

EDUCATIONAL ACCESS DISPARITIES AND SOCIAL WELFARE OUTCOMES IN REMOTE INDIGENOUS SOCIETIES: A CASE OF THE DAYAK MERATUS

DESIGUALDADES NO ACESSO À EDUCAÇÃO E RESULTADOS EM TERMOS DE BEM-ESTAR SOCIAL EM SOCIEDADES INDÍGENAS ISOLADAS: O CASO DOS DAYAK MERATUS

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Trianto*

*Lambung Mangkurat University, Banjarmasin, South Kalimantan, Indonesia

Orcid: <https://orcid.org/0009-0003-2334-5407>
2441212710007@mhs.ulm.ac.id

Budi Suryadi*

*Lambung Mangkurat University, Banjarmasin, South Kalimantan, Indonesia

Orcid: <https://orcid.org/0000-0002-9486-8219>
budisuryadi@ulm.ac.id

Nurul Azkar*

*Lambung Mangkurat University, Banjarbaru, South Kalimantan, Indonesia

nurulazkar@ulm.ac.id

Setia Budhi*

*Lambung Mangkurat University, Banjarmasin, South Kalimantan, Indonesia

Orcid: <https://orcid.org/0000-0001-7482-2689>
setiabudhi.fisip@ulm.ac.id

Yunita Sopiana*

*Lambung Mangkurat University, Banjarmasin, South Kalimantan, Indonesia

Orcid: <https://orcid.org/0000-0002-3403-9224>
yunitasopiana@ulm.ac.id

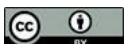
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Abstract

Educational inequality remains a persistent challenge among remote Indigenous communities, where the formal availability of schools does not necessarily translate into effective educational participation or improved social welfare outcomes. Existing studies have largely examined educational access as a sector-specific issue, offering limited understanding of how disparities in access function as structural determinants of multidimensional welfare deprivation. This study addresses this gap by examining educational access disparities and their implications for social welfare within the Dayak Meratus Remote Indigenous Community in Hampang District, Kotabaru Regency, Indonesia. Using a qualitative descriptive case study approach, data were collected through in-depth interviews, field observations, focus group discussions, and document analysis involving

Resumo

A desigualdade educacional continua sendo um desafio persistente entre as comunidades indígenas remotas, onde a disponibilidade formal de escolas não se traduz necessariamente em participação educacional efetiva ou em melhores resultados de bem-estar social. Os estudos existentes têm examinado, em grande parte, o acesso à educação como uma questão específica do setor, oferecendo uma compreensão limitada de como as disparidades no acesso funcionam como determinantes estruturais da privação multidimensional de bem-estar. Este estudo aborda essa lacuna ao examinar as disparidades no acesso à educação e suas implicações para o bem-estar social na Comunidade Indígena Remota Dayak Meratus, no Distrito de Hampang, Regência de Kotabaru, Indonésia. Utilizando uma abordagem de estudo de caso descritivo qualitativo, os dados foram



community leaders, teachers, parents, and local government officials. Educational access is conceptualized as a multidimensional construct encompassing physical accessibility, educational continuity across levels, socio-economic feasibility, and institutional support. Data were analyzed using a thematic analysis framework supported by contextual quantitative indicators. The findings reveal that although primary education is formally available, educational discontinuity at the secondary level constitutes a critical structural barrier. Geographic isolation, limited transportation infrastructure, household economic vulnerability, and weak institutional coordination significantly restrict sustained school participation. Limited educational access further constrains economic opportunities, reduces access to health and social services, and perpetuates intergenerational welfare vulnerability. The study also highlights the dual role of local institutions, where strong social cohesion provides opportunities for community-based educational empowerment, while institutional fragmentation limits the sustainability of such initiatives. This study contributes to the literature by reframing educational access as a structural determinant of social welfare rather than merely an educational outcome in remote Indigenous settings. The findings provide policy-relevant insights for culturally responsive, community-based, and integrated education and welfare interventions in marginalized regions.

