

Context-Responsive Managerial Skills and Character-Centred School Quality: Implications for SDGs 4, 16, and 17 in Eastern Indonesia

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DOI : <https://doi.org/10.63230/jocsis.3.1.316>

Sections Info

Article history:

Submitted: February 18, 2026

Final Revised: April 20, 2026

Accepted: June 6, 2026

First Available Online: August 9, 2026

Publication Date: March 27, 2027

Keywords:

Character-Centred School Quality;
Managerial Skills;
Multi-Site Case Study;
School Leadership;
Sustainable Development Goals.

ABSTRACT

Objective: To examines how principals integrate conceptual, human, and technical managerial skills to strengthen school quality across three Catholic secondary schools in Eastern Indonesia and interprets the relevance of these practices to SDGs 4, 16, and 17. **Method:** A multi-site case study was conducted in three schools governed by the same foundation but differentiated by mission, resources, and performance conditions. Purposively selected participants represented principals, vice-principals, teachers, and foundation leadership; the source documentation did not provide one consolidated participant total. Data from in-depth interviews, participant observation, and documentary analysis were examined within each site through condensation, display, and conclusion drawing, followed by cross-site comparison and triangulation. **Results:** Conceptual skill was expressed through school self-evaluation, SWOT analysis, vision and mission review, priority setting, and the alignment of school work plans and budgets. Human skill mobilised implementation through motivation, dialogue, active listening, recognition, delegation, stakeholder participation, and partnership building. Technical skill embedded priorities in instructional supervision, curriculum and assessment coordination, teacher development, remedial and enrichment support, learning-resource management, discipline, and accountable administration. Across the sites, these skills operated as a recursive improvement process. School quality combined standards compliance and academic and non-academic performance with integrity, character, faith, civic responsibility, local wisdom, and social trust. **Novelty:** The study advances Katz's framework from a three-part taxonomy to a context-responsive improvement mechanism and offers a character-centred conception of school quality for faith-based and resource-differentiated settings, while linking the findings analytically-not as original field indicators – to the governance principles of SDGs 4, 16, and 17.

INTRODUCTION

School leadership is increasingly understood as an organisational capability that shapes the conditions under which teaching, professional learning, and student development occur. Contemporary reviews and meta-analyses show that principals influence outcomes chiefly through indirect organisational pathways: setting direction, improving instructional conditions, developing teachers, building a productive climate, and aligning resources with priorities (Day et al., 2016; Hitt & Tucker, 2016; Liebowitz & Porter, 2019; Shen & Wu, 2025; Tan et al., 2022). Evidence from low- and middle-income systems similarly indicates that school-management interventions are most promising when they strengthen routines, information use, accountability, and leaders' capacity to translate policy into daily practice (Anand et al., 2023). The analytically important question is therefore not simply whether leadership matters, but how managerial capabilities are combined in particular institutional and cultural settings.

The original fieldwork did not operationalise Sustainable Development Goal indicators; consequently, the SDG alignment offered here is interpretive rather than evaluative. The study relates most directly to SDG 4 because it examines managerial

conditions supporting teaching quality, teacher development, remedial and enrichment provision, learning resources, and character education. Participatory planning, accountable administration, discipline, and integrity connect the findings to SDG 16, while collaboration among Yasukda, school committees, families, communities, and education authorities connects them to SDG 17 (United Nations, 2015). This framing preserves the empirical scope of the source study while clarifying its relevance to sustainable educational governance.

This contextual question is especially salient in geographically peripheral and resource-differentiated settings. Principals do not exercise leadership under uniform conditions: teacher availability, facilities, funding, family resources, school history, and community expectations shape what leaders can prioritise and how their decisions are interpreted (Brauckmann et al., 2023; Hallinger, 2018; Tan, 2024). Studies from Türkiye and rural Indonesia likewise show that instructional leadership and school improvement are constrained and enabled by local resources, institutional expectations, cultural legitimacy, and multi-stakeholder relationships (Cansoy et al., 2025; Juharyanto et al., 2020; Mazhabi, 2026). Context-responsive leadership therefore requires diagnosis, adaptive judgement, and the integration of strategic, relational, and operational work.

The present study examines three senior secondary schools administered by the Yayasan Persekolahan Umat Katolik Ngada (Yasukda) in Ngada Regency, East Nusa Tenggara: SMA Katolik Regina Pacis Bajawa, SMA Katolik Santo Thomas Aquino Mataloko, and SMA Seminari Santo Yohanes Berkhmans Todabelu-Mataloko. The schools share foundation governance and a Catholic educational orientation but differ in history, mission, facilities, enrolment profiles, and performance conditions. Regina Pacis experienced strong community demand; Santo Thomas Aquino operated with more visible funding and facility constraints while developing notable non-academic achievement; and the seminary school combined the national curriculum with a distinctive religious-formation mission. These contrasts make the three sites suitable for examining how similar quality aspirations are pursued under differentiated conditions.

