

The Disconnect between Financial Compliance and Pedagogical Utility in School Management: A Phenomenological Study on “Sleeping Assets” and Bureaucratic Rituals

Novie Noldy Johanes Rompis^{1*}, Henny Nikolin Tambingon¹, Rolles N. Palilingan¹, Ruth Umbase¹

¹Doctoral Program in Educational Management, Graduate School, Universitas Negeri Manado,
Indonesia

*Corresponding author: noldyrompis@gmail.com

ARTICLE INFO

Article history:

Received: January 30, 2026; Received in revised form: February 20, 2026; Accepted: March 04, 2026;
Available online: March 06, 2026;

ABSTRACT

In the landscape of decentralized school-based management, principals hold a complex dual autonomy: as accountable fiscal managers and as visionary instructional leaders. However, the pressure of bureaucratic isomorphism often creates an extreme disparity in focus. This phenomenological study investigates how principals in Public Junior High Schools (SMP) in Tomohon City, Indonesia, navigate the existential tension between the demands for state financial reporting compliance and the effectiveness of asset utilization for learning. Through in-depth interviews, document analysis, and physical observation of schools, this study uncovers a chronic phenomenon of “Loose Coupling.” The findings indicate that: (1) An Asymmetry of Accountability occurs, where leadership energy is exhausted pursuing an administrative “clean audit” status, while the evaluation of pedagogical impact is neglected; (2) The emergence of the “Sleeping Assets” phenomenon, where teaching aids and learning technologies undergo an ontological death—purchased as symbols of modernity but unused in classroom practice; and (3) External evaluation tends to be blunt and normative, failing to diagnose the gap between budget expenditure and learning quality. This study concludes that without reforming accountability mechanisms to balance fiscal and pedagogical indicators, educational decentralization will only produce symbolic compliance without substantial quality improvement.

Keywords: accountability asymmetry, financial compliance, loose coupling, phenomenology, school management, sleeping assets.

INTRODUCTION

The global shift towards educational decentralization, manifested in the School-Based Management (SBM) paradigm, is predicated on a fundamental assumption: that local autonomy leads to better resource allocation and, consequently, improved student learning outcomes (Cheng, 1996; Caldwell, 2005). Theoretically, placing decision-making power in the hands of school principals—who are closest to the instructional core—should eliminate the inefficiencies inherent in centralized bureaucracies. In Indonesia, this decentralization has been rigorously implemented for over two decades, most notably through the direct distribution of School Operational Assistance (Bantuan Operasional Satuan Pendidikan or BOSP) funds to schools. This policy aims to empower schools to procure learning resources tailored to their specific contextual needs (World Bank, 2020).

However, a persistent paradox plagues the Indonesian education system. Despite a significant increase in education spending, mandated at 20% of the state budget, student performance in international assessments such as PISA (Program for International Student Assessment) has remained stagnant or even declined in certain domains (OECD, 2023). This phenomenon suggests a "broken link" in the chain of policy implementation. While funds are successfully disbursed and schools are physically equipped with modern tools, the expected pedagogical transformation remains elusive.

The core of the problem lies not merely in the availability of funds, but in the micropolitics and phenomenological experience of managing those funds. Principals in public schools operate under a "Panopticon" of strict financial surveillance. The state demands rigorous proof of expenditure, receipts, timestamps, and geolocation tags, creating a culture of hyper-accountability regarding the "where" and "how much" of spending (Sari & Tanjung, 2023). Yet, the "what for" and "how well", the pedagogical utility of these expenditures—often escape scrutiny. This creates an environment where purchasing a microscope is an administrative success, even if the microscope remains boxed in a cupboard for years.

The state of the art in previous research has extensively covered the technical aspects of financial management, focusing on transparency, corruption risks, and administrative competence (Rosser, 2018; Nuryana & Hidayat, 2022). Other studies have examined instructional leadership in isolation from fiscal constraints (Hallinger et al., 2020). However, a significant research gap remains: there is a scarcity of research that bridges these two domains phenomenologically. Most studies capture school management through a positivistic lens that measures efficiency but fail to capture the inner struggle of principals trapped between two conflicting accountability regimes.