Keywords: Educational Access Disparities. Social Welfare. Remote Indigenous Communities. Educational Continuity. Qualitative Case Study. Dayak Meratus.

coletados por meio de entrevistas em profundidade, observações de campo, discussões em grupos focais e análise de documentos envolvendo líderes comunitários, professores, pais e autoridades do governo local. O acesso à educação é conceituado como um constructo multidimensional que abrange acessibilidade física, continuidade educacional entre os níveis, viabilidade socioeconômica e apoio institucional. Os dados foram analisados utilizando uma estrutura de análise temática apoiada por indicadores quantitativos contextuais. Os resultados revelam que, embora o ensino fundamental esteja formalmente disponível, a descontinuidade educacional no nível médio constitui uma barreira estrutural crítica. O isolamento geográfico, a infraestrutura de transporte limitada, a vulnerabilidade econômica das famílias e a fraca coordenação institucional restringem significativamente a participação escolar sustentada. O acesso limitado à educação restringe ainda mais as oportunidades econômicas, reduz o acesso a serviços de saúde e sociais e perpetua a vulnerabilidade intergeracional em termos de bem-estar. O estudo também destaca o papel duplo das instituições locais, onde uma forte coesão social oferece oportunidades para o empoderamento educacional baseado na comunidade, enquanto a fragmentação institucional limita a sustentabilidade de tais iniciativas. Este estudo contribui para a literatura ao reestruturar o acesso à educação como um determinante estrutural do bem-estar social, em vez de meramente um resultado educacional em contextos indígenas remotos. Os resultados fornecem insights relevantes para políticas de intervenções educacionais e de bem-estar culturalmente sensíveis, baseadas na comunidade e integradas em regiões marginalizadas.

Palavras-chave: Disparidades no Acesso à Educação. Bem-estar Social. Comunidades Indígenas Remotas. Continuidade Educacional. Estudo de Caso Qualitativo. Dayak Meratus.

1 INTRODUCTION

Education is widely recognized as a central determinant of social welfare, human development, and long-term economic resilience. Contemporary global studies consistently demonstrate that unequal access to education contributes to persistent poverty, limited labor market participation, and reduced social mobility, particularly among marginalized and Indigenous populations [1,2]. Despite international and national commitments to inclusive education, significant disparities continue to persist in remote and geographically isolated regions, where structural constraints hinder effective educational participation and long-term educational continuity [3].

Existing international literature on education in remote and Indigenous contexts has predominantly focused on infrastructural limitations, geographic isolation, and shortages of qualified teachers as the primary barriers to educational access [4,5]. More recent studies emphasize that educational inequality is multidimensional and shaped not only by the physical availability of schools but also by affordability, cultural relevance, continuity across educational levels, and household socio-economic vulnerability [3,6,7]. However, much of the existing research examines educational outcomes in isolation without systematically linking disparities in educational access to broader social welfare implications.

In Indonesia, empirical studies on Remote Indigenous Communities (Komunitas Adat Terpencil/KAT) have primarily focused on policy implementation, service delivery limitations, and sector-specific program evaluations [8,9]. Although these studies acknowledge persistent educational challenges, few provide an integrated analytical framework connecting educational access disparities with multidimensional welfare outcomes such as poverty persistence, health vulnerability, and intergenerational inequality. Moreover, existing research frequently relies on aggregate regional statistics, providing limited understanding of micro-level community dynamics.

Research specifically focusing on the Dayak Meratus Indigenous Community remains limited. Available documentation, including social mapping reports, generally presents descriptive indicators related to literacy rates, school distance, and infrastructure availability. These studies rarely distinguish between nominal educational access—the formal presence of schools—and effective educational access, which includes sustained

participation, educational continuity, and progression to secondary education [10,11]. This conceptual ambiguity restricts analytical understanding of how educational exclusion operates within remote Indigenous settings.

This study is also informed by broader theoretical perspectives on educational inequality and social welfare. From the perspective of the capability approach proposed by Amartya Sen, educational access is not merely a matter of school enrollment but a fundamental capability that shapes individuals' opportunities, agency, and long-term well-being. Limited educational continuity restricts substantive freedoms and reinforces multidimensional deprivation within marginalized communities. In addition, social exclusion theory helps explain how geographic isolation, institutional limitations, and socio-economic vulnerability collectively reproduce structural inequalities across generations. By integrating these perspectives, this study conceptualizes educational access as both a developmental capability and a structural determinant of welfare resilience in remote Indigenous contexts.