A useful but underdeveloped lens for analysing such work is Katz's three-skill framework. Katz (1974) distinguished conceptual, human, and technical skill. Conceptual skill concerns seeing the organisation as a whole, diagnosing relationships, and formulating strategic direction; human skill concerns working effectively with and through people; and technical skill concerns proficiency in the procedures, methods, and specialised knowledge required for operational performance. The framework remains valuable because it does not reduce management to administration. Nevertheless, educational studies often treat the three skills as parallel attributes or checklist variables. Less attention has been paid to the way they become sequenced and mutually reinforcing practices through which a principal moves from contextual diagnosis to collective action and instructional follow-through.

A second gap concerns what counts as school quality. Conventional indicators appropriately include standards compliance, teaching quality, graduation, achievement, safety, organisational effectiveness and stakeholder satisfaction (Dahlgard et al., 2008; Sallis, 2002). In faith-based and culturally embedded schools, however, quality is also normatively defined. It may encompass character, integrity, service, spirituality, citizenship, tolerance and the capacity to live responsibly in community. When these dimensions are treated merely as extracurricular additions, research misses how they influence vision, staffing, discipline, curricular decisions and stakeholder trust. The three Yasukda schools provide an opportunity to examine a broader, character-centred quality construct without dismissing academic and regulatory dimensions.

Conceptual and theoretical foundation

The strongest contemporary accounts of school leadership reject a simple direct-effects model. Principals influence learning by designing organisational conditions that improve the quality and coherence of teachers' work. These conditions include shared direction, protected instructional time, purposeful professional learning, collective efficacy, data-informed monitoring, and an orderly, supportive climate (Leithwood et al., 2020; Robinson et al., 2008). Recent evidence further links instructional and learning-centred leadership to teacher self-efficacy, collaboration, professional learning, and classroom practice (Bellibaş et al., 2021; Gümüş & Bellibaş, 2020; Kulophas & Hallinger, 2020; Liu et al., 2016; Liu & Hallinger, 2018; Özdemir, 2020; Qian & Walker, 2021; Talebizadeh et al., 2021). Relational commitment without instructional focus may lack pedagogical leverage, whereas technical monitoring without trust may become compliance-oriented.

Recent research strengthens the case for contextual and cultural moderation. Tan (2024) found that school and family resources shaped the enactment of principal leadership, while cross-cultural meta-analytic evidence indicates that leadership effects vary across institutional and cultural settings (Karadağ & Sertel, 2026; Shen & Wu, 2025). Studies in Indonesia also show that effective leadership in rural and changing environments depends on contextual intelligence, community legitimacy, communication, and the mobilisation of local support (Juharyanto et al., 2020; Mazhabi, 2026). These findings are pertinent to the Yasukda schools, where collective deliberation, relational harmony, and stakeholder confidence influenced whether formal plans became workable commitments.

Quality management adds a continuous-improvement orientation. Rather than treating quality as a final inspection, total quality perspectives emphasise stakeholder needs, process reliability, prevention of recurring problems, evidence use, shared responsibility and iterative improvement (Dahlgard et al., 2008; Sallis, 2002). For schools, this means linking strategy, teaching, resource management, student support, monitoring and feedback. A principal's contribution is therefore best understood as the orchestration of a quality system rather than the performance of isolated heroic acts.

Katz's three managerial skills in educational organisations

Katz's framework differentiates three forms of managerial competence. Conceptual skill enables leaders to interpret the organisation as an interdependent system, recognise patterns, anticipate consequences and formulate priorities. In schools, it includes analysing internal and external conditions, connecting vision to programmes, allocating resources strategically and balancing short-, medium- and long-term needs. Human skill is the capacity to understand, motivate and work with individuals and groups. It includes communication, listening, conflict resolution, recognition, delegation, trust building and partnership. Technical skill is proficiency in specialised procedures and work processes. For principals, it includes instructional supervision, curriculum scheduling, assessment coordination, student-support systems, documentation, budgeting and administrative accountability.

The three domains are analytically distinct but practically interdependent. Strategic plans do not implement themselves; they require relational legitimacy and operational competence. Human skill is not merely interpersonal warmth; it creates the psychological and social conditions in which professional feedback can be accepted. Technical routines are not neutral; their value depends on whether they are directed by coherent priorities and enacted through respectful relationships. Thus, an integrated reading of Katz

suggests a temporal and recursive sequence: diagnose and conceptualise, mobilise people, operationalise and monitor, then feed evidence back into renewed diagnosis.

Educational leadership research has developed adjacent concepts—learning-centred leadership, distributed leadership, teacher leadership, and professional learning communities. Systematic reviews show that these models differ in emphasis but commonly require leaders to connect direction, professional learning, collaboration, and instructional improvement (Boyce & Bowers, 2018; Gümüş et al., 2018). Katz’s framework remains useful because it identifies the managerial capabilities that make these arrangements workable and provides a common language for multi-site comparison without requiring every school to enact the skills in identical ways.