The novelty of this research lies in its use of a hermeneutic phenomenological perspective to uncover "Sleeping Assets" not as a logistical problem, but as an ontological phenomenon. This study offers the concept of the "Ontological Death of Tools" to explain how bureaucratic rituals have stripped the "soul" from educational means, transforming them from teaching aids into mere audit artifacts.

LITERATUR REVIEW

Recent Developments in Accountability Research

Recent studies reinforce the relevance of this theory in the context of digitalization and modern accountability. Research by Skedsmo and Huber (2021) found that excessive top-down accountability pressures often force principals to decouple administrative compliance from pedagogical practice as a survival strategy. In the Indonesian context, Lamatokan et al. (2024) confirm that school reporting is often trapped in financial accountability alone, neglecting program implementation reports, thus creating an illusion of performance. Furthermore, Alvunger et al. (2021) introduced the concept of Symbolic Adoption, where schools adopt innovations or new tools merely as symbols of modernity for external legitimacy, without any deep use in teaching practice. Additionally, Tambingon (2022) notes that the Indonesian education management landscape is heavily influenced by bureaucratic and political interventions that prioritize quantitative metrics over qualitative substance. These findings indicate that bureaucratic formalism remains a primary barrier to global educational transformation.

Loose Coupling Theory and Educational Organizations

Weick's (1976) theory of Loose Coupling remains the most powerful lens for understanding the disconnect in educational organizations. Weick argued that in schools, formal structures (administration, rules, budget plans) are often disconnected from core technical activities (teaching and learning). This separation allows schools to buffer themselves from external uncertainties. In the context of financial management, loose coupling explains why a school can be deemed "excellent" by auditors because its books are balanced, while simultaneously being "failing" in the classroom because its resources are unutilized (Orton & Weick, 1990). The administration creates a façade of order that satisfies external stakeholders, while the chaos or stagnation of the classroom remains hidden.

Institutional Isomorphism: The Pressure to Conform

Why do schools continue to purchase equipment they do not use? DiMaggio and Powell's (1983) theory of Institutional Isomorphism offers an explanation. Schools are subject to coercive pressure (regulations) and mimetic pressure (copying successful peers). To appear legitimate and modern, schools engage in symbolic adoption (Alvunger et al., 2021). They purchase interactive flat panels or science kits because "that is what a good school looks like," not necessarily because they have a pedagogical strategy for them. The possession of the tool becomes the end goal (telos), serving as a signal of legitimacy to the government and community, regardless of its actual utility.

The Ontology of Equipment: Ready-to-Hand vs. Present-at-Hand

To understand the phenomenon of unused tools, this study draws upon Martin Heidegger's philosophy of technology. In *Being and Time* (1962), Heidegger distinguishes between two modes of being for an object: *Zuhandenheit* (Ready-to-hand) and *Vorhandenheit* (Present-at-hand). A tool, such as a hammer or a projector, truly "is" a tool only when it is being used to perform a task; it withdraws into the action. When a tool is broken, or in the case of this study, merely stored in a glass cabinet, it shifts to being Present-at-hand—it is just an object taking up space, devoid of its instrumental essence. This concept of ontological death is crucial for analyzing how administrative compliance turns potential learning amplifiers into inert matter (Ihde, 1990; Verbeek, 2005).

Bureaucratic vs. Professional Accountability

The tension faced by principals is also a clash of accountability regimes. Darling-Hammond (1989) and more recently Skedsmo and Huber (2021) distinguish between bureaucratic accountability (compliance with rules) and professional accountability (adherence to professional standards of practice). In developing contexts, bureaucratic accountability often cannibalizes professional judgment. The fear of sanctions for administrative errors (e.g., a missing stamp) far outweighs the fear of sanctions for poor learning outcomes, leading to risk-averse behavior that prioritizes "safe" spending over "effective" spending (Aydos et al., 2024).

METHOD

Research Design

This research uses a "descriptive qualitative" case study approach. This study employs a hermeneutic phenomenological design, drawing on the traditions of Heidegger and Gadamer (2004). Unlike descriptive phenomenology which seeks to merely describe a phenomenon, hermeneutic phenomenology aims to interpret the meaning of lived experiences within their specific historical and cultural contexts. This approach is particularly suitable for uncovering the "hidden narratives" of school management that are often masked by official bureaucratic language.