Addressing these gaps, the present study adopts a qualitative case study approach to examine educational access disparities in the Dayak Meratus community of Hampang District, Kotabaru Regency. Educational access is operationalized as a multidimensional concept encompassing physical accessibility, institutional continuity, socio-economic feasibility, and institutional support. By explicitly linking educational access disparities with social welfare outcomes—including employment opportunities, health service utilization, and intergenerational poverty—the study provides empirically grounded insights into education as a structural determinant of welfare in remote Indigenous contexts.

The contribution of this study lies in its integrative perspective, combining qualitative field evidence with supporting quantitative indicators to move beyond descriptive analysis. By situating local empirical findings within broader international debates on educational inequality and Indigenous welfare, this research extends existing scholarship and offers policy-relevant insights for culturally responsive and community-based educational interventions in marginalized regions. As shown in Table 1, elementary education facilities are formally available across villages in Hampang District, although accessibility conditions vary considerably based on geographic location and transportation infrastructure. Table 2 demonstrates the substantial distances that students

must travel to access junior and senior high schools, highlighting the structural discontinuity between primary and secondary education within the study area. Literacy and educational attainment patterns within Hampang District further illustrate the persistence of educational disparities across villages, as presented in Table 3. To contextualize the educational conditions of the Dayak Meratus Remote Indigenous Community, Table 4 compares key educational indicators between the community and the broader Kotabaru Regency averages. Figure 1 visually illustrates the disparity between educational indicators within the Dayak Meratus community and the Kotabaru Regency averages, particularly in literacy levels, dropout rates, average years of schooling, and teacher–student ratios.

This study aims to achieve the following objectives in light of the stated research gaps regarding the poor integration between educational access analysis and social welfare outcomes in remote indigenous contexts:

1. To examine the multidimensional nature of educational access within the Dayak Meratus Remote Indigenous Community in Hampang District by analyzing physical reachability, educational continuity across primary and secondary levels, and socio-economic feasibility of school participation.
2. To identify and analyze the structural, geographical, and socio-cultural factors that contribute to disparities in effective educational access, with a particular focus on the transition from primary to secondary education.
3. To assess the implications of educational access disparities for social welfare outcomes, including economic participation, access to health and social services, and patterns of intergenerational vulnerability within the community.
4. To explore how local institutional arrangements and community practices influence educational participation and welfare resilience in remote indigenous settings.
5. To generate empirically grounded policy insights for culturally responsive and community-based educational interventions that address educational inequality as a structural determinant of social welfare in remote indigenous regions.

Table 1*Access to Basic Education Services in Hampang District*

Village	Distance to Nearest Elementary School (km)	Number of Students (HH)	% Access
Hulu Sampanahan	1,72	40	100%
Takau	6,09	32	100%
Katui	16,71	9	100%
Limbur	11,6	21	100%
Muara Urie	25,8	102	100%

Source: Laporan Akhir Pemetaan Sosial Komunitas Adat Terpencil (KAT) Hampang (2023)

Table 2*Distance to Junior High and Senior High Schools in Hampang District*

Village	Distance to Junior High (km)	Distance to Senior High (km)	Average Distance (km)
Hulu Sampanahan	33,23	44,37	37,03
Takau	27,26	38,30	31,67
Katui	28,25	39,30	32,00
Limbur	17,62	28,68	21,37
Muara Urie	46,69	57,97	50,59

Source: Laporan Akhir Pemetaan Sosial Komunitas Adat Terpencil (KAT) Hampang (2023)

Table 3*Literacy Rate in Hampang District*

Village	% Literacy Rate	Not Finished Elementary	Finished Elementary	Finished Junior High	Finished Senior High	Other Education
Hulu Sampanahan	83,94	9	15	16	42	13
Limbur	86,44	12	15	14	22	28
Muara Urie	87,75	10	13	12	36	19

