

## Junior high school principals' perspectives in underdeveloped area on independent curriculum implementation in Indonesia

**Kartika Yoga Eka Pratiwi Negara**

SMP Negeri 1 Sukadana, Jalan Tengku Abdul Hamid, Kecamatan Sukadana, Kabupaten Kayong Utara, Kalimantan Barat 78852, Indonesia

\*Correspondence: ✉ [kartikanegara82@gmail.com](mailto:kartikanegara82@gmail.com)

### **ABSTRACT**

**Purpose** – Educational disparities in underdeveloped areas of Indonesia present significant challenges for policy implementation, including the recent introduction of the Independent Curriculum. This study explores how junior high school principals in these regions perceive and implement the curriculum, focusing on their understanding, the obstacles they encounter, and the strategies they adopt.

**Method** – A qualitative research design was employed, with data collected through semi-structured interviews involving principals from several underdeveloped regions. Thematic analysis was conducted to identify recurring patterns and insights.

**Findings** – The findings reveal three major areas of concern: teacher competence, school infrastructure, and parental involvement. Principals reported difficulties in implementing student-centred learning due to limited teacher training, challenges in integrating technology, and increased administrative workloads. Infrastructural limitations, such as unreliable internet access and a shortage of textbooks, further hinder curriculum delivery. Additionally, many parents are unable to support their children's learning due to work demands and unfamiliarity with the curriculum content. In response, principals have initiated various strategies, including providing internet quota assistance, conducting internal teacher training, and collaborating with local organizations. This study highlights the crucial role of school leadership in adapting national educational policies to local contexts. It underscores the need for targeted support systems and infrastructure development and calls for future comparative research across different regional contexts to inform more equitable curriculum implementation.

**Keywords:** Principals, Perspective, Independent Curriculum, Underdeveloped Areas

Copyright ©2025 by Authors

Published by KURAS institute



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

## INTRODUCTION

Indonesia has an expansive territory and is an archipelagic nation. Due to the considerable scale of this region, achieving uniform development standards across its areas would be unattainable, leading to the classification of several regions as underdeveloped. Based on this context, this research was carried out in North Kayong Regency, one of the underdeveloped areas in Indonesia in terms of low accessibility to growth centres due to the lack of facilities and infrastructure and its geographical location, which is difficult to reach (Salim & Faoziyah, 2019). There are 43 junior high schools consisting of 39 state schools and 4 private schools with a student-to-teacher ratio of 12:1, which is the ideal ratio to meet the needs of teachers and students (Mimin, 2020). Schools in this area still face difficulties

regarding the availability of adequate infrastructure, the quality of teaching staff, and access to learning materials.

In regions lacking the resources advantageous to more developed areas, implementing a single curriculum, specifically the Independent Curriculum, may present unique, especially in teacher competency, school facilities, and the role of students' parents in successfully implementing it. As school leaders, principals are supposed to be capable of surmounting obstacles that emerge while implementing the Independent Curriculum within their respective institutions. The Independent Curriculum, introduced in 2021 as a replacement for the 2013 curriculum, underwent significant revisions in 2022. Designed to restore post-pandemic learning, it adopts a competency-based approach that emphasizes personalized and contextual learning. It also integrates the Pancasila Students Profile Strengthening Project as an independent co-curricular initiative, promoting the development of character traits while meeting global educational standards (Nugraha, 2022; Walukow et al., 2023; Wardani et al., 2023).

The curriculum represents a significant departure from previous frameworks, with changes in planning, implementation, and assessment methods. It emphasizes character development across all K–12 levels, guided by the Pancasila student profile. As a unified national framework, it is mandated for use in all public and private schools throughout Indonesia. The curriculum's introduction has reshaped the education ecosystem, with both opportunities and challenges emerging from its implementation. However, the transition to this curriculum has revealed significant challenges, particularly in maintaining educational standards. Understanding these challenges is crucial for developing timely solutions and preventive strategies (Marthana Yusa et al., 2023; Ndari et al., 2023; Reza et al., 2023).

Disparities between underdeveloped and developed areas are evident in the availability of educational resources, including teacher training, textbooks, and facilities, which hinder effective curriculum implementation (Riadi, 2019). Challenges such as poverty and a lack of appreciation for education complicate these efforts (Poedjiastutie et al., 2021). Although the government has increased school numbers to meet community needs (Neolaka et al., 2019), improvements in teacher training and infrastructure have lagged (Madhakomala et al., 2022). Similar challenges exist in other countries; for example, a study by Wang and Shen (2022) on underdeveloped areas in China found that limited government funding and a shortage of trained teachers significantly hindered educational advancement. Therefore, understanding the socio-economic and cultural context is essential when implementing the Independent Curriculum in these areas to develop practical solutions and promote sustainable educational development.

The curriculum is a foundational element of education that guides teaching and learning through structured plans and standards (Dvořák, 2023). It outlines learning objectives, activities, assessments, and teaching methods, ensuring students receive consistent experiences (Hinkel, 2022; Siregar, 2022). Practical tools like syllabi and textbooks help translate these decisions into actionable practices, while systematic organization of learning materials aligns efforts with intended outcomes (Mujiono & Aly, 2023; Rahayu,

2023). In Indonesia, curriculum development has evolved to address societal needs, shifting from the 1947 Curriculum emphasizing national interests to the Independent Curriculum focusing on personalized learning (Amalia & Asyari, 2023; Hakim, 2023). This development includes three main phases: the Competency-Based Curriculum, the Education Unit Level Curriculum (KTSP), and the 2013 Curriculum, each aimed at enhancing student achievement (Nurdin et al., 2023). Collaborative efforts between government agencies and publishers ensure that diverse perspectives are incorporated while maintaining national standards (Ananda & Fatonah, 2022; Setiawan & Suwandi, 2022).

The Independent Curriculum, introduced to address learning losses from the COVID-19 pandemic, promotes self-actualization and character-building, emphasizing ethical and moral development alongside literacy and numeracy skills (Azmi et al., 2023). It supports diverse learning styles and equips students with necessary soft and hard skills, fostering holistic growth aligned with the Pancasila Student Profile (Afnanda, 2023; Arifin et al., 2023). By granting teachers flexibility in lesson planning and emphasizing inclusivity, the curriculum aims to create engaging learning experiences that meet societal needs (Damayanti, 2023; Mustafiyanti et al., 2023; Siregar, 2022). The implementation process involves forming dedicated teams and providing internal training to teachers, ensuring alignment with Indonesia's long-term educational goals (Ramadina, 2024). The role of a junior high school principal is multifaceted, involving key responsibilities for effective school operation and development. Principals manage planning, problem-solving, and stakeholder collaboration to ensure smooth operations (Ahmad & Haryanto, 2023). They enhance school accreditation by improving educational services (Idami et al., 2022) and create positive learning environments through effective program implementation and classroom management (Lajame et al., 2022).

