

Educational Justice: Inequality in Pagedongan and Pandanarum, Banjarnegara

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Article History

Received on 21 June 2025

1st Revision on 28 July 2025

2nd Revision on 02 August 2025

3rd Revision on 07 August 2025

Accepted on 11 September 2025

Abstract

Purpose: This study analyzes systemic educational inequalities in Pagedongan and Pandanarum Districts, Banjarnegara Regency, using John Rawls's theory of justice. It focuses on disparities in teacher distribution, infrastructure, funding allocation, and student transitions during the 2017–2024 period.

Methodology: A qualitative case study approach was employed, involving participatory observation, semi-structured interviews with teachers, government officials, and parents, as well as document analysis of BPS data and educational budget reports. The data were analyzed thematically and validated through triangulation.

Results: The findings reveal significant educational disparities, including a 7:1 ratio of primary schools to junior secondary schools, teacher shortages of up to 32% in certain rural areas, and an education budget absorption rate of only 47.5%. Economic barriers, such as transportation costs reaching IDR 500,000 per month, and sociocultural factors, including child labor and early marriage, which account for 65% of dropout cases, further exacerbate educational inequality. These conditions are inconsistent with Rawls's difference principle, which emphasizes benefits for the least advantaged members of society.

Conclusions: This study advocates affirmative policy measures, including a 50% increase in teacher incentives for service in remote areas, as well as reforms to decentralized educational governance. It offers a justice-based framework for addressing rural educational disparities in Indonesia.

Limitations: The focus on only two districts may limit the generalizability of the findings. Furthermore, the qualitative design may not fully capture the statistical magnitude of educational inequalities. Developments occurring after 2024 were not considered, and Rawls's theory may not entirely reflect local sociocultural dynamics.

Contributions: This research provides both a philosophical framework and empirical evidence for policymakers. It identifies key drivers of educational inequality and proposes actionable recommendations for structural reform to ensure equitable educational opportunities for rural communities.

Keywords: *Educational Inequality, John Rawls, Justice Theory, Teacher Distribution, Rural Education*

How to Cite: Azmi, M. F. (2026). Educational Justice: Inequality in Pagedongan and Pandanarum, Banjarnegara. *Jurnal Studi Ilmu Sosial dan Politik (JASISPOL)*, 6(1), 119-132.

1. Introduction

Education is a fundamental human right and the primary foundation for national development. However, in Indonesia, there remains a significant gap between urban and rural areas. Data from the Ministry of [Artikel \(2021\)](#) indicates that the Gross Enrollment Rate (GER) for secondary education in urban areas reaches 85%, while in rural areas it is only 72%. This fact highlights a structural inequality in the distribution of access to education. Banjarnegara Regency is a concrete example of this disparity in Central Java. Critical issues are found in the Pagedongan and Pandanarum subdistricts. As many as 40% of elementary schools are short of permanent teachers, only 15% of schools have adequate laboratories and libraries, and the majority of the population relies on manual labor and agriculture. These conditions limit children's opportunities in both subdistricts to receive quality education.

In [Anderson \(2007\)](#), the importance of relational equality is emphasized to ensure that education does not reproduce dominance between central and peripheral areas or urban and rural areas. [Sen \(2020\)](#), through his Capabilities Approach, views education as a fundamental capability that expands individuals' substantive freedoms. Meanwhile, [Kolodny \(2023\)](#) stresses that inequity arises when certain groups lose economic, social, and cultural capital, thereby hindering their equal participation in social life. Thus, the educational disparity in Pagedongan and Pandanarum is not only a material issue but also involves social relations and power structures.

Several prior studies have highlighted factors contributing to educational inequality, such as the distribution of teachers, facilities, and transportation costs ([Muralidharan, & Sundararaman, 2015](#); [Evans, & Yuan, 2021](#)). However, most studies have analyzed these factors separately, with a focus on macro data ([Ayuningtyas, 2021](#)), and have not fully captured local dynamics and the experiences of marginalized groups. The case of Banjarnegara presents a tangible form of inequality, such as the allocation of education budgets favoring more developed areas ([World, 2019](#)), and the teacher-student ratio of 1:35, well above the national standard. Therefore, there is still a research gap in integrating contemporary justice theories with empirical studies on educational inequality at the subdistrict level in rural Indonesia, which has remained relatively neglected.

Based on this background, this study focuses on two main questions: why does educational inequality occur in the Pagedongan and Pandanarum subdistricts of Banjarnegara Regency, and how should the Banjarnegara Regency Government formulate policies to address it? The purpose of this study is to analyze the root causes of educational inequality in these two subdistricts using contemporary justice frameworks, namely Relational Equality, Capabilities Approach, and social capital-hierarchy theory. Additionally, this study aims to propose more equitable policy recommendations that prioritize the most vulnerable groups in society.