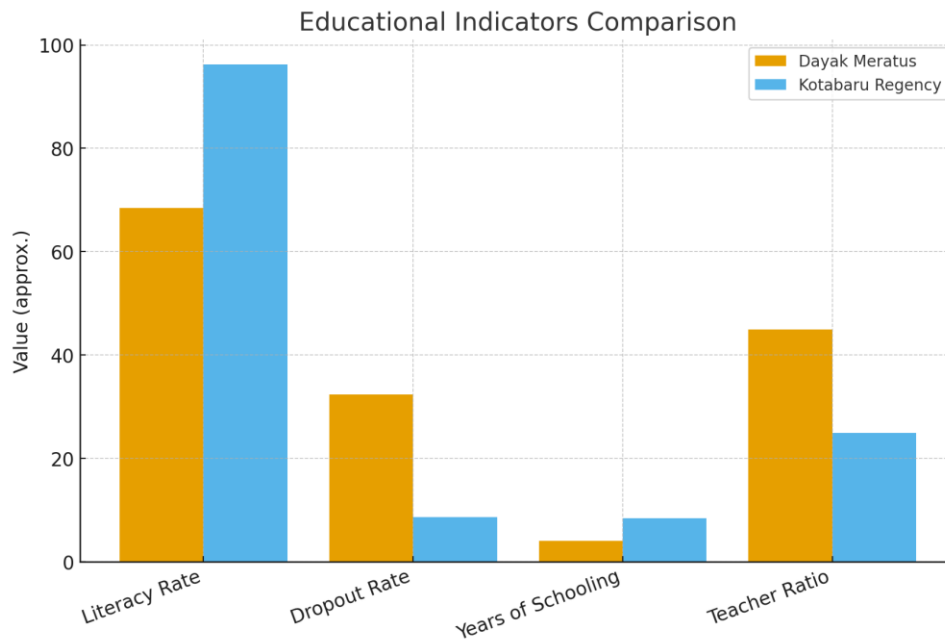
Source: Laporan Akhir Pemetaan Sosial Komunitas Adat Terpencil (KAT) Hampang (2023)

Table 4*Presents the summary of key educational indicators in the Dayak Meratus Remote Indigenous Community compared to Kotabaru Regency averages.*

Indicator	Dayak Meratus KAT	Kotabaru Regency	Source
Literacy Rate (%)	68.5	96.2	Laporan Akhir Pemetaan Sosial Komunitas Adat Terpencil (KAT) Hampang (2023)
Dropout Rate SD-SMP (%)	32.4	8.7	Laporan Akhir Pemetaan Sosial Komunitas Adat Terpencil (KAT) Hampang (2023)
Average Years of Schooling	4.1	8.5	BPS Kotabaru (2023)
Teacher-Student Ratio	1:45	1:25	Dinas Pendidikan Kotabaru (2023)

Figure 1

Comparison of key educational indicators between Dayak Meratus KAT and Kotabaru Regency.



2 METHODOLOGY

2.1 Research design

In order to investigate educational access discrepancies and their effects on social welfare within the Dayak Meratus Remote Indigenous Community in Hampang District, Kotabaru Regency, South Kalimantan, this study used a qualitative descriptive case study methodology. In order to provide a comprehensive and contextualized knowledge of how educational access functions in a geographically remote indigenous setting where structural, sociocultural, and institutional elements interact, a case study design was used.

The qualitative approach is particularly appropriate for capturing community perceptions, lived experiences, and institutional practices that cannot be adequately explained through quantitative indicators alone. Quantitative data are used in this study as supporting secondary evidence to strengthen analytical interpretation rather than as the primary methodological framework.

2.2 Fieldwork scope, participants, and analytical validity

2.2.1 *Fieldwork duration and research scope*

The empirical foundation of this study is derived from extensive social mapping fieldwork conducted in Hampang District, Kotabaru Regency, as part of the Final Report of the Social Mapping of the Dayak Meratus remote indigenous community. Field activities were carried out over a multi-stage fieldwork period in 2023, encompassing preparatory activities, intensive field engagement, and post-field validation stages.

The fieldwork involved:

1. preliminary coordination and research permitting;
2. household-level surveys and interviews;
3. participatory focus group discussions (FGDs);
4. direct field observations; and
5. documentation and spatial analysis.

This prolonged and staged engagement enabled the researchers to capture the seasonal, social, and institutional dynamics that affect educational access and welfare conditions.

2.2.2 *Participants and data sources*

Primary data were drawn from a purposively selected sample of 295 households (Kepala Keluarga/KK) belonging to the Dayak Meratus Remote Indigenous Community across three main village clusters: Hulu Sampanahan, Limbur, and Muara Urie, representing a total estimated KAT population of 994 individuals as seen in Table 1-3.

In addition to household respondents, qualitative insights were obtained from key informants, including:

1. village heads and customary leaders (tokoh adat);
2. elementary and junior secondary school teachers;
3. parents of school-aged children;
4. sub-district and village-level officials involved in education and social welfare services.

