achievement. This in turn contributes to the overall improvement of education quality. As stated by one informant: "The change is there, now many high achievers have started to enter this school because 30% is taken from the

merit side but even this is not yet optimal because this change was made only a few years ago".

The zoning system has also evolved since its introduction in 2017, with adjustments made to the proportions of student admissions through zoning pathways. The current policy mandates that at least 50% of junior high school admissions and 70% of elementary school admissions come from zoning, reflecting the incremental policy adjustments discussed by Lindblom (Ryzin, 2021). This flexibility is crucial for adapting to community needs, as emphasized (Szemző et al., 2022).

3. Actor and Stakeholder Participation

The zoning system policy needs to be implemented by actors and stakeholders who are assigned specific roles. The Education and Culture Office of Medan City, non-governmental organizations, public schools using the zoning system, the Regional Representative Council of Medan City, and the community are actors and stakeholders in the zoning system for new student admissions in Medan City. In order to achieve high-quality education, these players and stakeholders collaborate to improve the educational environment.

The Education and Culture Office of Medan City is the primary actor in this zoning system regulation. When making decisions about education policy, the Medan City Education and Culture Office carefully considers and analyzes the options. As a legislative body, the Regional People's Representative Council (DPRD) of Medan City (Commission 2) oversees the zoning system policy. In addition to governmental organizations and legislative bodies, non-governmental organizations that carry out external oversight also engage in synergistic cooperation.

The purpose of this zoning system is to realize equitable education, bring the family environment closer to the school, and eliminate discrimination, namely, every child gets a school allotment and there is no struggle for favorite schools. Furthermore, the Education and Culture Office of Medan City and other stakeholders implement this zoning system policy by paying attention to local needs to produce quality education that will contribute to the socioeconomic development of the community. As the results of the interview with the Education and Culture Office of Medan City show: "We implement decentralization by the existing autonomy where the central government only provides a minimum limit of 50% for the zoning pathway, then it is returned to the local government and we (the Education and Culture Office of Medan City) only implement the mayor's regulation".

The Education and Culture Office of Medan City has taken various measures to ensure the implementation of the zoning system policy in PPDB. First, improving the availability of school infrastructure and facilities due to the lack of benches in public schools. Second, providing training for teachers to get an even quality of teachers because the zoning system requires an even distribution of teachers. Finally, perfecting the use of Google Maps technology so that the level of accuracy is higher in measuring the distance between homes and schools.

Furthermore, the involvement of multiple stakeholders, including the local government, schools, and NGOs, is pivotal in implementing the zoning policy. This supports Freeman & Jacobs (2021) assertion that decentralization fosters local

engagement. However, challenges remain, particularly in subdistricts lacking public schools, which complicates the goal of equitable access. This concern aligns with (Trimurni et al., 2022), who highlighted similar issues in North Sumatra. Addressing these gaps through the construction of additional schools in underserved areas is essential for improving educational equity.

D. CONCLUSIONS AND SUGGESTIONS

The implementation of the PPDB zoning system policy from the perspective of decentralization of the education sector in Medan City can be seen from 3 indicators, namely: adjustment to community conditions and needs, continuous renewal, and participation of actors and stakeholders. The Education and Culture Office of Medan City uses the Google Maps application to measure the distance between homes and schools of prospective new students. This is by regional conditions in Medan City. Regulations related to the PPDB zoning system in Medan City change in line with regional needs and demands from the community. One of the updates is that the percentage of admissions from the achievement path has increased, which causes students with achievements to be able to color in each school. Schools, NGOs, DPRD, the community, and the Education and Culture Office are among the actors and stakeholders involved in the implementation of the education zoning system policy in Medan City. Every one of these players has a specific role to play in raising the standard of education across the board to achieve sustainable development. The findings of this study offer suggestions to the central government or local governments for how best to support pupils who reside in unincorporated areas, such as hastening the establishment of public schools in these areas.

The research team suggests that future studies should focus on improving the accuracy of technological tools like Google Maps in determining zoning areas, as inaccuracies have been noted in this study. Additionally, further research could explore alternative methods for zoning determination, as well as investigate ways to accelerate the construction of schools in underserved areas to enhance educational equity.