2. Literature Review

2.1 Literature Review

John Rawls' theory of justice provides an analytical framework that is highly relevant for understanding the condition of educational inequality in Banjarnegara. The Difference Principle asserts that inequalities are only justifiable if they benefit the least advantaged members of society. However, in the reality of Banjarnegara, the distribution of educational resources reflects the opposite pattern: the teacher-student ratio is 1:35, far above the national standard of 1:20, while schools in underdeveloped subdistricts such as Pagedongan and Pandanarum face significant infrastructure limitations and minimal budget access ([Beatty, Berkhout, Bima, Pradhan, & Suryadarma, 2021](#); [Martinez-Bravo, Perez-Arce, & Rozenas, 2017](#)). This situation indicates that local educational policies fail to meet the Rawlsian principle, as the most vulnerable groups are not benefiting the most; instead, they continue to fall further behind ([Hasan, 2021](#); [Ahsan, 2020](#)).

Furthermore, the concepts of Original Position and the Veil of Ignorance require policymakers to design rules as if they are unaware of their social positions in society. If this approach were applied, then the allocation of teachers, development of educational facilities, and distribution of budgets

should be decided with the interests of all subdistricts in mind, particularly the underdeveloped ones ([García, 2025](#); [Fazioli, 2024](#)). However, the practice in Banjarnegara shows the dominance of political patronage and the interests of certain groups in the policy-making process, which leads to the frequent neglect of the needs of marginalized communities, such as farming families and agricultural workers ([Hasan, & Suryadarma, 2021](#); [Efendi, 2022](#)).

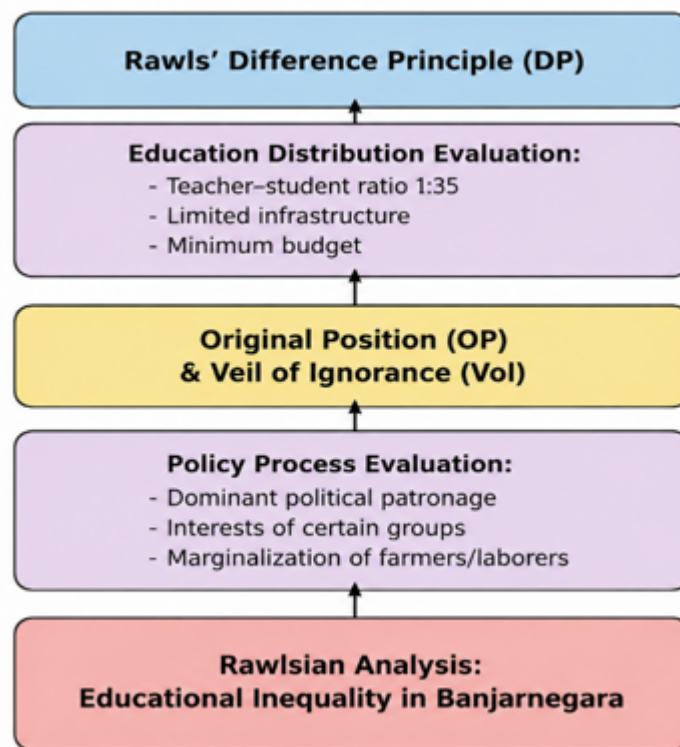


Figure 1.

Figure 1 shows the theoretical framework in this study emphasizes that John Rawls' Difference Principle and Original Position/Veil of Ignorance are used as analytical lenses to examine educational inequality in Banjarnegara. The Difference Principle is employed to evaluate whether the distribution of educational resources, including the number of teachers, school infrastructure, and budgets, genuinely favors the most underdeveloped subdistricts (Pagedongan and Pandanarum), or instead exacerbates the gap. Meanwhile, the concepts of Original Position and Veil of Ignorance serve as normative instruments to assess whether local educational policies are formulated impartially, without political bias or the influence of particular interest groups ([Martinez-Bravo et al., 2017](#); [Ahsan, 2020](#)). Therefore, Rawls' theory is explicitly used as a dual evaluation tool: first, to measure the real impact of educational distribution on marginalized groups; second, to assess whether the political process and policies have been implemented according to the principles of distributive justice.