Context and Participants

The study is situated in Tomohon City, North Sulawesi, Indonesia. Culturally, this region is known for its high value on education and community cooperation (Mapalus). However, as public servants, the principals operate within the rigid structure of the Indonesian national civil service.

Participants were selected using purposive sampling. Three principals (P1, P2, P3) from Public Junior High Schools (SMP Negeri) were recruited based on the following criteria: (1) tenure of at least two years, ensuring they have navigated multiple budget cycles; (2) direct management of BOSP funds; and (3) a willingness to engage in deep, reflective dialogue. P1 (Female, 50s), P2 (Female, 50s), P3 (Female, 50s).

Data Collection

Data collection involved three triangulation methods:

- 1) In-depth Phenomenological Interviews: Conducted over six months, focusing on the principals' lived experiences of budgeting, purchasing, and reporting. Questions were open-ended, e.g., "Describe your feelings when the BPK audit team arrives," or "Tell me about the last time you bought a teaching aid."
- 2) Observation of Material Culture: The researcher conducted "walk-throughs" in the schools to observe the physical state of learning assets—checking laboratories, libraries, and storage rooms for signs of use (wear and tear) or non-use (dust, original packaging).
- 3) Document Analysis: Reviewing RKT (Annual Work Plans) and BOSP financial reports to trace the consistency between planned programs and realized expenditures.

Data Analysis

Analysis followed the Hermeneutic Circle, moving dialectically between the parts (individual transcripts, specific observations) and the whole (the education system, cultural context). The process involved: (1) Naive reading to grasp the whole; (2) Structural analysis to identify themes; and (3) Comprehensive understanding to fuse the horizons of the researcher and participants. Trustworthiness was established through member checking and prolonged engagement in the field.

Trustworthiness (Validity and Reliability)

The quality of the research was maintained using Guba and Lincoln's (1989) criteria:

- 1) **Credibility:** Achieved through prolonged engagement in the field (6 months) and member checking (confirming interpretations back to participants).
- 2) **Transferability:** Providing thick description so readers can assess the applicability of findings to other contexts.
- 3) **Dependability:** An audit trail documenting the entire methodological decision-making process.
- 4) **Confirmability:** Ensuring that findings stem from the data, not researcher bias, through reflectivity (bracketing) of the researcher's initial assumptions.

RESULTS AND DISCUSSION

The hermeneutic analysis revealed three overarching themes that constitute the essence of the principals' experience: (1) The Dominance of the Bureaucratic Panopticon, (2) The Ontological Death of Learning Tools, and (3) The Illusion of External Evaluation.

Theme 1: The Dominance of the Bureaucratic Panopticon

The principals' lifeworld is dominated by the gaze of external auditors—the Education Office, the Inspectorate, and the Supreme Audit Agency (BPK). This surveillance creates a psychological state of "hyper-compliance." P1 describes the reporting process not as a management task, but as a survival mechanism:

"You don't understand the pressure. Every year, we report BOSP to the office, to the inspectorate, up to the BPK. The report must be very detailed, receipts, stamps, photos, geotags, everything must be complete. If there is a slight error, even a wrong date, it becomes a 'finding' (temuan). A finding means we might have to return money from our own pockets. It is terrifying." (P1)

This narrative reveals an Asymmetry of Accountability. The principals' energy is almost entirely consumed by Upward Accountability focused on fiscal correctness. The fear of financial penalty ("returning money") is visceral. In contrast, accountability to the immediate stakeholders, parents and students, is performative and thin.

"We conduct socialization to parents, yes. But we do not report in detail so parents know exactly what we bought or how it impacted their children. I report to parents during the annual meeting... only conveying budget posts in broad outlines. It's better that way; too much detail invites unnecessary trouble." (P1)

P2 corroborates this, highlighting how the "implementation" aspect of the budget is practically invisible in the reporting ecosystem. The system rewards the existence of a receipt, not the existence of a learning outcome.