A principal's leadership style significantly shapes school climate and performance. Effective leadership fosters conducive learning environments, influences teacher professionalism, and enhances resilience (Wang & Dapat, 2023). It is crucial for improving teacher competence and overall educational effectiveness (Simanjuntak, 2021). Research shows that effective principals enhance teacher performance and educational quality (Alsheeb et al., 2022; Dare & Saleem, 2022), impacting teacher satisfaction, student well-being, and institutional performance (Majumdar, 2018). Principals must adapt their leadership to specific educational needs (Hidayat & Wulandari, 2020) and are most effective when fostering shared visions, enhancing teacher capacity, and maintaining strong external partnerships (McLeskey et al., 2016). Supporting teachers' emotional well-being by recognizing their efforts and communicating a clear vision is essential for a positive school atmosphere and long-term success (Lambersky, 2016). Curriculum change is complex and often faces challenges, particularly resistance to change due to disruptions of familiar routines (D'Eon, 2013). Effective management of curriculum change requires principals to acquire resources, support teacher development, and stay informed on educational trends (Govindasamy & Mestry, 2022). Their leadership is critical in managing change, enhancing student outcomes, and ensuring smooth transitions (Govindasamy & Mestry, 2022).

Collaboration among school leaders, management teams, and teachers increases the likelihood of successful curriculum reforms aligned with institutional goals (Munifah, 2017).

Principals guide curriculum changes by addressing resistance, fostering communication, and providing training (Van Wyk, 2020). Articulating curriculum objectives and achieving short-term successes helps build teachers' confidence in new initiatives (Van Wyk, 2020). Research indicates that principals who positively view new curricula are more open to reforms, fostering a supportive environment for change (Ittner et al., 2019). Consistency and mastery of new curriculum concepts are essential for successful implementation (Munifah, 2017). Principals who see reforms as improvements are more likely to advocate for them and align changes with the school's vision (Munifah, 2017). Through effective leadership, principals navigate the complexities of curriculum change, elevating educational standards and enriching the student learning experience.

School facilities are essential for effective curriculum implementation, providing the foundation for student engagement and independent learning (Qolbiyah & Ismail, 2022). Maintaining and upgrading infrastructure is crucial to meet evolving educational needs, as poor facilities hinder engagement and reduce learning outcomes. Quality facilities positively impact student achievement, with well-maintained infrastructure improving educational outcomes (Uline, 2022) and promoting teaching effectiveness, better performance, and overall success. Modern facilities also support continuous development, optimizing student achievement and enhancing teacher quality (Firman & Arnyana, 2023). Adequate amenities play a significant role in motivating students and increasing satisfaction. Students are more engaged when facilities meet their needs, whereas their absence creates learning barriers (Hardiana et al., 2023). Well-managed infrastructure fosters parental trust and strengthens the school community (Kholizah et al., 2023).

Teacher competency is pivotal for implementing the Independent Curriculum, emphasizing student autonomy and active participation. Teachers with strong competencies foster critical thinking, creativity, and independence, aligning lessons with the curriculum's goals (Hidayat & Wulandari, 2020; Marlina et al., 2023). Competent teachers employ innovative strategies to manage classroom challenges and keep students motivated (Muzharifah et al., 2023). Teachers are critical in mentoring students and promoting academic and personal growth (Ruaya et al., 2022). Given the complexities of the new curriculum, continuous professional development is essential (Melati, 2023). Schools benefit from fostering a learning culture and equipping teachers with skills in assessment, critical thinking, flexibility, and classroom management (Dewi et al., 2023; Pantiwati et al., 2023). Training programs are necessary to address competency gaps and ensure successful curriculum implementation (Sanjaya et al., 2022; Windayanti et al., 2023). Schools create environments that empower educators and students to excel by prioritizing teacher development.

Parental involvement connects home and school support systems, creating a cohesive learning environment. Marlina et al. (2023) highlight how engaged parents extend learning beyond the classroom, enhancing students' academic performance. Parents also play a

crucial role in reinforcing the values of the Independent Curriculum, such as belief in God, unity, and social justice (Fauzan et al., 2023). Consistent reinforcement at home complements school teachings, promoting character development (Azmi et al., 2023). Active parental engagement provides students with resources and guidance, helping them align educational goals with the curriculum's objectives (Melati, 2023). Collaboration between parents and schools strengthens curriculum implementation, fostering holistic growth. Challenges to parental involvement include unfamiliarity with the curriculum, resistance to change, and time constraints (Aminah & Syaâ, 2023; Warsihna et al., 2023). Schools must actively communicate the curriculum's benefits to engage parents effectively. Despite challenges, parental involvement is crucial for student success. Engaged parents enhance students' understanding of school concepts and create a more integrated learning environment (Chastanti et al., 2024). Strong collaboration with families ensures educational success through shared support.

Adapting curricula to underdeveloped areas' specific social, political, and regional contexts is essential for enhancing their relevance and impact. Obstacles to curriculum implementation include shortages of learning resources, malnutrition, unsuitable mediums of instruction, and unfavourable teacher-student ratios (Murundu et al., 2010; Sairiltiata et al., 2023; Sherman, 1995). Additionally, Falah and Hadna (2022) identify other challenges, such as limited technological infrastructure, economic constraints faced by parents, and a lack of qualified teachers. Addressing these multifaceted challenges requires comprehensive and context-specific strategies. Policymakers must consider the unique conditions of each region to develop tailored solutions that provide equitable access to education. Efforts to enhance infrastructure, support teachers, and engage local communities are essential for ensuring that students in underdeveloped areas have opportunities to thrive academically and break the cycle of underdevelopment.

This research aims to understand the perspectives of junior high school principals in underdeveloped areas on implementing the Independent Curriculum, teacher competency, school facilities, and parental involvement, and addresses several key questions. First, it investigates how junior high school principals in underdeveloped areas comprehend the implementation of the Independent Curriculum. Additionally, it explores the challenges these principals face while trying to implement this curriculum. Finally, the research seeks to uncover the strategies junior high school principals employ to overcome the identified challenges.

## METHOD

This study employed a qualitative approach to explore the experiences of junior high school principals in underdeveloped areas regarding implementing the Independent Curriculum. A qualitative design was chosen to capture nuanced, context-specific insights (Clarke & Braun, 2013), which was particularly relevant given the limited prior research in these regions (Creswell & Creswell, 2017). Using an interpretivist approach, the study aimed to understand the meaning principals attach to their experiences (Creswell & Poth, 2016). A

field study design with semi-structured interviews enabled in-depth exploration of participants' perspectives within their natural environments (Denzin & Lincoln, 2011).