3. Methodology

This research was conducted in two subdistricts, namely Pagedongan and Pandanarum, in Banjarnegara Regency, focusing on elementary schools and junior high schools as units of analysis. The study examined inequalities in teacher distribution, school facilities, student enrollment, and the implementation of local government education policies ([Beatty, Berkhout, Bima, Pradhan, & Suryadarma, 2021](#)). Several studies have highlighted that unequal distribution of educational resources continues to disadvantage rural communities and underdeveloped subdistricts ([Fazioli, 2024](#); [Akram, & Iftikhar, 2019](#)). Five informants were purposively selected, including school principals, teachers, education department officials, and subdistrict officers. Data collection involved participatory observation, semi-structured interviews, and review of official documents from the Department of Education and BPS. Primary data were derived from observations and interviews,

while secondary data were obtained from educational reports and statistical publications from 2017 to 2024 ([Artikel, 2021](#)). Data analysis was conducted thematically to identify patterns of educational inequality, with validation through triangulation, member checks, and audit trails ([Forsey, & Davidson, 2020](#); [Seba, Mahajan, & Baldauf, 2019](#); [Abdullahi, & Salihu, 2022](#)).

The theoretical framework is grounded in John Rawls' theory of justice, particularly the difference principle and the equal liberty Principle, to assess whether educational policies in the subdistricts provide substantial benefits to vulnerable groups and ensure equal access to quality education ([Fazioli, 2024](#); [Tadmor, 2020](#)). Using these principles, the study evaluates the real impact of policy on marginalized groups, the fairness of political processes, and the influence of interest groups in shaping outcomes ([Tan, & Yates, 2017](#); [Fuller, & Clarke, 2016](#); ([Gertler, Heckman, Pinto, Zanolini, Vermeersch, & Walker, 6201](#)); ([Benabou & Tirole, 2016](#))). Other scholarly contributions highlight challenges of educational equity, teacher quality, and curriculum disparities, which contextualize the case of Banjarnegara and inform recommendations for improving access and learning outcomes ([Wild, Flotten, Bos, & Stadtfeld, 2018](#); [Döring, Moder, Omar, & Otten, 2019](#)). Moreover, studies on digital learning and online education reinforce the need to address inequities in resource allocation and access for rural students ([Vermont, 2023](#); [Seba et al., 2019](#)).

4. Results and Discussions

4.1 Allocation of Education APBD in Banjarnegara Regency

The Pagedongan and Pandanarum subdistricts in Banjarnegara Regency exemplify systemic educational inequality. Data indicate that the allocation of the Special Allocation Fund (DAK) for education drastically decreased, from 22.03% in 2017 to only 0.72% in 2023 of the General Allocation Fund (DAU) ([Beatty, Berkhout, Bima, Pradhan, & Suryadarma, 2021](#)). Meanwhile, over 60% of Elementary Schools in these areas urgently require rehabilitation, highlighting the mismatch between actual needs and local government budget policies ([Hasan, 2021](#)).

Table 1. Banjarnegara Regency Education Fund (2017–2023) Rupiah

Year	Special Allocation Fund	Implementation of the Special Allocation Fund	General Allocation Fun	Percentage (%)
2017	20.213.514.000	19.253.664.000	87.394.600.000	22,03
2018	9.623.462.000	9.567.316.800	720.056.318.416	1,33
2019	19.040.343.000	18.723.573.600	732.131.182.164	2,56
2020	12.292.817.000	12.036.511.506	676.793.923.261	1,78
2021	25.360.582.000	12.036.511.506	741.782.729.004	3,09
2022	16.875.217.000	16.690.848.837	720.090.542.413	2,32
2023	5.231.920.000	5.229.776.000	722.936.387.039	0,72

From the Table 1, implementation of DAK, the average absorption rate is only 47.5% of total allocation, reflecting weak institutional capacity to manage the Regional Budget (APBD) and educational funding assistance from Central Java Province ([García, 2025](#)). The General Allocation Fund (DAU) of 722 billion in 2023 was mostly consumed by routine expenditures rather than school rehabilitation, contradicting Law No. 20 of 2003 on the National Education System, which mandates at least 20% of the budget for education ([Fazioli, 2024](#)). From a Rawlsian perspective, this demonstrates the failure of Banjarnegara Regency to uphold the equal liberty principle, as children's right to education is not met equally, and budget disparities exacerbate dropout rates among vulnerable groups ([Tan & Yates, 2017](#)).

The inequality observed also violates the Difference Principle, as resource allocation fails to benefit the most disadvantaged groups, leaving children in rural areas without the same educational opportunities as urban peers ([Beatty et al., 2021](#); [Forsey, & Davidson, 2020](#)). Addressing this issue requires reforming budget policies: allocating at least 20% of DAK to education, strengthening accountability through performance audits, and implementing priority programs such as emergency

school rehabilitation, equitable teacher distribution, and full scholarships for poor students (Seba, Mahajan, & Baldauf, 2019). Without such interventions, educational inequality in these subdistricts will perpetuate cycles of injustice and limit social mobility for rural youth (García, 2025).