"What is reported is usually only the use of BOSP funds—the receipts. The rest, the actual program results, hasn't really been reported formally. We only convey it to the committee verbally. There is no column in the application that asks: 'Did the students get smarter because of this purchase?'" (P2)

This creates a form of Goal Displacement. The goal of the school shifts from "educating students" to "producing a clean report." P3 expresses a sense of existential confusion and lack of agency caused by this system:

"I am sometimes confused about who to report the results of all activities in this school to. The financial reports have a standard format, rigid and exact. But learning impact reports? They do not exist. We are running in the dark regarding quality, as long as the lights are on regarding finance." (P3)

Theme 2: The Ontological Death of Tools (The “Sleeping Assets” Phenomenon)

The most tangible manifestation of the disconnect is the physical presence of "Sleeping Assets." During site observations, the researcher found pristine science kits, unopened interactive globes, and dust-covered sports equipment locked in glass cabinets. These objects possess physical presence but lack pedagogical existence.

P3 refers to these items as "not empowered" (tidak diberdayakan), a euphemism for waste.

"Teachers are enthusiastic during the planning meeting. They ask for this and that tool—'We need kits for the new curriculum!' We approve, we buy. But after procurement, often it is not empowered. The item is just stored in the cupboard or warehouse. It becomes a museum piece." (P3)

Phenomenologically, these tools experience Ontological Death. Drawing on Heidegger, a microscope that is locked away is present-at-hand (Vorhandenheit). It exists as an object of inventory, counted by the asset manager. It fails to become ready-to-hand (Zuhandenheit), an extension of the student's eye to explore the world.

When probed about why these assets sleep, the principals revealed a complex mix of lack of competence and fear of liability.

"It's a dilemma. If they use it, they might break it. If they break it, the asset report will show a loss, and I have to explain it to the asset bureau. It is safer to keep it in the box. At least when the auditor comes and asks 'Where is the microscope?', I can show it immediately. Shiny and new." (P2)

This reveals a perverse incentive structure. The bureaucratic system implicitly penalizes the wear-and-tear that comes with genuine usage, while rewarding the pristine condition of unused assets. Furthermore, there is a gap in Technological Pedagogical Content Knowledge (TPACK). Funds are used to buy hardware (the tool) but rarely used to buy the "software" (the training to use the tool), because training outcomes are harder to prove in a financial report than a hardware receipt.

Theme 3: The Illusion of External Evaluation

Principals theoretically rely on school supervisors (Pengawas Sekolah) to bridge the gap between administration and instruction. However, the findings suggest that supervision has become another ritual of the "Bureaucratic Panopticon."

P2 describes visits from supervisors as superficial and focused on compliance checklists rather than clinical supervision.

"The supervisor comes, sits in my office, checks the administration—RPP (lesson plans), syllabus, cash book. Then they say 'good, administration is complete, carry on'. The feedback is too general. They rarely go into the classroom to see if the tools we bought are actually being used." (P2)

This generates a sense of professional loneliness. P3, despite his anxiety, craves genuine critique that could guide his leadership.

"I actually expect the supervisor to give a lot of input, sharp criticism about what is wrong in our school. 'Your teachers are not teaching well,' or 'This program is a waste of money.' But it rarely happens. It's all very polite, very normative. It's like a tea ceremony—everyone smiles, forms are signed, and nothing changes." (P3)

The external evaluation acts as a mechanism of Legitimation rather than Diagnosis. It validates the school's existence within the bureaucratic structure but fails to diagnose the "illness" of the sleeping assets. The supervisor becomes an accomplice in the Loose Coupling, validating the formal structure while ignoring the technical core.

Symbolic Compliance and the Iron Cage

The findings of this study vividly illustrate how Weber's "Iron Cage" of rationality operates in Indonesian schools. The strict adherence to financial regulations—intended to prevent corruption—has morphed into a mechanism that stifles pedagogical vitality. The principals in Tomohon act as "Administrative Gatekeepers" rather than "Instructional Leaders," not by choice, but by survival instinct.

This confirms Weick's (1976) Loose Coupling theory but adds a coercive dimension. In the Western context, loose coupling is often a strategy used by schools to maintain autonomy (Orton & Weick, 1990). In this context, loose coupling is a consequence of rigid control. The administration is tight (coupled), but the link to the classroom is broken (loose). The school succeeds as a bureaucracy (clean audit) but fails as an educational institution (unused tools).