Participatory Focus Group Discussions (FGDs) were conducted in customary halls (balai adat) across multiple KAT settlements, including Hulu Sampanahan, Limbur (Hawakai and Maisi), and Muara Urie, allowing collective reflection and cross-verification of findings among community members and stakeholders.

2.2.3 Data collection techniques

Consistent with participatory social mapping principles, data collection employed methodological triangulation, integrating:

1. Household surveys and semi-structured interviews, focusing on education access, schooling continuity, and welfare conditions;
2. Direct field observations, documenting infrastructure, settlement patterns, and school accessibility;
3. FGDs, used to validate emerging themes and identify community-prioritized issues; and
4. Document analysis, including demographic statistics, education service data, and spatial accessibility indicators.

This combination ensured that both individual experiences and collective perspectives were adequately represented.

2.2.4 Analytical validity and trustworthiness strategy

To strengthen analytical validity and credibility, the study adopted multiple validation strategies grounded in the original social mapping methodology:

2.2.4.1 Data triangulation

Findings were cross-checked across interviews, FGDs, observations, and documentary sources to minimize single-source bias and enhance interpretive reliability.

2.2.4.2 Participatory validation

Preliminary findings and thematic interpretations were discussed during FGDs with community members and local stakeholders, enabling confirmation, correction, and contextual refinement of results.

2.2.4.3 Systematic thematic analysis

Qualitative data were analyzed through iterative coding and theme development, guided by predefined analytical dimensions (education access, welfare outcomes, institutional roles) and refined inductively based on field evidence.

2.2.4.4 Contextual quantitative support

Quantitative indicators—such as school distance, literacy levels, and welfare-related variables—were used descriptively to support qualitative interpretations, not for statistical generalization.

2.2.4.5 Documentation and audit trail

The research process followed formal stages of social mapping, from preparatory design to post-field reporting and policy follow-up, providing a clear audit trail of analytical decisions

2.2.5 *Methodological contribution*

By integrating large-scale household coverage (295 KK) with in-depth qualitative engagement and participatory validation, this study strengthens methodological rigor while remaining sensitive to indigenous socio-cultural contexts. The approach enhances the credibility of findings and supports analytical transferability to other remote indigenous settings with similar structural characteristics.

2.3 Study Area and Case Selection

Hampang District was purposively selected as the research site due to its classification as a Remote Indigenous Community (KAT) area and its persistent educational challenges, as documented in official social mapping reports. The Dayak Meratus community in this district represents a relevant and under-researched case of indigenous populations experiencing structural educational exclusion, particularly at the secondary education level.

The case selection allows for micro-level analysis of educational access disparities and their broader welfare implications within a specific socio-cultural and ecological context.

2.4 Informants and Sampling Strategy

Data were collected from multiple stakeholder groups using a purposive sampling technique, based on their relevance to educational access and social welfare dynamics.

Informants included:

- Village heads and customary leaders, who provided insights into community governance and local socio-cultural norms;
- Elementary and junior high school teachers, representing institutional perspectives on education delivery;
- Parents and caregivers, particularly those with school-aged children, should capture household-level constraints and decision-making processes;
- Local government officials from village and district levels are involved in education and social welfare programs.
- In total, informants were selected based on three criteria:
- direct involvement in education or social welfare issues,
- familiarity with local community conditions, and
- willingness to participate voluntarily in the study.

2.5 Data collection methods

Data collection was carried out between 2023 and 2024 using multiple qualitative research techniques to obtain comprehensive and contextually grounded information regarding educational access and social welfare conditions within the Dayak Meratus community.

2.5.1 *In-depth interviews*

Semi-structured interviews were conducted to explore participants' perceptions of educational access, barriers to school participation, and their perceived welfare impacts. Interview guides were developed around key themes derived from the research objectives, including school accessibility, educational continuity, economic constraints, and access to social services. Each interview lasted between 45 and 90 minutes and was conducted in Indonesian, with contextual clarification provided when local terms were used.

2.5.2 *Field observations*

Non-participant observations were undertaken to document school conditions, learning facilities, transportation routes, and daily community activities related to education. Observations enabled triangulation between reported experiences and actual field conditions, particularly regarding physical accessibility and infrastructure limitations.