4.2 Data on the Number of Elementary School and Junior High School Teachers from 2017–2024

The distribution of elementary school and junior high school teachers in Pagedongan Subdistrict during 2017–2024 shows significant and systemic inequality. The data reveal a drastic 32% decrease in elementary school teachers, from 158 in 2017 to 107 in 2024, while junior high school teachers decreased by 20%, from 59 in 2020 to 47 in 2024, during a period of rising need for educators in remote areas (Beatty, Berkhout, Bima, Pradhan, & Suryadarma, 2021). This situation contradicts Rawls' Difference Principle (1971), which allows inequality only if it benefits the least advantaged groups the most (Fazioli, 2024).

Table 2. Number of Elementary and Junior High School Teachers in Pagedongan Subdistrict, Banjarnegara Regency, 2017–2024

Year	Elementary School Teacher	Junior High School Teacher
2024	107	47
2023	142	53
2022	138	58
2021	111	56
2020	141	59
2019	127	52
2018	126	43
2017	158	44

From the Table 2, Several structural issues exacerbate this inequality. First, local government prioritizes elementary school over junior high school teacher allocation, creating a 2.5:1 distribution ratio, which violates Law No. 14 of 2005 concerning Teachers and Lecturers mandating equal distribution of educators across levels (Suryadarma, 2019). Second, teacher rotation is influenced by non-technical factors such as personal proximity, rather than school needs, leaving central schools with a 1:20 ratio and remote schools with 1:40. Only 30% of teachers with adequate competencies are willing to work in remote areas (Ahsan, 2020). Third, decentralization policies have not been fully implemented: incentives, local recruitment, and facility support are suboptimal, negatively affecting learning quality. Central area schools outperform remote schools by 15% in National Examination scores, and only 25% of junior high school graduates in remote villages continue to senior high school. Recruitment focus on elementary school, rotation mechanisms, retirements without replacement, population migration, declining student numbers, and lack of incentives collectively worsen disparities. Furthermore, unequal allocation of education budgets between elementary school and junior high school amplifies teacher distribution gaps (Efendi, 2022).

Based on these findings, the inequality in the number of elementary school and junior high school teachers in Pagedongan is caused by several main factors. First, the recruitment policy, which is more focused on the elementary school level, has resulted in a shortage of educators at the junior high school level (Martinez-Bravo, Perez-Arce, & Rozenas, 2017). Second, the teacher rotation mechanism, which is not based on empirical needs, exacerbates the inequality in teacher distribution (Hasan, 2021). Third, the high number of teacher retirements, without corresponding new recruitment, has significantly reduced the availability of educators. In addition to policy factors, demographic aspects contribute to this issue, including population migration, declining student numbers, and the migration of teachers to areas with better facilities (Fazioli, 2024). The lack of specific incentives for teachers in remote areas worsens the situation. Furthermore, the suboptimal implementation of decentralization and the unequal allocation of education budgets between elementary school and junior high school further widens the gap in teacher distribution ((Protsch & Solga, 2016); Tan, & Yates, 2017).

4.3 Data on the Number of Elementary School and Junior High School Teachers in Pandanarum Subdistrict, 2017–2024

Inequality in teacher distribution also occurs in Pandanarum Subdistrict. Data shows fluctuating numbers of elementary school teachers, with the highest number being 149 in 2022, which drastically decreased to 109 in 2024 ([Martinez-Bravo, Perez-Arce, & Rozenas, 2017](#)). Meanwhile, the number of junior high school teachers remained relatively low, ranging from 31 to 45 teachers throughout the 2017–2024 period.

Table 3. Number of Elementary and Junior High School Teachers in Pandanarum Subdistrict, Banjarnegara Regency, 2017–2024

Year	Elementary School Teacher	Junior High School Teacher
2024	109	42
2023	147	41
2022	149	43
2021	114	31
2020	141	33
2019	105	37
2018	105	35
2017	148	45

From the Table 3, The analysis shows that the differences in the distribution of elementary school and junior high school teachers in Pandanarum are primarily caused by ineffective recruitment and rotation policies. Many teacher rotations in Banjarnegara Regency are still based on non-technical considerations, such as ABS (Asal Bapak Senang), rather than actual needs. Additionally, the recruitment of new teachers with various Bachelor's degrees (S1) has not been able to compensate for the high number of retirements, resulting in a continuous decrease in the number of teachers ([Fazioli, 2024](#); [Hasan, & Suryadarma, 2021](#)). Geographical factors and accessibility also contribute to this situation. Pandanarum Subdistrict, which is relatively remote, is less attractive to teachers, especially due to limited facilities and minimal incentives between 2017 and 2024. As a result, schools in the central areas of the subdistrict receive more teachers, while schools in remote villages face teacher shortages. This situation contradicts the justice principles proposed by John Rawls, particularly the difference principle and equal opportunity, because this inequality harms the students who are in the most disadvantaged positions ([Forsey & Davidson, 2020](#)).