Primary data was gathered through semi-structured interviews, a method well-suited for understanding participants' perceptions and experiences, especially for inquiries starting with "how" and "why" (Clark & Bryman, 2019). Ten interview topics, including Curriculum Understanding, Teacher Competency, and Parental Involvement, guided the conversations. A pilot interview ensured the relevance of questions and refined the interview process (Clark & Bryman, 2019). Due to geographical constraints, interviews were conducted via Zoom, which provided a secure platform and built-in transcription tools for accurate data recording. Each interview lasted 60–90 minutes, with participants' consent obtained beforehand to ensure ethical compliance and privacy.

This study employed purposive sampling, selecting participants who could provide rich, relevant data (Creswell & Creswell, 2017). Ten junior high school principals from North Kayong Regency, Indonesia, were approached, and eight agreed to participate. The selection criteria required participants to have at least one year of experience implementing the Independent Curriculum in non-school mover programs. The sample size reflects the study's qualitative nature, focusing on depth of insight rather than generalizability.

The data was analysed using thematic analysis following Clark and Bryman (2019) six-step framework: familiarization with the data, coding, theme identification, reviewing, naming themes, and reporting findings. Originally in Indonesian, interview transcripts were translated manually to maintain the authenticity of participants' responses (Rhisiart et al., 2022). Thematic codes were generated from transcripts and organized into themes aligned with the research questions. This iterative process ensured that the identified themes accurately reflected participants' experiences and contributed to the study's objectives.

## RESULT AND DISCUSSION

This study explored the perspectives of junior high school principals in underdeveloped areas of Indonesia regarding the implementation of the Independent Curriculum. The findings are organized around three central themes: principals' understanding of the curriculum, the challenges they face, and the strategies they employ to address those challenges.

The principals generally demonstrated a conceptual understanding of the Independent Curriculum, particularly its emphasis on differentiated instruction and student-centred learning. They perceived the curriculum as flexible, allowing learning to be tailored to students' individual needs, abilities, and learning paces. As one explained, *"In implementing the Independent Curriculum, teachers teach according to students' needs because every child's needs differ"* [Participant 1]. Another added, *"The Independent Curriculum allows teachers to present material according to the student's abilities"* [Participant 3]. Additionally, the curriculum was seen as encouraging teacher collaboration, autonomy in lesson planning, and character development, especially through the Project to Strengthen the Pancasila Student Profile, as stated by one participant, *"The Independent*



*Curriculum enhances teacher competence through collaboration and the support of a learning community*" [Participant 3]. However, while this surface-level understanding was evident, many principals admitted that their knowledge of the curriculum's core concepts remained limited. One principal confessed, *"We lack a full understanding of the Independent Curriculum, as neither the teachers nor I have received adequate training"* [Participant 2]. This lack of depth was attributed to the absence of structured training or socialization efforts from local education authorities. Instead, most training was accessed independently through the Merdeka Mengajar platform, webinars, or peer networks. Despite these limitations, some principals shared early examples of curriculum integration, such as differentiated classroom strategies and character education projects aimed at addressing school issues like bullying. For instance, *"Teachers first received training on the Pancasila student profile, then discussed and chose a specific project theme to address bullying"* [Participant 5].

In terms of implementation, the principals encountered several significant challenges. First, teacher competency posed a critical issue. Teachers often struggled to implement student-centred approaches, particularly in large classes, and many lacked digital literacy, making it difficult to utilize the required technology. As noted by one principal, *"Teachers must adapt to the student-centred curriculum by understanding students' learning experiences, but they often struggle with larger classes"* [Participant 1]. Digital literacy also became a barrier: *"Some of my teachers still don't understand how to use this learning application, so forcing them to use it in the classroom is difficult"* [Participant 3]. Furthermore, some teachers were reluctant to adopt the new curriculum, perceiving it as an added workload rather than an opportunity for innovation: *"Some teachers aren't interested in the Independent Curriculum, viewing its supporting activities as just additional work"* [Participant 7].

Second, inadequate school facilities presented persistent barriers. Principals cited poor internet connectivity: *"The internet quality at our school is poor, making even WhatsApp messaging difficult"* [Participant 6], frequent power outages: *"The electricity in this school area is unreliable. Power outages frequently disrupt computer and internet use"* [Participant 5], and shortages of digital tools and textbooks: *"We face difficulties using multimedia due to a shortage of computers and projectors"* [Participant 7]; *"The main obstacles are a lack of books and incomplete laboratory equipment"* [Participant 1].

Finally, parental involvement was identified as another major challenge. One principal observed, *"Parental involvement is very important because learning doesn't only happen at school but also at home"* [Participant 5]. Yet many parents worked away from home and had limited education, making collaboration difficult. *"We need a full understanding of students, but parents, who often know them better, are hard to reach due to their work on distant plantations"* [Participant 1]. Another added, *"Parents aren't unwilling to support them; they work on distant plantations and are often away, so they're unaware of what happens at school"* [Participant 3].

In response to these challenges, principals implemented a range of strategies. To enhance teacher competence, schools provided internet data subsidies: *"We've budgeted for teacher data plans twice a year"* [Participant 1], organized in-house training: *"We regularly hold in-house training by inviting experts to school"* [Participant 3], encouraged participation in teacher forums: *"I encourage my teachers to attend the Subject Teachers Association's monthly activities and share what they learned"* [Participant 4], and fostered learning communities: *"One of my strategies is to form a teacher-learning community with content about implementing the curriculum"* [Participant 7].

To address infrastructural limitations, schools printed learning materials: *"Teachers download and print teaching materials online to distribute to students"* [Participant 4], repurposed unused spaces: *"We used an unused space as a prayer room and art area for the Pancasila student profile project"* [Participant 5], and sought external partnerships: *"We proposed building a volleyball court to a nearby palm oil company, which kindly supported us"* [Participant 1].

To foster parental involvement, schools maintained communication through meetings and social media. One explained, *"Since implementing the Independent Curriculum, we have contacted parents once a year and provided more information on the curriculum"* [Participant 1]. Another emphasized digital solutions: *"Each homeroom teacher creates a WhatsApp group for parents"* [Participant 4]; *"Our school uses Facebook to update the community about activities"* [Participant 6]. Although connectivity issues remained, these strategies helped bridge communication gaps and build a stronger school-home connection.

## Discussion

This study examines the perspectives of junior high school principals' perspectives on implementing the Independent Curriculum in underdeveloped areas of Indonesia. The discussion centers on three key aspects: (1) principals' understanding of the curriculum, (2) challenges they encounter during implementation, and (3) strategies employed to overcome these challenges. The findings highlight diverse interpretations of the curriculum, significant barriers such as teacher competency and inadequate facilities, and efforts by principals to adapt and innovate within constrained contexts. These findings are particularly relevant given the pivotal role of school principals in navigating local challenges while ensuring the national curriculum's objectives are met.