Fetishism of Educational Commodities

The phenomenon of "Sleeping Assets" can be analyzed through the lens of Commodity Fetishism. The education system fetishizes the possession of modern tools. Principals and teachers fall into the trap of believing that "having" (having) equates to "improving" (improving). The interactive projector becomes a totem of modernity. As long as it is present, the school feels modern.

This represents a Fallacy of Misplaced Concreteness (Whitehead, 1925). The abstract idea of "quality education" is misplaced onto the concrete object (the tool). The system validates this fallacy: the government measures educational investment by the number of tools distributed or purchased, not by the frequency of their use. This leads to a massive inefficiency in public spending, where the Return on Investment (ROI) in education is near zero for capital expenditures.

The Failure of TPACK and Maintenance Culture

The "Ontological Death" of tools is also a symptom of a systemic failure to integrate TPACK (Mishra & Koehler, 2006). The procurement process is divorced from professional development. The findings suggest a policy blindness: In Tomohon, procurement policy (Capital Expenditure) is rigidly

separated from training policy (Personnel Expenditure), creating a competence gap that paralyzes asset utilization. As argued by Umbase (2023) in the local context, technology without pedagogical management capacity renders tools ineffective.

To resolve this disconnect, a paradigm shift is needed from Vertical-Bureaucratic Accountability to Horizontal-Professional Accountability (Hargreaves & O’Connor, 2018).

- 1) Redefining "Audit": Audits should not be limited to financial regularity. An "Educational Audit" is needed, where auditors (or supervisors) verify the utilization rate of assets.
- 2) Asset Depreciation Policy: Regulations should recognize that learning tools should wear out. A broken beaker in a science lab should be celebrated as a sign of activity, not investigated as a potential loss of state assets.
- 3) Capacity Building: Budget codes must be flexible enough to bundle every hardware purchase with mandatory training hours.

CONCLUSION

This phenomenological inquiry concludes that the management of public schools in Tomohon is trapped in a state of Accountability Asymmetry. The lived experience of principals is dominated by the fear of financial non-compliance, which systematically drains the energy needed for instructional leadership. The "Sleeping Assets" are not merely administrative oversights; they are symptoms of a deeper systemic pathology where the symbol of education (the tool) is valued over the act of education (the usage). Decentralization has successfully transferred money and authority to schools, but it has failed to transfer the courage to focus on quality over compliance. Without a radical restructuring of the accountability framework—one that values the "messy" reality of learning over the "clean" reality of bookkeeping—Indonesian schools will remain museums of modern equipment, inhabited by teachers and students who are spectators rather than users of technology.

Recommendations

For policymakers, it is urgent to simplify financial reporting (e.g., using lump-sum reporting for small expenditures) to free up principals' cognitive bandwidth. For school supervisors, a retraining program is necessary to shift their role from administrative inspectors to pedagogical coaches who can diagnose and unlock the potential of sleeping assets.

Based on the limitations of this study, future research is recommended to: (1) Conduct ethnographic studies on the role of "School Operators" as shadow actors in digital reporting; (2) Quantitatively test the correlation between financial audit strictness and teacher innovation levels in the classroom; and (3) Explore the perspective of school supervisors to understand why their feedback tends to be blunt and normative.

REFERENCES

Alvunger, D., Soini, T., Philippou, S., & Priestley, M. (2021). Curriculum making in Europe: Policy and practice within and across diverse contexts. *European Journal of Curriculum Studies*, 5(1), 1–20.