4.4 Data on the Number of Elementary school and Junior High School Infrastructure from 2017–2024

The disparity in the number of schools between Elementary school and Junior high school has serious implications for the accessibility of education. Graduates of elementary school in Pagedongan and Pandanarum Subdistricts face the choice of continuing their junior high school education at nearby schools. For parents of students living in remote villages, choosing a high-quality school is very difficult, and this limitation forces them to travel long distances to reach a school, facing financial barriers ([Beatty, Berkhout, Bima, Pradhan, & Suryadarma, 2021](#)). This condition has the potential to increase the dropout rate from the first education level, based on the available data. The number of State Elementary School and State Junior High School in Banjarnegara Regency from 2017 to 2024 shows that there are 22 State Elementary School, while only 3 State Junior High School ([Hasan, 2021](#); [Ahsan, 2020](#)).

Table 4. Number of State Schools in Pagedongan Subdistrict (2017–2024)

Tahun	Number of Public Elementary Schools	Number of Public Junior High Schools
2017–2024	22	3

Table 4 shows, the ratio of 22:3 indicates that for every eight elementary schools, there is only one junior high school. This disparity has the potential to create a gap in the continuity of education from elementary school to junior high school, particularly for students in remote areas. A similar condition also exists in Pandanarum Subdistrict. Based on the same data, there are 20 State Elementary School in the subdistrict, while only 3 State Junior High School exist (García, 2025). In addition to affecting access, this disparity also impacts the quality of education. The limited number of junior high school leads to an increase in student density in classrooms, which results in an imbalanced student-teacher ratio, limited classroom space, and restricted access to supporting facilities such as laboratories for junior high school and libraries. This situation directly reduces the effectiveness of the learning process (Fazioli, 2024).

Table 5. Number of State Schools in Pandanarum Subdistrict (2017–2024)

Tahun	Number of Public Elementary Schools	Number of Public Junior High Schools
2017–2024	20	4

Table 5 shows, when compared, the ratio of elementary school to junior high school in Pandanarum is 5:1, which is slightly better than in Pagedongan. However, this ratio still indicates a limitation in equal access to junior secondary education for all students (Tadmor, 2020; Tan, & Yates, 2017). From the perspective of educational justice according to John Rawls, this condition reflects a discrepancy with the principles of justice. First, the principle of equality, which demands that all students have the same opportunity to access junior high school, is clearly not met. Second, according to the Difference Principle, inequality can only be justified if it benefits the disadvantaged group. However, in this case, poor students and those living in remote areas face even greater barriers to obtaining secondary education (Seba, Mahajan, & Baldauf, 2019).

4.4.1 Comparison of Educational Infrastructure in Pagedongan and Pandanarum

To clarify the disparity, the following table presents a comparison of the number of state schools in both subdistricts (Beatty, Berkhout, Bima, Pradhan, & Suryadarma, 2021).

Table 6. Comparison of the Number of State Elementary and Junior High School in Pagedongan and Pandanarum Subdistricts (2017–2024)

Subdistrict	Number of Public Elementary Schools	Number of Public Junior High Schools	Elementary School to Middle School Ratio
Pagedongan	22	3	7,3 : 1
Pandanarum	20	4	5 : 1

The data in Table 6 shows that the ratio of elementary school to junior high school in both subdistricts is disproportionate. The ratio in Pagedongan is more skewed compared to Pandanarum, with a ratio of 7.3:1 versus 5:1 (Hasan, 2021). This means that the junior high school access issue is more severe for students in Pagedongan than in Pandanarum. This condition indicates that the continuity of education from elementary school to junior high school still faces structural obstacles, both due to the number of educational institutions and their geographic distribution (García, 2025). The inequality in educational infrastructure in Pagedongan and Pandanarum cannot be separated from several contributing factors. From the policy perspective, the local government has prioritized the development of elementary school over junior high school, leading to disproportionate educational budget allocation (Fazioli, 2024). From the demographic perspective, the uneven population distribution has resulted in the concentration of junior high school development in the central subdistrict areas, neglecting rural regions. Additionally, limited transportation infrastructure in hilly areas worsens access to secondary schools (Tadmor, 2020).