### Principals' Understanding of the Independent Curriculum

#### *Diverse Conceptualizations of the Curriculum*

The understanding of the Independent Curriculum varies widely among the principals interviewed. Some view it as a holistic framework that integrates academic instruction with extracurricular activities and personal development, aligning with Rahayu (2023) conception of the curriculum as a tool for achieving specific educational outcomes. As one principal explained, *"In implementing the Independent Curriculum, teachers teach according to students' needs because every child has different needs"* [Participant 1]. However, many principals admit that their understanding remains limited due to insufficient professional



development opportunities. This was echoed by another principal who stated, *"We lack a full understanding of the Independent Curriculum because no adequate training has been provided"* [Participant 2]. This inconsistency underscores the importance of structured training to align educators' interpretations and ensure uniform curriculum implementation (Desimone, 2009; Penuel et al., 2007). Similarly, Participant 8 remarked, *"Teachers and I have to learn independently because the Department of Education has not provided proper guidance."* Given the complexity of curriculum concepts, professional development tailored to local needs becomes essential (Dvořák, 2023). Effective training equips educators with the skills to implement the curriculum cohesively and consistently, reducing variations that could compromise teaching quality and student outcomes.

### **Curriculum and Differentiated Learning**

Many principals associate the Independent Curriculum with differentiated learning, emphasizing its focus on meeting diverse student needs and supporting independent learning based on students' interests (Arifin et al., 2023; Damayanti, 2023). For example, Participant 3 explained, *"The Independent Curriculum allows teachers to present material according to the student's abilities."* The research underscores the benefits of differentiated instruction, including improved engagement and academic performance (Efendi et al., 2023). Another principal reinforced this by noting, *"The Independent Curriculum enhances teacher competence through collaboration and a learning community"* [Participant 3]. Principals foster teacher collaboration through learning communities and in-house training to develop these competencies (Ramadina, 2024). However, varied interpretations among principals indicate the need for further training to apply differentiated learning strategies across schools consistently. One principal observed, *"We implement the curriculum by prioritizing collaboration between teachers and principals in drafting school curriculum documents"* [Participant 4]. Successful implementation requires continuous training to build teachers' confidence and competence, aligning with Munifah (2017) assertion that mastering new curriculum frameworks takes time and sustained effort.

### **Curriculum Flexibility**

The flexibility offered by the Independent Curriculum allows teachers to adapt lessons to meet local needs and workforce demands (Mustafiyanti et al., 2023; Siregar, 2022). Participant 3 described this flexibility: *"Each teacher is free to develop materials according to their teaching style and students' abilities."* While this flexibility enhances student engagement, it can lead to inconsistent delivery across grades, as noted by Newmann et al. (2001). Principals leverage this adaptability to address contextual challenges, tailoring learning experiences to community needs. As Participant 6 put it, *"In the Independent Curriculum, teachers are more directed to focus on students in larger portions."* However, effective use of this flexibility requires well-prepared teachers with both the confidence and expertise to design innovative learning modules (Ertmer & Ottenbreit-Leftwich, 2010). Principals emphasize the need for ongoing support to maximize the curriculum's potential, as a lack of guidance could hinder its impact. District-level support is essential to facilitate coherent curriculum delivery across schools (Leithwood & Jantzi, 2008).

## Challenges in Implementing the Independent Curriculum

### Teacher Competency Issue

Teacher competency emerged as a key challenge in implementing the Independent Curriculum. Principals report that many teachers struggle to adopt student-centred learning practices central to the new framework (Marlina et al., 2023). As one principal observed, *"Teachers often struggle to adapt to student-centered approaches, especially in larger classes"* [Participant 1]. Another added, *"Some of my teachers don't understand how to use learning applications, making classroom use difficult"* [Participant 3]. Research emphasizes the importance of skilled teachers in managing diverse learning environments and achieving curriculum goals (Melati, 2023; Sanjaya et al., 2022). However, some teachers were reluctant, as noted by Participant 7: *"Some teachers see this curriculum as additional workload and are not interested in applying it."* Furthermore, limited access to targeted training, particularly in underdeveloped areas, hinders teachers' ability to adapt to new pedagogical approaches (Windayanti et al., 2023). Addressing these competency gaps requires targeted professional development to equip teachers with the necessary skills and foster effective classroom practices (Pantiwati et al., 2023; Sanjaya et al., 2022).

### Inadequate School Facilities

The lack of adequate facilities, including limited internet access and infrastructure, poses significant barriers to curriculum implementation (Qolbiyah & Ismail, 2022). This was reflected in Participant 6's statement: *"The internet signal at our school is poor, even sending WhatsApp messages is difficult."* While the Independent Curriculum provides flexibility, insufficient resources limit teachers' ability to leverage this autonomy fully. Participant 7 confirmed, *"We lack computers and projectors, leading to scheduling conflicts,"* while Participant 1 added, *"We face shortages of textbooks and incomplete laboratory kits."* Participant 5 further emphasized, *"The electricity supply here is unreliable, with frequent outages disrupting learning."* Principals acknowledge the need to repurpose existing facilities to maintain instructional quality creatively (Uline, 2022). Research highlights that effective integration of technology into learning requires not only technical knowledge but also teacher confidence (Ertmer & Ottenbreit-Leftwich, 2010). In contexts with resource limitations, this combination becomes particularly challenging, emphasizing the need for additional support and training.

## Strategies Employed to Overcome Challenges

### Enhanced Training and Professional Development

To address teacher competency issues, principals organize in-house training sessions with external experts (Ramadina, 2024) to address teacher competency issues. One principal noted, *"We regularly organize in-house training with external experts, and teachers can freely ask anything they still don't understand"* [Participant 3]. While these efforts provide valuable learning opportunities, a reliance solely on internal training risks reinforcing existing practices without fostering innovation (Aguinis & Kraiger, 2009). Participant 1 added, *"We allocated budgets for teachers' internet quotas so they can access resources from home."* A balanced approach that combines internal and external professional development is recommended to promote comprehensive growth and encourage peer exchange (Avalos,

2011; Darling-Hammond et al., 2017). Another principal encouraged peer involvement: *"We formed a teacher learning community to share content related to the Independent Curriculum"* [Participant 7]. Principals also encourage collaborative teaching environments, fostering a culture of shared responsibility. Collaboration among educators enhances teaching effectiveness and promotes continuous improvement (Hargreaves & Fullan, 2015).