2.5.3 *Document analysis*

Secondary data were obtained from official documents, including the Final Report of the Social Mapping of the Dayak Meratus Community, education statistics from Kotabaru Regency, and relevant policy documents. These sources provided quantitative indicators such as school distance, literacy rates, dropout levels, and poverty status, which were used to contextualize qualitative findings.

2.6 Operational DEFINITION OF EDUCATIONAL ACCESS

In this study, educational access is conceptualized as a multidimensional construct, encompassing:

- A. Physical accessibility – distance, transportation availability, and infrastructure conditions;
- B. Educational continuity – sustained participation and transition from primary to secondary education;
- C. Socio-economic feasibility – household capacity to support schooling costs and opportunity costs;
- D. Institutional accessibility – availability of teachers, facilities, and culturally relevant learning environments.

This operationalization addresses conceptual ambiguities identified in previous studies and aligns directly with the research objectives.

2.7 Data Analysis Procedure

Data analysis followed a thematic analysis approach, conducted through the following stages:

- A. Data familiarization – transcription and repeated reading of interview notes and observation records;
- B. Initial coding – identification of recurring patterns related to access barriers, welfare impacts, and institutional dynamics;
- C. Theme development – grouping codes into broader analytical themes such as geographic isolation, educational discontinuity, economic vulnerability, and intergenerational effects;
- D. Interpretation and triangulation – cross-validating interview data with observations and documentary evidence to enhance analytical robustness.

Quantitative indicators were analyzed descriptively and integrated into the thematic interpretation to support the qualitative findings, rather than to generalize statistically.

2.8 Research Trustworthiness

To ensure methodological rigor, the study applied four criteria of qualitative trustworthiness:

- A. Credibility through data triangulation across interviews, observations, and documents;
- B. Transferability by providing detailed contextual descriptions of the study area;
- C. Dependability through systematic documentation of data collection and analysis procedures;
- D. Confirmability by grounding interpretations in empirical evidence rather than researcher assumptions.

2.9 Ethical considerations

Ethical principles were upheld throughout the research process. All informants participated voluntarily and were informed about the purpose of the study. Anonymity and confidentiality were maintained by omitting personal identifiers. The research respected local cultural norms and customary leadership structures during field engagement.

3 RESULTS AND DISCUSSION

In order to convey empirical findings on educational disparity and social wellbeing in remote and Indigenous environments, this part structured on field-based evidence with recent scholarly literature. The research gap regarding the relationship between educational access inequities and social welfare outcomes is addressed, and the topic is organized thematically in accordance with the updated research aims.

3.1 Educational access as a multidimensional and unequal process

The findings indicate that educational access within the Dayak Meratus community cannot be understood solely through the formal availability of educational

institutions. Although elementary schools are officially present in several villages, effective educational participation remains constrained by transportation limitations, difficult geographical terrain, seasonal isolation, and limited continuity beyond the primary level. These conditions demonstrate that educational access is shaped not only by institutional presence but also by the sustainability and feasibility of continued participation in schooling.

This finding aligns with contemporary international literature emphasizing that educational access is a multidimensional process encompassing physical reachability, affordability, continuity, and institutional capacity rather than merely enrollment availability [4,6]. In the Dayak Meratus context, the sharp decline in participation at the secondary level illustrates how nominal access may conceal deeper forms of structural educational exclusion.

Several parents explained that geographical conditions significantly affect school attendance, particularly during periods of heavy rainfall and flooding:

“The school exists, but reaching it is the real problem. During the rainy season, children cannot cross the road safely, so many stop going to school.”

(Parent, Muara Urie)

Educational disparities become increasingly visible at the secondary education level, where junior and senior high schools are located far beyond village boundaries. This spatial separation creates educational discontinuity and contributes directly to early school withdrawal.

A village leader explained:

“Most children finish elementary school, but very few continue. The distance to junior high school is too far, and families cannot afford daily transportation.” (Village Head, Takau)

These findings reinforce the argument that educational access should be conceptualized as an ongoing educational pathway rather than a one-time opportunity for enrollment. The disparity between claimed "100% access" at the elementary school level and the ongoing high dropout rates shows that traditional access indicators frequently fall short of capturing sustained participation and academic advancement.