Another aspect that deepens the inequality is the availability of teachers. The number of SMP teachers is relatively fewer compared to elementary school teachers, so junior high schools face dual

challenges in terms of both quantity and quality of teaching staff . The weak synergy among stakeholders, including the central government, local government, private sector, and community, also hinders the acceleration of junior high school development in these areas. The analysis of this educational infrastructure inequality can be understood through John Rawls' theory of justice. The Fair Equality of Opportunity Principle demands that all individuals have an equal opportunity to access education. However, the situation in Pagedongan and Pandanarum shows that poor students living in remote areas must travel long distances, which significantly reduces their equal opportunity for education. Furthermore, the Difference Principle states that inequality is only acceptable if it benefits the least advantaged groups. In this case, the limited number of junior high school schools does not provide any benefit to students in remote areas; instead, it exacerbates the barriers they face ([García, 2025](#)). Therefore, education development policies in these subdistricts must be directed toward benefiting the disadvantaged groups such as poor students and those living far from the subdistrict centers so that the principle of educational justice can be realized ([Suryadarma, 2019](#)).

4.5 Data on the Number of School-Age Children (7-12 Years for Elementary school and 13-15 Years for Junior High School)

4.5.1 General Overview of School-Age Children in Pagedongan Subdistrict

Equal access to education is a primary indicator of achieving social justice in the education system ([Beatty, Berkhout, Bima, Pradhan, & Suryadarma, 2021](#)). Data from Pagedongan Subdistrict indicates a disparity between the number of children in the elementary school age range (7–12 years) and the junior high school age range (13–15 years) ([Hasan, 2021](#)).

Table 6. Comparison of the Number of State Elementary and Junior High School in Pagedongan and Pandanarum Subdistricts (2017–2024)

Subdistrict	Number of Public Elementary Schools	Number of Public Junior High Schools	Elementary School to Middle School Ratio
Pagedongan	22	3	7,3 : 1
Pandanarum	20	4	5 : 1

Table 6 shows that the number of children in the junior high school age group is consistently higher than in the elementary school age group. For example, in 2024, there were 2,974 children in the elementary school age group, while 727 children were in the junior high school age group ([García, 2025](#)). This difference indicates that most elementary school graduates do not continue to junior high school. The number of state elementary school in Pagedongan is only three, while there are 22 state elementary school. The uneven distribution of schools causes elementary school graduates in remote villages to face geographical barriers when continuing to junior high school. Rawls' Equal Liberty Principle is violated because not all children have equal access to education due to the limited facilities available ([Fazioli, 2024](#)).

Interviews with teachers revealed that transportation costs, uniforms, and other school necessities are significant barriers ([Tadmor, 2020](#)). This condition pressures children from poor families not to continue to junior high school. According to the Difference Principle, education policies should benefit the poor more, but the reality shows otherwise. Focus Group Discussions (FGD) indicated that some members of the community still view SMP education as not providing immediate economic benefits. As a result, many children are directed to work and help their families. This decreases the transition rate from elementary school to junior high school, reflecting social barriers that worsen educational inequality ([Forsey & Davidson, 2020](#)). The allocation of the local education budget is more focused on improving elementary school facilities rather than developing junior high school. This strategy contradicts the spirit of regional autonomy, as the need for secondary education in remote villages is overlooked. A similar condition is observed in Pandanarum Subdistrict, although the disparity in the number of school-age children is relatively smaller.

Table 7. Number of School-Age Children (Elementary and Junior High School) in Pagedongan Subdistrict (2017–2024)

Year	Elementary School (ages 7–12)	Junior High School (ages 13–15)
2024	2.974	727
2023	3.108	746
2022	2.356	693
2021	2.407	697
2020	3.247	681
2019	3.424	706
2018	3.587	698
2017	3.574	910

From the Table 7, when compared to Pagedongan, the elementary school-junior high school ratio in Pandanarum is more balanced. For example, in 2024, there were 1,656 children in the elementary school age group and 740 children in the junior high school age group, leading to a better transition rate compared to Pagedongan (Efendi, 2022). However, demographic factors, urbanization, and parental preferences remain causes of the declining number of students (Setiawati, & Fauzi, 2024; Muhammad, Lase, Waruwu, & Siallagan, 2023). According to the Fair Equality of Opportunity Principle, every child has an equal right to continue their education to junior high school. However, the data shows structural, geographical, and economic barriers that make it difficult for children from poor families in remote villages to access secondary education (Hasan & Suryadarma, 2021). From the Difference Principle perspective, education policies should favor the most vulnerable groups, such as the construction of new junior high school in remote areas or providing transportation subsidies. However, the implementation of policies is still biased towards the subdistricts, which exacerbates the inequality (Wijayati, Damanik, & Prawirosastro, 2025).

4.6 Distribution of Elementary School and Junior High School Graduates

4.6.1 Overview of Elementary School and Junior High School Graduates in Pagedongan Subdistrict

The data on elementary school and junior high school graduates in Pagedongan Subdistrict from 2017–2024 shows significant fluctuations at the elementary school level, with the number of graduates changing dramatically year on year. In 2017, the number of graduates was recorded at 408 students, then drastically decreased to 277 students in 2019. That figure significantly surged to 727 students in 2022, before dropping again to 362 students in 2024. This fluctuation was accompanied by a relatively consistent dropout rate, even peaking in 2021 with 86 students not completing their primary education (Beatty, Berkhout, Bima, Pradhan, & Suryadarma, 2021).