### **Innovative Solutions for Facility Limitations**

To address facility-related challenges, principals adopt creative solutions such as utilizing outdoor spaces for learning and developing instructional materials using locally available resources (Johnson et al., 2012). Participant 4 described, *"Teachers download and print online resources to distribute to students,"* while Participant 5 explained, *"We used unused spaces as prayer and art areas for Pancasila projects."* These strategies align with the principles of culturally responsive teaching, which integrate local knowledge and practices into the curriculum (Gay, 2002). Partnerships with external organizations also provide additional support, enabling schools to implement innovative projects despite resource constraints. For example, Participant 1 said, *"We collaborated with palm oil companies to build facilities like a volleyball court,"* and Participant 4 noted, *"The Community Health Center provided medicines and trained students in first aid."* This adaptability is crucial for maintaining curriculum quality and addressing local needs effectively.

### **Improving Parental Engagement**

Principals recognize the importance of parental involvement in supporting student learning and have implemented strategies to enhance communication with parents. Regular progress updates, parent-teacher meetings, and workshops are organized to build stronger school-parent partnerships (Henderson & Mapp, 2002). As Participant 1 explained, *"Since implementing the Independent Curriculum, we have contacted parents once a year to provide curriculum information,"* while Participant 4 added, *"Each homeroom teacher creates a WhatsApp group for parents."* Participant 6 further noted, *"We use Facebook to update parents and the community, though not daily due to signal issues."* Efforts to educate parents about the curriculum's goals help address gaps in understanding and increase their engagement in the learning process (Melati, 2023). Strengthening these partnerships ensures more comprehensive student support and enhances the effectiveness of curriculum implementation.

### **Adaptability and Resourcefulness**

The principals' ability to adapt to challenges reflects their leadership competence in managing underdeveloped contexts. Their resourcefulness in finding innovative solutions underscores the importance of adaptability in educational leadership (Leithwood & Jantzi, 2008). As one principal shared, *"We used an unused space as a prayer room and art area for the Pancasila student profile project, focusing on spiritual and local arts despite the inadequate facilities"* [Participant 5]. Another principal emphasized external collaboration: *"Last year, we proposed building a volleyball court to a nearby palm oil company, which kindly supported us with both construction and equipment like nets and volleyballs"*

[Participant 1]. Resourcefulness also extended to instructional materials, as noted by one participant: "*Teachers download and print teaching materials online to distribute to students, as relying solely on textbooks would be too difficult*" [Participant 4]. These examples demonstrate a proactive approach by leveraging available resources and engaging in partnerships to overcome barriers, ensuring sustainable curriculum implementation despite constraints.

## CONCLUSION

This study investigated the perspectives of junior high school principals in underdeveloped areas of Indonesia regarding the implementation of the Independent Curriculum. It examined their understanding of the curriculum, the challenges they face, and the strategies they employ to overcome these obstacles. The findings underscore that successful implementation is closely tied to the principals' leadership, the availability of adequate school facilities, teachers' readiness, and parental involvement.

The study's findings have several practical implications. First, there is a clear need for targeted and continuous professional development that is contextually relevant to underdeveloped areas, especially in strengthening teacher capacity in student-centred learning and digital pedagogy. Second, infrastructure development—including reliable internet access, electricity, and learning resources—is essential to support curriculum delivery. Third, the role of parents must be recognized and supported through more accessible communication strategies and inclusive engagement initiatives that consider the socio-economic realities of rural communities.

From a policy perspective, the findings suggest that the adaptability and initiative of school principals are vital levers for policy implementation. Therefore, regional education authorities should not only provide technical support but also empower school leaders through ongoing mentoring, resource allocation, and decentralized decision-making.

For future research, longitudinal studies could examine the long-term impact of school-level strategies on student learning outcomes and teacher professional growth. Comparative research across various regional contexts—both developed and underdeveloped—would also be beneficial to uncover systemic factors that influence curriculum effectiveness. Additionally, exploring the perspectives of teachers, students, and parents would provide a more holistic understanding of the curriculum's impact and sustainability in diverse settings.

## REFERENCES

- Afnanda, M. (2023). Landasan pendidikan agama Islam dengan profil pelajar Pancasila di era Kurikulum Merdeka. *Tarbiyah Darussalam: Jurnal Ilmiah Kependidikan dan Keagamaan*, 7(2), 15–29.
- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60(1), 451–474. <https://doi.org/10.1146/annurev.psych.60.110707.163505>

- Ahmad, A., & Haryanto, B. (2023). The leadership role of junior high school principals in maintaining institutional sustainability in the Covid-19 era. *Indonesian Journal of Law and Economics Review*, 18(1), 21847. <https://doi.org/10.21070/ijler.v18i1.21847>
- Alsheeb, M. E., Nasir, B. B. M., & Awae, F. (2022). The impact of leadership role of school principals in the State of Qatar on the performance of teachers. *International Journal of Social Science and Education Research*, 5(2), 141–152.
- Amalia, F., & Asyari, L. (2023). Analisis perubahan kurikulum di Indonesia & pengembangan pendekatan understanding by design. *caXra: Jurnal Pendidikan Sekolah Dasar*, 3(1), 65–72.
- Aminah, I. A. N., & Sya', M. A. Y. (2023). Implementasi Kurikulum Merdeka dalam pembelajaran pendidikan agama Islam. *Jurnal Pendidikan Islam Al-Ilmi*, 6(2), 293–303. <https://doi.org/10.32529/al-ilmi.v6i2.2804>
- Ananda, R. R., & Fatonah, S. (2022). Tinjauan historis dan sosiologis perkembangan kurikulum pendidikan agama Islam di Indonesia. *Alsyst*, 2(6), 775–791. <https://doi.org/10.58578/alsys.v2i6.663>
- Arifin, N., Jihan, J., Nurtamam, M. E., Ramli, A. C., Wonmaly, W., & Tahirs, J. P. (2023). Strategi pengembangan Kurikulum Merdeka Belajar Kampus Merdeka berbasis individual differences pada perguruan tinggi. *Journal on Education*, 6(1), 3500–3511. <https://doi.org/10.31004/joe.v6i1.3420>
- Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and Teacher Education*, 27(1), 10–20. <https://doi.org/10.1016/j.tate.2010.08.007>
- Azmi, C., Murni, I., & Desyandri, D. (2023). Kurikulum Merdeka dan pengaruhnya pada perkembangan moral anak SD: Sebuah kajian literatur. *Journal on Education*, 6(1), 2540–2548. <https://doi.org/10.31004/joe.v6i1.3283>
- Baharuddin, U., & Daud, B. (2014). Principals: Distributed leadership practice of school performance in junior high school. *International Journal for Innovation Education and Research*, 2(10), 1–5. <https://doi.org/10.31686/ijer.vol2.iss10.250>
- Chastanti, I., Rofieq, A., Huda, A. M., Eriyanti, R. W., & Hasruddin, H. (2024). An analysis of the relevance of the Pancasila learner profile in the learning of biology. *Jurnal Pembelajaran dan Biologi Nukleus*, 10(1), 170–180. <https://doi.org/10.36987/jpbn.v10i1.5328>
- Clark, T., & Bryman, A. (2019). *How to do your social research project or dissertation*. Oxford University Press. <https://doi.org/10.1093/hepl/9780198811060.001.0001>
- Clarke, V., & Braun, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.