- Aydos, T., Perry, L. B., & McConney, A. (2024). The impact of accountability policies on school leadership and teacher practice: A systematic review. *Educational Management Administration & Leadership*, 52(1), 133–155.
- Biesta, G. (2010). *Good education in an age of measurement: Ethics, politics, democracy*. Paradigm Publishers.
- Blaschke, L. M. (2021). The role of heutagogy in digital leadership. *Journal of Applied Learning & Teaching*, 4(1), 1–13.
- Brod, C. (1984). *Technostress: The human cost of the computer revolution*. Addison-Wesley.
- Caldwell, B. J. (2005). *School-based management*. International Academy of Education.
- Cheng, Y. C. (1996). *School effectiveness and school-based management: A mechanism for development*. Falmer Press.
- Darling-Hammond, L. (1989). Accountability for professional practice. *Teachers College Record*, 91(1), 59–80.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.
- Endo, R., Awaluddin, I., & Sujoso, A. D. (2025). Distributed leadership in Indonesian schools: Practices and challenges. *Journal of Educational Administration*, 63(1), 920–938.
- Gadamer, H. G. (2004). *Truth and method* (2nd rev. ed.). Continuum.
- Grissom, J. A., Egalite, A. J., & Lindsay, C. A. (2021). *How principals affect students and schools: A systematic synthesis of two decades of research*. The Wallace Foundation.
- Hallinger, P., Gümüş, S., & Bellibaş, M. S. (2020). 'Are principals instructional leaders yet?' A science map of the knowledge base on instructional leadership, 1940–2018. *Scientometrics*, 122(3), 1629–1650.
- Hargreaves, A., & O'Connor, M. T. (2018). *Collaborative professionalism: When teaching together means learning for all*. Corwin Press.
- Heidegger, M. (1962). *Being and time*. Harper & Row.
- Ihde, D. (1990). *Technology and the lifeworld: From garden to earth*. Indiana University Press.
- Lamatokan, A., Rahmat, A., & Herawati, T. (2024). Financial reporting versus program reporting in school-based management. *International Journal of Evaluation and Research in Education*, 13(4), 2130–2140.
- Mandinach, E. B., & Schildkamp, K. (2021). Misconceptions about data-based decision making in education: An exploration of the literature. *Studies in Educational Evaluation*, 69, 100842.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054.
- Nelson, J. A., Grissom, J. A., & Cameron, M. (2021). Principals' perceptions of principal evaluation. *Educational Administration Quarterly*, 57(4), 600–634.
- Nuryana, A., & Hidayat, R. (2022). The paradox of school autonomy in Indonesia: Finance vs. quality. *Journal of Educational Administration*, 60(2), 112–128.
- OECD. (2023). *PISA 2022 results (Volume I): The state of learning and equity in education*. OECD Publishing.

The Disconnect between Financial Compliance and Pedagogical Utility in School Management: A Phenomenological Study on “Sleeping Assets” and Bureaucratic Rituals
Novie Noldy Johanes Rompis, Henny Nikolin Tambingon, Rolles N. Palilingan, Ruth Umbase

- Orton, J. D., & Weick, K. E. (1990). Loosely coupled systems: A reconceptualization. *Academy of Management Review*, 15(2), 203–223.
- Rosser, A. (2018). *Beyond access: Making Indonesia's education system work*. Lowy Institute.
- Sari, E. R., & Tanjung, F. (2023). Financial management competence of school principals. *Journal of Indonesian Education*, 29(1), 45-56.
- Skedsmo, G., & Huber, S. G. (2021). Top-down accountability and school leadership: Responsiveness and strategy. *Educational Assessment, Evaluation and Accountability*, 33(1), 1–8.
- Spillane, J. P. (2006). *Distributed leadership*. Jossey-Bass.
- Strathern, M. (2000). *Audit cultures: Anthropological studies in accountability, ethics and the academy*. Routledge.
- Tambingon, H. N. (2022). Intervensi politik dalam dunia manajemen pendidikan di Indonesia. *Jurnal Pendidikan dan Konseling (JPDK)*, 4(5), 170-176.
- Tarique, I., Briscoe, D. R., & Schuler, R. S. (2022). *International human resource management (6th ed.)*. Routledge.
- Umbase, R. S. (2023). Implementing technological pedagogical and content knowledge from the social studies learning management perspective. *International Journal of Learning, Teaching and Educational Research*, 22(4), 18-35.
- Van Waeyenberg, T., Peccei, R., & Decramer, A. (2020). Performance management and teacher performance: The role of affective organizational commitment and exhaustion. *The International Journal of Human Resource Management*, 33(4), 623–646.
- Verbeek, P. P. (2005). *What things do: Philosophical reflections on technology, agency, and design*. Penn State Press.
- Viennet, R., & Pont, B. (2017). *Education policy implementation*. OECD Education Working Papers.
- Weick, K. E. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly*, 21(1), 1-19.
- Whitehead, A. N. (1925). *Science and the modern world*. Macmillan.
- World Bank. (2020). *The promise of education in Indonesia*. World Bank.