Table 8. Number of School-Age Children (Elementary and Junior High School) in Pandanarum Subdistrict (2017–2024)

Year	Elementary School (ages 7–12)	Junior High School (ages 13–15)
2024	1.656	740
2023	1.676	727
2022	1.687	759
2021	1.772	680
2020	1.758	655
2019	2.023	957
2018	2.116	961
2017	2.113	959

Table 9. Graduates and Dropouts Elementary and Junior High School in Pagedongan Subdistrict (2017–2024)

Year	Elementary school graduate	Elementary School Dropout	Junior high school graduate	Junior High School Dropout
2024	362	63	970	45
2023	294	59	718	29
2022	727	70	781	31
2021	363	86	802	30
2020	400	75	782	30
2019	277	25	774	29
2018	359	4	243	–
2017	408	4	216	4

Table 8 and Table 9 show that at the junior high school level, the graduation trend indicates a significant increase. In 2017, the number of graduates was only 216 students, but by 2024, this number increased more than four times to 970 students. However, a drastic spike occurred during the 2018–2019 period, rising from 243 graduates to 774 graduates, which raises suspicions of possible administrative factors or improvements in data collection systems that require further investigation. The situation in Pandanarum Subdistrict shows a pattern almost identical to Pagedongan. The number of elementary school graduates was 278 students, then decreased to 277 students in 2019, before rising again to 362 students in 2024, and finally reaching 750 students (Efendi, 2022). This demonstrates an improvement in participation in secondary education, although the high school dropout rate remains a serious issue.

The fluctuations in the number of graduates and the high school dropout rate in both subdistricts can be explained by several factors. First, the economic factor plays a significant role, as most families in Pagedongan and Pandanarum work in the agriculture and manual labor sectors. Economic limitations force some children to leave school to help support their families. This condition clearly contradicts John Rawls' Difference Principle, as education policies should protect and provide greater benefits for the poor (Fazioli, 2024). Second, the geographical factor exacerbates the situation. The remote location of villages with difficult access roads makes it challenging for elementary school graduates to continue their education to junior high school. This geographical barrier violates the Fair Equality of Opportunity principle because not all children have equal access to education (Hasan & Suryadarma, 2021).

Additionally, the socio-cultural factor also plays an important role. Practices like early marriage and the culture of working from a young age are still quite prevalent in rural areas, which leads to a high school dropout rate. This reflects the weakness of social interventions and the lack of educational policies based on local culture (Forsey & Davidson, 2020). From a policy perspective, the distribution of education funds remains unequal. Government programs like BOS and PIP have been implemented, but their effectiveness is not optimal due to weak monitoring and evaluation on the ground (Beatty et al., 2021). The low number of junior high school graduates and upper secondary education directly impacts the quality of human resources in this area. Most of the workforce only has a basic or junior high school education, which significantly limits their access to formal, professional jobs with decent pay. As a result, the community remains trapped in a cycle of poverty, as low education levels restrict opportunities for better well-being (Gertler, Heckman, Pinto, Zanolini, Vermeersch, & Walker, 2021).

When viewed from John Rawls' perspective on justice, the situation in Pagedongan and Pandanarum clearly shows significant injustice. The Equal Liberty Principle is not met because children in remote villages do not have real freedom to continue their education due to geographical barriers. The Difference Principle is also not realized, as educational inequality does not benefit the least

advantaged group namely, children from poor families. On the contrary, they are the most disadvantaged group, as evidenced by the high school dropout rate. Moreover, the concept of justice as equal opportunity demands affirmative policies from the government. The construction of new junior high school in remote areas, provision of transportation subsidies, scholarship programs, and incentives for teachers willing to work in isolated areas are concrete steps that must be taken for educational justice to truly materialize (Tadmor, 2020). The low number of junior high school graduates and above directly impacts the quality of human resources in Pagedongan and Pandanarum. Most of the workforce only has a basic or junior high school education, making their access to formal, well-paying jobs very limited. This condition creates a cycle of poverty that is hard to break because low education levels lead to low social and economic mobility.