- D'Eon, M. (2013). The challenges of educational change: Cultural and psychological inertia. *Canadian Medical Education Journal*, 4(2), e1–e3. <https://doi.org/10.36834/cmej.36648>
- Damayanti, S. (2023). Penerapan Kurikulum Merdeka di SMAN 1 Sumberpucung pada masa peralihan dari Kurikulum 2013. *Proceedings Series of Educational Studies*, 1(1), 88–95. <https://doi.org/10.17977/um083.7907>
- Dare, P. S., & Saleem, A. (2022). Principal leadership role in response to the pandemic impact on school process. *Frontiers in Psychology*, 13, 943442. <https://doi.org/10.3389/fpsyg.2022.943442>
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute. <https://doi.org/10.54300/122.311>
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage handbook of qualitative research* (4th ed.). Sage.
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, 38(3), 181–199. <https://doi.org/10.3102/0013189X08331140>
- Dewi, T. S., Widian, W., Nisatullo, R. A., & Indrapangastuti, D. (2023). The importance of teacher professionalism in facing the independent curriculum. *Social, Humanities, and Educational Studies (SHES): Conference Series*, 10(1), 45–53. <https://doi.org/10.20961/shes.v6i1.71181>
- Dvořák, D. (2023). Curriculum development. In R. J. Tierney, F. Rizvi, & K. Ercikan (Eds.), *International encyclopedia of education* (4th ed., pp. 149–154). Elsevier. <https://doi.org/10.1016/B978-0-12-818630-5.03024-4>
- Efendi, P. M., Muhtar, T., & Herlambang, Y. T. (2023). Relevansi Kurikulum Merdeka dengan konsepsi Ki Hadjar Dewantara: Studi kritis dalam perspektif filosofis-pedagogis. *Jurnal Elementaria Edukasia*, 6(2), 548–561. <https://doi.org/10.31949/jee.v6i2.5487>
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255–284. <https://doi.org/10.1080/15391523.2010.10782551>
- Falah, A. I., & Hadna, A. H. (2022). Problematika pendidikan masa pandemi di Indonesia pada daerah 3-T (terluar, tertinggal, dan terdepan). *Jurnal Pendidikan dan Kebudayaan*, 7(2), 164–185. <https://doi.org/10.24832/jpnk.v7i2.2997>
- Fauzan, F., Ansori, R. A. M., Dannur, M., Pratama, A., & Hairit, A. (2023). The implementation of the Merdeka curriculum (independent curriculum) in strengthening students' character in Indonesia. *Aqlamuna: Journal of Educational Studies*, 1(1), 136–155. <https://doi.org/10.58223/aqlamuna.v1i1.237>
- Firman, F., & Arnyana, I. B. P. (2023). Analysis of basic education policies related to facilities and infrastructure. *International Journal of Contemporary Studies in Education*, 2(1), 73–77. <https://doi.org/10.56855/ijcse.v2i1.306>



- Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53(2), 106–116. <https://doi.org/10.1177/0022487102053002003>
- Govindasamy, V., & Mestry, R. (2022). The principal's role in managing curriculum change: Implications for the provision of quality education. *South African Journal of Education*, 42(4), 1–10. <https://doi.org/10.15700/saje.v42n4a2339>
- Hakim, A. R. (2023). Konsep landasan dasar pendidikan karakter di Indonesia. *Journal on Education*, 6(1), 2361–2373. <https://doi.org/10.31004/joe.v6i1.3258>
- Hardiana, N. D., Aisyah, N., Harahap, N. H., & Dara, E. S. (2023). The effect of school facilities on students' learning motivation on English. *Sinar Dunia: Jurnal Riset Sosial Humaniora dan Ilmu Pendidikan*, 2(1), 1–9. <https://doi.org/10.33373/as.v13i2.4855>
- Hargreaves, A., & Fullan, M. (2015). *Professional capital: Transforming teaching in every school*. Teachers College Press.
- Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Southwest Educational Development Laboratory.
- Hidayat, N., & Wulandari, F. (2020). The impact of leadership behavior on school performance. *Jurnal Cakrawala Pendidikan*, 39(3), 493–506. <https://doi.org/10.21831/cp.v39i3.32077>
- Hinkel, E. (2022). *Handbook of practical second language teaching and learning*. Routledge. <https://doi.org/10.4324/9781003183910>
- Idami, M. S., Harun, C. Z., & Khairuddin, K. (2022). Principal's strategy for increasing accreditation in junior high schools. *Al-Ishlah: Jurnal Pendidikan*, 14(4), 6687–6694. <https://doi.org/10.35445/alishlah.v14i4.3604>
- Ittner, D., Hagenauer, G., & Hascher, T. (2019). Swiss principals' emotions, basic needs satisfaction and readiness for change during curriculum reform. *Journal of Educational Change*, 20(2), 165–192. <https://doi.org/10.1007/s10833-018-9338-3>
- Johnson, S. M., Kraft, M. A., & Papay, J. P. (2012). How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement. *Teachers College Record*, 114(10), 1–39. <https://doi.org/10.1177/016146811211401004>
- Kholizah, N. A., Hanifah, F., Munawwarah, T., Sani, D. A., Savitri, I., & Akmalia, R. (2023). Analisis implementasi perencanaan sarana dan prasarana pendidikan di MIS Nurul Fadhillah. *Journal on Education*, 6(1), 6587–6591.
- Lajame, J., Tuerah, R. M., & Pinontoan, M. (2022). Implementation of the principal's leadership at junior high school 9 South Halmahera. *International Journal of Academic Research*, 8(6), 463–469.
- Lambersky, J. (2016). Understanding the human side of school leadership: Principals' impact on teachers' morale, self-efficacy, stress, and commitment. *Leadership and Policy in Schools*, 15(4), 379–405. <https://doi.org/10.1080/15700763.2016.1181188>