REFERENCES

Andrewartha, L., Knight, E., Simpson, A., & Beattie, H. (2022). *A balancing act: supporting students who are parents to succeed in Australian higher education.* https://www.ncsehe.edu.au/app/uploads/2022/02/Andrewartha_LaTrobe_Final.pdf

Brewis, E. (2019). Fair access to higher education and discourses of development: a policy analysis from Indonesia. *Compare*. https://doi.org/10.1080/03057925.2018.1425132

Duncan, G. J., Magnuson, K., & Votruba-Drzal, E. (2014). Boosting family income to promote child development. *Future of Children*. https://doi.org/10.1353/foc.2014.0008

F., A., A.A., M., & N., A. (2015). Forest and land-use governance in a decentralized Indonesia: A legal and policy review. In *Forest and land-use governance in a decentralized Indonesia: A legal and policy review*. https://doi.org/10.17528/cifor/005695

Freeman, J., & Jacobs, S. (2021). STRUCTURAL DEREGULATION. *Harvard Law Review*.

George, J., & Darling-Hammond, L. (2019). *The federal role and school integration: Brown's promise and present challenges.* https://learningpolicyinstitute.org/product/federal-role-school-integration-browns-promise-report

John Surico, Eli Dvorkin, J. B. (2021). *Branches to Recovery: Tapping the Power of NYC's Public Libraries to Rebuild a More Equitable City*. https://nycfuture.org/research/branches-to-

recovery
Lubienski, C., Gulosino, C., & Weitzel, P. (2009). School choice and competitive incentives: Mapping the distribution of educational opportunities across local education markets. *American Journal of Education*. https://doi.org/10.1086/599778
Peurach, D. J., Cohen, D. K., Yurkofsky, M. M., & Spillane, J. P. (2019). From Mass Schooling to Education Systems: Changing Patterns in the Organization and Management of Instruction. In *Review of Research in Education*. https://doi.org/10.3102/0091732X18821131
Plaček, M., Ochrana, F., Půček, M. J., & Nemec, J. (2020). Fiscal Decentralization Reforms and Local Government Efficiency: An Introduction. In *Public Administration, Governance and Globalization*. https://doi.org/10.1007/978-3-030-46758-6_1
Prieto, L. M., Aguero-Valverde, J., Flacke, J., & van Maarseveen, M. (2023). *Evaluating school priorities for equal opportunity in admission to schools. Journal of School Choice*. *17*((3)), 404–438.
Ryzin, G. G. Van. (2021). Nudging and muddling through. Perspectives on Public Management and Governance. *Perspectives on Public Management and Governance*, *4*(4), 339–345. https://doi.org/https://doi.org/10.1093/ppmgov/gvab021
Shambaugh, D. (2012). Acknowledgements and dedication. In *Charting China's Future: Domestic and International Challanges*. https://doi.org/10.4324/9780203817421
Szemző, H., Mosquera, J., Polyák, L., & Hayes, L. (2022). Flexibility and Adaptation: Creating a Strategy for Resilience. *Sustainability (Switzerland)*. https://doi.org/10.3390/su14052688
Taherdoost, H. (2021). Data Collection Methods and Tools for Research; A Step-by-Step Guide to Choose Data Collection Technique for Academic and Business Research Projects. *International Journal of Academic Research in Management*, *10*((1)), 10–38. https://doi.org/https://elvedit.com/journals/IJARM/wp-content/uploads
Trimurni, F., & Mansor, N. (2020). Decentralization of public healthcare services in the province of Sumatera Utara, Indonesia. *International Journal of Public Health Science*. https://doi.org/10.11591/ijphs.v9i4.20508
Trimurni, F., P.M., R. K., & Ginting, W. O. (2022). Bureaucracy Challenges and Prospects of Transfer of Authority to Provide Secondary Education in North Sumatra Province. *Proceedings of the Second International Conference on Public Policy, Social Computing and Development (ICOPOSDEV 2021)*. https://doi.org/10.2991/assehr.k.220204.023
Tyagi, R., Vishwakarma, S., Rishi, M., & Rajiah, S. (2021). *Reducing Inequalities Through Education and Skill Development Courses*. https://doi.org/10.1007/978-3-319-71060-0_102-1
Zawacki-Richter, O. (2019). Introduction: Systematic Reviews in Educational Research. In *Systematic Reviews in Educational Research: Methodology, Perspectives and Application*.
Zhao, Y., Ren, L., Ma, Z., & Jiang, X. (2020). Novel Three-Stage Framework for Prioritizing and Selecting Feature Variables for Short-Term Metro Passenger Flow Prediction. *Transportation Research Record*. https://doi.org/10.1177/0361198120926504