Table 10. Elementary and Junior High School Graduates and Dropouts in Pandanarum Subdistrict (2017–2024)

Year	Elementary school graduate	Elementary School Dropout	Junior high school graduate	Junior High School Dropout
2024	362	63	750	35
2023	294	59	690	37
2022	727	70	720	39
2021	363	86	650	30
2020	400	75	630	25
2019	277	25	680	10
2018	274	3	265	10
2017	278	10	252	4

In Table 10, analysis using John Rawls' theory of justice shows that the Equal Liberty Principle is not realized because children in remote villages do not have true freedom to continue their education due to geographical barriers. Similarly, the Difference Principle is not met, as educational inequality does not provide benefits for disadvantaged children; rather, they are the most harmed by this inequality. Therefore, justice as equal opportunity demands affirmative policies, such as the construction of new public junior high school in remote areas, scholarship subsidies, and incentives for teachers to be placed in isolated villages. This policy aligns with Rawls' objective to prioritize the most disadvantaged groups in society (Fazioli, 2024; Tadmor, 2020).

Table 11. Social and Economic Implications of Junior High School Graduates and Above

Aspect	Current Situation	Social and Economic Impacts
Education	Most graduates have only completed elementary or junior high school	Low basic skills among the population
Employment	Dominated by the informal sector (farm laborers, manual laborers)	Low and unstable income
Social Mobility	Limited access to higher education levels	Stunted social and economic status improvement
Poverty	Low welfare levels, difficulty in meeting education costs	The poverty cycle is difficult to break
Regional Development	Low competitiveness of human resources	Slow regional competitiveness improvement

Table 11 shows the application of Rawls' principles to the educational context in Pagedongan and Pandanarum, highlighting that children in remote villages lack equal access to junior high school reflecting a failure to uphold the Equal Liberty principle. Disparities caused by geographical and economic barriers indicate that the Fair Equality of Opportunity principle is not met, while poor and remote students face the greatest challenges, violating the Difference Principle since inequalities do not benefit the most disadvantaged. The table also identifies affirmative policy measures, such as

building new junior high school, providing transportation subsidies, scholarships, and teacher incentives, as potential strategies to implement distributive justice in line with Rawls' framework.

5. Conclusions

5.1 Conclusion

This research reveals the significant education disparity in Pagedongan and Pandanarum subdistricts, resulting from the interaction of structural, economic, and political factors. The findings show a stark disparity in teacher distribution, with remote areas having a student-teacher ratio of 1:40, far exceeding the national standard. Infrastructure is also a major concern, with only 15% of schools meeting basic facility standards. The allocation of the education budget exacerbates these inequalities, with a drastic decline in DAK education funding, from 22.03% in 2017 to just 0.72% in 2023. This situation fundamentally violates John Rawls' difference principle, as it disproportionately affects marginalized communities. The decentralization policy ironically widens the gap due to urban-biased budgets, weak local institutional capacity, and political patronage distorting resource distribution. The human cost is severe, with high transportation costs and cultural practices like early marriage hindering students' ability to access education, perpetuating a cycle of poverty. Only 1 in 4 rural junior high school graduates continue to high school. This study suggests several reforms, including affirmative policies to allocate 30% of education budgets for remote areas, the introduction of teacher rotation systems based on merit, and community-based solutions such as community schools and transport subsidies. Strengthening governance and participatory budgeting is essential for ensuring equitable and sustainable educational access.

5.2 Research Limitations

This study has some limitations. First, it is a conceptual study and based on literature review, which does not cover the empirical aspects of how Islamic economics and environmental ethics from the Qur'an are applied in contemporary Muslim societies' sustainable development. Second, the study is limited to thematic analysis of Qur'anic verses and does not involve insights from environmental science, public policy, or development economics. Additionally, the sample size of respondents is small, which may limit the generalizability of findings.

5.3 Suggestions and Directions for Future Research

Future research should explore empirical approaches, utilizing case studies or field surveys to observe the implementation of Qur'anic principles in sustainable development, especially at community levels, Islamic financial institutions, and local governments. Further studies could involve multidisciplinary research, combining insights from tafsir, Islamic economics, and environmental science to create a contextualized Islamic development model. Future studies could also investigate how public policies based on Qur'anic values influence national development planning, promoting sustainability and justice.

Acknowledgement

Sincere gratitude is extended to Drs. Ir. Djasri, S.T., M.M., M.T., the Regent of Banjarnegara for the period 2001-2011, for providing valuable insights into the persistent challenges in Banjarnegara's education sector, which have remained unresolved even after his retirement. Deep appreciation is also given to the late Hj. Ambar Dewi, whose strength and support during the two years following her passing provided guidance during a difficult time. Her encouragement continues to inspire from above. Special thanks are also due to the Head of the Department of Education, the Head of the DPPKAD, and the heads of Pagedongan Subdistrict and Pandanarum Subdistrict, whose cooperation and assistance in facilitating access to data for this field research were invaluable.

Author Contributions

MFAc conceptualized the study, designed the methodology, and supervised the overall research process. He provided guidance on data collection, fieldwork coordination, and ensured access to relevant documents and stakeholders. Additionally, MFA contributed to the analysis, interpretation of findings, and drafting of the manuscript.

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