- Leithwood, K., & Jantzi, D. (2008). Linking leadership to student learning: The contributions of leader efficacy. *Educational Administration Quarterly*, 44(4), 496–528. <https://doi.org/10.1177/0013161X08321501>
- Madhakomala, R., Hakim, M. A., & Syifauzzuhrah, N. (2022). Problems of education in Indonesia and alternative solutions. *International Journal of Business, Law, and Education*, 3(2), 135–144. <https://doi.org/10.56442/ijble.v3i3.64>
- Magayang, D., Gaffar, M., Meirawan, D., Komariah, A., Suhardan, D., & Kurniady, D. (2020). Underdeveloped region education: Teacher existence, access and educational policy. *Utopía y Praxis Latinoamericana*, 25(2), 179–189.
- Majumdar, B. (2018). School principals as leaders: Major research trends and future directions. In E. Frydenberg, A. J. Martin, & R. J. Collie (Eds.), *Social and emotional learning in Australia and the Asia-Pacific* (pp. 325–345). Springer. [https://doi.org/10.1007/978-981-10-3394-0\\_17](https://doi.org/10.1007/978-981-10-3394-0_17)
- Marlina, Y., Muliawati, T., & Erihadiana, M. (2023). Implementation of Kurikulum Merdeka in integrated Islamic school. *Tatar Pasundan: Jurnal Diklat Keagamaan*, 17(1), 69–85. <https://doi.org/10.38075/tp.v17i1.312>
- Marsaulina, R., Kia, D., & Rezeki, S. (2023). Quality schools from an educational policy point of view independent learning in Indonesia. *Jurnal Kadesi*, 4(2), 21–45. <https://doi.org/10.54765/ejurnalkadesi.v4i2.33>
- Marthana Yusa, I. M., Yusuf, M., Rahman, A., Aniati, A., & Supriyanto, D. (2023). The challenges and opportunities of Kurikulum Merdeka implementation in Indonesian schools. *Indonesian Journal of Education (INJOE)*, 3(2), 364–382. <https://doi.org/10.54443/injoe.v3i2.72>
- McLeskey, J., Billingsley, B., & Waldron, N. L. (2016). Principal leadership for effective inclusive schools. In J. McLeskey, B. Billingsley, & N. L. Waldron (Eds.), *General and special education inclusion in an age of change: Roles of professionals involved* (pp. 55–74). Emerald Group Publishing. <https://doi.org/10.1108/S1479-363620160000008003>
- Melati, P. S. (2023). Implementasi Kurikulum Merdeka Belajar pada sekolah dasar mempengaruhi pada hasil evaluasi belajar peserta didik. *Proceedings Series of Educational Studies*, 1(1), 105–113. <https://doi.org/10.17977/um083.7893>
- Mimin, E. (2020). Strategi meningkatkan akses dan mutu pendidikan di Kabupaten Pegunungan Bintang Provinsi Papua. *Jurnal Pendidikan Glasser*, 4(2), 116–128.
- Mujiono, M., & Aly, H. N. (2023). Implementasi kurikulum dalam konsepsi kebijakan pendidikan Islam. *Akademika: Jurnal Keagamaan dan Pendidikan*, 19(1), 1–9. <https://doi.org/10.56633/jkp.v19i1.512>
- Munifah, M. (2017). Demystifying the perspectives of school principals as leaders of curriculum change: The case of Indonesia. In *Proceedings of the 2nd International Conference on Educational Management and Administration (CoEMA 2017)* (pp. 101–106). Atlantis Press. <https://doi.org/10.2991/coema-17.2017.18>

- Murundu, Z. O., Indoshi, F. C., & Okello, M. (2010). School-based factors influencing implementation of early childhood development and education curriculum. *Educational Research and Reviews*, 5(11), 655–661.
- Mustafiyanti, M., Putri, M. P., Muyassaroh, M., Noviani, D., & Dylan, M. (2023). A form of independent curriculum, an overview of independent learning at State Elementary School 05 Gelumbang Muaraenim. *Pengabdian: Jurnal Abdimas*, 1(2), 82–96. <https://doi.org/10.55849/abdimas.v1i2.185>
- Muzharifah, A., Ma'alina, I., Istianah, P., & Lutfiah, Y. N. (2023). Persepsi guru terhadap implementasi Kurikulum Merdeka di Madrasah Ibtidaiyah Walisongo Kranji 01 Kedungwuni. *Concept: Journal of Social Humanities and Education*, 2(2), 161–184. <https://doi.org/10.55606/concept.v2i2.306>
- Ndari, W., Suyatno, Sukirman, & Mahmudah, F. (2023). Implementation of the Merdeka curriculum and its challenges. *European Journal of Education and Pedagogy*, 4(3), 111–116. <https://doi.org/10.24018/ejedu.2023.4.3.648>
- Neolaka, M., Klau, R. S., & Nahak, M. E. (2019). Lack of basic education accessibility in the periphery area of Indonesia (A research in Takirin Village, Tasifeto Timur Sub-District, Belu Regency, NTT Province–Indonesia). In *Proceedings of the International Association for Public Administration (IAPA) Conference* (pp. 122–131). <https://doi.org/10.30589/proceedings.2018.187>
- Newmann, F. M., Smith, B., Allensworth, E., & Bryk, A. S. (2001). Instructional program coherence: What it is and why it should guide school improvement policy. *Educational Evaluation and Policy Analysis*, 23(4), 297–321. <https://doi.org/10.3102/01623737023004297>
- Nita, S., Ampa, A. T., & Akib, E. (2022). Implementation of 2013 curriculum in teaching English at rural junior high schools in Luwu Utara Regency. *Journal of Development Research*, 6(2), 230–235. <https://doi.org/10.28926/jdr.v6i2.237>
- Nugraha, T. S. (2022). Kurikulum Merdeka untuk pemulihan krisis pembelajaran. *Inovasi Kurikulum*, 19(2), 251–262. <https://doi.org/10.17509/jik.v19i2.45301>
- Nurdin, A., Samad, S. A. A., Samad, M., & Fakrurrazi, F. (2023). Government policy regarding education in Indonesia: Analysis of competence-based curriculum, educational unit level curriculum, and curriculum 2013. *Journal of Governance and Social Policy*, 4(1), 139–155. <https://doi.org/10.24815/gaspol.v4i1.31812>
- Otok, B. W., Hidayat, R., Mahsyari, Z., Sa'diyah, S. H., & Fadhila, D. A. (2018). Classification of underdeveloped regions in Indonesia using decision tree method. In *Proceedings of the 2nd International Conference Postgraduate School* (pp. 39–46). Atlantis Press. <https://doi.org/10.5220/0007553308790883>
- Pantiwati, Y., Chamisijatin, L., Zaenab, S., & Aldya, R. F. (2023). Characteristics of learning assessment towards implementation of Merdeka learning curriculum. *Jurnal Penelitian dan Pengkajian Ilmu Pendidikan: E-Saintika*, 7(1), 115–128. <https://doi.org/10.36312/esaintika.v7i1.1125>