3.2 Structural and geographic barriers as persistent drivers of educational inequality

The study further reveals that educational disparities are reinforced through the interaction of structural, geographic, and socio-economic barriers that collectively restrict sustained educational participation. Geographic isolation, inadequate transportation infrastructure, poor road conditions, and long travel distances significantly reduce students' ability to maintain regular school attendance, particularly at the secondary level.

These findings are consistent with studies conducted in remote regions across Asia and Latin America, where spatial marginalization contributes directly to educational discontinuity and unequal educational outcomes [2,7]. However, the Dayak Meratus case demonstrates that these barriers are intensified by ecological and seasonal conditions, including flooding and deteriorating road accessibility during the rainy season.

Teachers reported that student participation declines sharply after primary education:

“Students are enthusiastic in primary school, but many disappear after graduation because continuing school means leaving the village or traveling very far every day.”

(Elementary School Teacher, Hampang)

Socio-economic vulnerability further intensifies these structural constraints. Most households depend on subsistence farming and unstable informal livelihoods, making education-related expenses—including transportation, uniforms, and learning materials—financially burdensome. Under such conditions, household survival priorities frequently take precedence over long-term educational investment.

One parent stated:

“Education is important, but daily needs come first. If children help in the fields, the family survives.”

(Parent, Hulu Sampanahan)

This finding supports broader international evidence demonstrating that poverty and educational inequality operate in a mutually reinforcing cycle, particularly in remote and Indigenous communities [1]. Economic vulnerability not only limits school participation but also shapes household perceptions regarding the immediate value of education in relation to livelihood survival.

In addition, cultural perceptions regarding formal education influence educational decision-making processes. While many community members recognize the importance of schooling, educational aspirations are often constrained by limited employment opportunities available to graduates within remote rural settings. Consequently, some families perceive prolonged schooling as offering uncertain economic returns.

3.3 Educational disparities and their multidimensional welfare implications

The findings confirm that disparities in educational access extend far beyond schooling outcomes and directly affect broader dimensions of social welfare, including economic participation, health access, social mobility, and institutional engagement. Limited educational attainment restricts individuals primarily to low-income informal livelihoods, thereby reinforcing long-term economic insecurity and limiting opportunities for upward mobility.

This relationship reflects findings from international development literature, which identifies education as a key structural determinant of welfare resilience and labor market inclusion [4,6]. Within the Dayak Meratus community, low literacy levels further restrict engagement with formal institutions, including healthcare systems, administrative services, and social protection programs.

Local government officials emphasized the close relationship between educational inequality and welfare vulnerability:

“Without education, people remain dependent on unstable jobs. This affects their income, health access, and ability to escape poverty.”

(District Social Affairs Officer)

Low educational attainment also limits health literacy and administrative understanding, affecting community access to formal healthcare services. Many residents continue to rely primarily on traditional treatment practices not solely because of cultural preference, but also because of limited familiarity with modern healthcare procedures and institutional systems.

A customary leader explained:

“People are afraid of hospitals because they do not understand the procedures. Education would help, but many cannot read well.”

(Customary Leader, Limbur)

These findings demonstrate that educational inequality functions as a cross-sectoral form of exclusion affecting multiple aspects of daily life. Educational deprivation therefore cannot be treated merely as an educational issue, but rather as a broader structural condition influencing welfare vulnerability and social participation.

3.4 Intergenerational dimensions of educational exclusion

One of the most significant findings of this study is the intergenerational reproduction of educational disadvantage. Parents with limited educational experience often prioritize immediate economic survival over long-term educational investment, unintentionally perpetuating cycles of educational exclusion and welfare vulnerability across generations.

This pattern corresponds with contemporary research on intergenerational inequality, which argues that educational systems within marginalized regions frequently reproduce rather than reduce existing social disparities [5]. In the Dayak Meratus context, structural barriers, constrained economic capacity, and limited institutional support collectively restrict children's educational trajectories from an early age.

Importantly, the findings reveal that educational exclusion is frequently normalized within household decision-making processes. Under conditions of persistent economic uncertainty, educational discontinuity becomes socially accepted as part of everyday survival strategies rather than being perceived as institutional failure.

Nevertheless, the study also identifies important forms of community resilience. Strong social cohesion, communal values, and customary leadership structures continue to play significant roles in supporting informal educational engagement and collective welfare practices.

Teachers and community leaders emphasized the importance of culturally connected learning approaches:

“Children learn better when education is connected to their daily lives and culture.”