- Penuel, W. R., Fishman, B. J., Yamaguchi, R., & Gallagher, L. P. (2007). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal*, 44(4), 921–958. <https://doi.org/10.3102/0002831207308221>
- Poedjiastutie, D., Mayaputri, V., & Arifani, Y. (2021). Socio-cultural challenges of English teaching in remote areas of Indonesia. *TEFLIN Journal*, 32(1), 97–116. <https://doi.org/10.15639/teflinjournal.v32i1/97-116>
- Qolbiyah, A., & Ismail, M. A. (2022). Implementation of the independent learning curriculum at the driving school. *Jurnal Penelitian Ilmu Pendidikan Indonesia*, 1(1), 1–6. <https://doi.org/10.31004/jpion.v1i1.1>
- Rahayu, Y. (2023). Problematika kurikulum di sekolah dasar. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 8(1), 3176–3187. <https://doi.org/10.23969/jp.v8i1.8594>
- Ramadina, E. (2024). Kurikulum Merdeka planning in schools: Case study at SMA N 1 Kalidawir. *Inovasi Kurikulum*, 21(1), 529–544. <https://doi.org/10.17509/jik.v21i1.66012>
- Reza, F., Rohmah, Z., & Abdullah, N. N. (2023). Challenges in implementing Kurikulum Merdeka for EFL teachers. *JEELS (Journal of English Education and Linguistics Studies)*, 10(2), 439–469. <https://doi.org/10.30762/jeels.v10i2.1899>
- Rhisiart, D., Rhys, M., Bundy, C., & James, D. (2022). The role of native language use in motivational interviewing. *International Journal of Pharmacy Practice*, 30(Suppl. 1), i29–i30. <https://doi.org/10.1093/ijpp/riac005.91>
- Riadi, A. (2019). An empirical study on Indonesian English-curriculum changes: Opportunities and constraints in an underdeveloped region. *Indonesian TESOL Journal*, 1(2), 89–103. <https://doi.org/10.24256/itj.v1i2.835>
- Ruaya, P. P., Kang, H. X., Reader, S., & Hidayat, T. (2022). Role of teacher competence to implement the independent curriculum. *International Journal of Science Education and Cultural Studies*, 1(2), 94–108. <https://doi.org/10.58291/ijsecs.v1i2.48>
- Sairiltiata, S., Umarella, M., Johansz, D., & Septory, J. (2023). Sosialisasi Kurikulum Merdeka Belajar pada guru-guru di SD Inpres Tomra di wilayah daerah 3T (terdepan, terpencil dan tertinggal). *Jurnal Pengabdian Masyarakat Sains dan Teknologi*, 2(4), 43–51. <https://doi.org/10.58169/jpmsaintek.v2i4.228>
- Salim, W., & Faoziyah, U. (2019). Perkembangan daerah tertinggal dan terentaskan di Indonesia. *Jurnal Sosial Humaniora*, 10(2), 118–129.
- Sanjaya, W., Erita, Y., Putri, R. S., & Indriyani, N. (2022). Teachers' readiness and ability in designing teaching modules in the independent curriculum. *Journal of Digital Learning and Distance Education*, 1(7), 288–296. <https://doi.org/10.56778/jdlde.v1i7.46>
- Saputra, H., & Italina, C. (2020). The role of principal's leadership in improving the quality of mathematics education at Junior High School Kembang Tanjong. *Journal of Management Science (JMAS)*, 3(4), 98–102.
- Setiawan, B., & Suwandi, E. (2022). The development of Indonesia national curriculum and its changes: The integrated science curriculum development in Indonesia. *Journal of*

- Innovation in Educational and Cultural Research*, 3(4), 528–535.  
<https://doi.org/10.46843/jiecr.v3i4.211>
- Sherman, K. (1995). Community-led initiatives in curriculum development. *Prospects*, 25(4), 633–645. <https://doi.org/10.1007/BF02334573>
- Simanjuntak, J. M. (2021). The impact of principal leadership on the effectiveness of learning in Christian senior high school in Bandung, Indonesia. *Kelola: Jurnal Manajemen Pendidikan*, 8(1), 11–21. <https://doi.org/10.24246/j.jk.2021.v8.i1.p11-21>
- Siregar, D. R. S. (2022). Desain pengembangan kurikulum. *Jurnal Mahasiswa Pendidikan*, 2(2), 146–157. <https://doi.org/10.37286/jmp.v2i2.183>
- Uline, C. L. (2022). Educational facility management. In L. C. Papa & C. L. Uline (Eds.), *Educational facility management* (pp. 569–579). Routledge.  
<https://doi.org/10.4324/9781138609877-REE69-1>
- Van Wyk, A. (2020). Leading curriculum changes in schools: The role of school principals as perceived by teachers. *Perspectives in Education*, 38(2), 155–167.  
<https://doi.org/10.18820/2519593X/pie.v38.i2.12>
- Walukow, M. R., Naharia, O., Wullur, M. N., Sumual, S. D. M., & Monoarfa, H. (2023). Implementation of Merdeka Belajar policy: Constraints in the Pancasila students profile strengthening project. *International Journal of Multidisciplinary Approach Research and Science*, 1(2), 104–116. <https://doi.org/10.59653/ijmars.v1i02.62>
- Wang, Y., & Dapat, R. O. (2023). School principals' leadership styles and organizational climate toward innovative leadership program. *Journal of Education and Educational Research*, 2(1), 39–41. <https://doi.org/10.54097/jeer.v2i1.5178>
- Wang, Y., & Shen, J. (2022). The socioeconomic status impact on rural area students' education: An interview study. *Journal of Education and Practice*, 13(24), 1–8.  
<https://doi.org/10.2991/assehr.k.220504.387>
- Wardani, H. K., Sujarwo, S., Rakhmawati, Y., & Cahyandaru, P. (2023). Analysis of the impact of the Merdeka curriculum policy on stakeholders at primary school. *Jurnal Ilmiah Peuradeun*, 11(2), 345–362. <https://doi.org/10.26811/peuradeun.v11i2.801>
- Warsihna, J., Ramdani, Z., Amri, A., Kembara, M. D., Steviano, I., Anas, Z., & Anggraena, Y. (2023). Tantangan dan strategi implementasi Kurikulum Merdeka pada jenjang SD: Sebuah temuan multi-perspektif. *Kwangsan: Jurnal Teknologi Pendidikan*, 11(1), 296–311. <https://doi.org/10.31800/jtp.kw.v11n1.p296--311>
- Windayanti, W., Afranda, M., Agustina, R., Kase, E. B., Safar, M., & Mokodenseho, S. (2023). Problematika guru dalam menerapkan Kurikulum Merdeka. *Journal on Education*, 6(1), 2056–2063. <https://doi.org/10.31004/joe.v6i1.3197>