(Junior High School Teacher)

Community-based educational activities conducted informally through customary halls (balai adat) have generated positive community participation. However, these initiatives remain fragmented and receive limited institutional support, reducing their long-term sustainability and broader developmental impact.

3.5 Local institutions, cultural context, and opportunities for transformative intervention

Although institutional limitations remain substantial, the findings reveal important opportunities for culturally responsive and community-based educational interventions. Strong communal relationships, customary leadership systems, and locally embedded learning traditions provide valuable foundations for improving educational participation in remote Indigenous settings.

Recent international literature suggests that access within Indigenous communities are more effective when aligned with local cultural systems, community participation, and livelihood realities [2,4]. The informal learning practices observed within the Dayak Meratus community demonstrate the potential for integrating formal education with Indigenous knowledge systems and community-based learning approaches.

However, the study also demonstrates that limited institutional coordination and fragmented policy implementation continue to constrain educational improvement efforts. Existing educational and welfare interventions frequently operate independently rather than through integrated cross-sectoral strategies.

Participants consistently emphasized the importance of educational models that are flexible, culturally sensitive, and geographically accessible.

One village leader stated:

“If educational services become more accessible and are implemented in ways that respect local cultural practices and livelihoods, community participation in schooling is likely to improve.”

(Village Head, Katui)

These findings suggest that sustainable educational improvement in remote Indigenous communities requires approaches extending beyond infrastructure provision alone. Policies emphasizing community participation, localized educational delivery,

institutional collaboration, and integrated welfare planning are likely to produce more sustainable outcomes than fragmented sector-based interventions.

3.6 Theoretical and policy implications

Theoretically, this study contributes to the literature by reframing educational access as a structural determinant of welfare rather than merely a sector-specific educational outcome. By integrating educational inequality, welfare vulnerability, and socio-cultural dynamics within a single analytical framework, the study extends contemporary debates concerning educational exclusion in remote Indigenous contexts.

From the perspective of the capability approach, limited educational continuity restricts individuals' substantive freedoms, opportunities, and long-term welfare capabilities. Simultaneously, social exclusion theory helps explain how geographic isolation, institutional marginalization, and socio-economic vulnerability collectively reproduce educational disadvantage across generations.

From a policy perspective, the findings suggest that reducing educational inequality in remote Indigenous regions requires integrated interventions addressing educational continuity, household economic vulnerability, institutional accessibility, and cultural relevance simultaneously. Community-based educational models, flexible learning arrangements, transportation support, and integrated education–welfare planning emerge as critical strategies for improving long-term welfare resilience in marginalized communities.

4 CONCLUSION

This study demonstrates that educational access disparities within the Dayak Meratus Remote Indigenous Community are not merely a consequence of geographic isolation but the outcome of interconnected structural, socio-economic, and institutional constraints that shape educational continuity and social welfare trajectories. Educational access, when understood beyond formal school availability, emerges as a multidimensional process that determines long-term welfare resilience rather than short-term enrollment outcomes.

The findings confirm that limited access to secondary education represents a critical structural bottleneck. While primary education is nominally accessible, discontinuity beyond the elementary level systematically restricts human capital formation, reinforces informal livelihood dependence, and constrains access to health and social protection services. In this sense, educational inequality functions as a structural determinant of multidimensional welfare deprivation rather than a sector-specific deficiency.

This research contributes to existing scholarship by empirically demonstrating how educational exclusion operates at the micro-community level and by clarifying the conceptual ambiguity surrounding “educational access” in remote indigenous contexts. By integrating qualitative field evidence with contextual quantitative indicators, the study extends contemporary debates on education–welfare linkages and highlights the importance of educational continuity and cultural relevance in marginalized regions.

From a policy perspective, the findings suggest that efforts to reduce educational inequality in remote indigenous areas must move beyond infrastructure provision toward integrated, culturally responsive, and community-based approaches. Educational interventions that align with local socio-cultural systems and are coordinated with social welfare policies offer greater potential for sustainable impact than fragmented, sectoral programs.

Finally, this study acknowledges its contextual focus as both a strength and a limitation. While the findings are not intended for statistical generalization, they provide analytically transferable insights for similar remote and indigenous settings. Future research should explore comparative analyses across indigenous communities and assess the long-term effectiveness of integrated education and welfare interventions in reducing intergenerational inequality.

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