Context-responsive and character-centred quality

Context-responsive leadership entails more than adapting to scarcity. It requires principals to decide which contextual features should be accommodated, which should be changed, and which educational values should remain non-negotiable. Context therefore belongs at the centre rather than the margins of leadership analysis (Hallinger, 2018). Comparative and context-sensitive research further shows that leadership concepts travel imperfectly across settings unless they are translated through local norms, institutional realities, and stakeholder expectations (Cansoy et al., 2025; Dimmock & Walker, 2000; Juharyanto et al., 2020; Mazhabi, 2026; Walker & Hallinger, 2015).

In the schools examined here, quality is embedded in Catholic educational commitments and local social life. The source study treats school quality as more than compliance with the National Education Standards or the production of examination results. It also includes academic and non-academic development, effective organisational processes, character education, disciplined and moral conduct, religious and civic values, respect for local wisdom, and harmonious fraternity among school members. Character and achievement are therefore interpreted as mutually reinforcing dimensions of a coherent school environment.

Accordingly, this article asks three questions: (1) How are conceptual, human, and technical managerial skills enacted by principals in the three Yasukda schools? (2) How do these skills contribute to school-quality improvement across differentiated school contexts? and (3) How can the empirically documented practices be interpreted in relation to SDGs 4, 16, and 17? The article retains the source study’s three research foci while using cross-site synthesis to clarify their interrelationship.

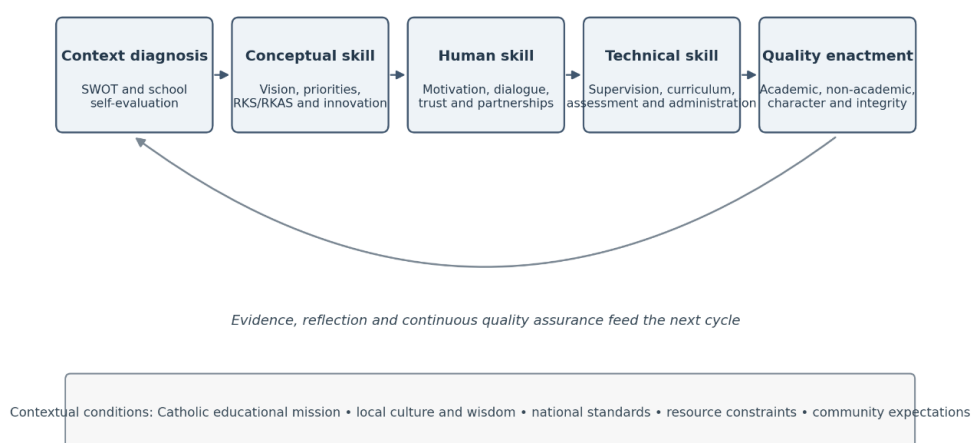


Figure 1. Data-grounded analytical synthesis of context-responsive managerial skills for school-quality improvement

RESEARCH METHOD

Research design

Research design and study setting

The study used a qualitative multi-site case-study design to describe managerial-skill enactment in the natural settings of three Yasukda senior secondary schools. Each school was analysed as an individual site, after which the findings were compared across sites to identify convergent patterns, contextual differences, and final cross-site propositions. The design was descriptive and interpretive rather than experimental or causal.

The study did not estimate the statistical effect of managerial skills on student achievement. It reconstructed how participants, observations, and documents connected principal practices with school processes and perceived quality improvement. Claims in this article therefore concern reported practices, cross-site patterns, and analytical propositions rather than causal magnitudes.

The three sites were selected purposively because they were governed by the same foundation but differed in history, educational mission, infrastructure, and performance profile. The shared governance created a common institutional frame, whereas the differences enabled the researcher to examine how contextual conditions shaped the enactment of the same three managerial-skill domains.

Table 1. Study sites and evidentiary focus

Case	Contextual profile	Main evidentiary focus
Site 1: Regina Pacis Catholic School, Bajawa	General Catholic senior secondary school with strong community High demand, a comparatively broad programme profile, and sustained completion outcomes.	Interviews, observation, and documents concerning SWOT-based planning, RKS/RKAS, vision and mission, morning briefing, supervision, achievement, administration, and stakeholder participation.
Site 2: St Thomas Aquinas High School, Mataloko	General Catholic senior secondary school operating with visible funding Catholic and facility constraints; academic indicators were below national comparators, while non-academic achievement developed strongly.	Interviews, observation, and documents concerning resource adaptation, teaching programmes, supervision, student support, extracurricular development, partnerships, and quality planning.
Site 3: St John Berkhmans Seminary School, Todabelu-Mataloko	Catholic seminary senior secondary school with a distinctive religious-High formation mission, long institutional history, and strong emphasis on character and communal life.	Interviews, observation, and documents concerning strategic planning, formation, curriculum, supervision, remedial and enrichment support, community participation, and foundation relationships.

Participants and data sources

Participants were selected purposively because of their direct involvement in school leadership and quality improvement. The methods record identifies the three principals; vice-principals responsible for curriculum, student affairs, and facilities at each school; teacher representatives; and the chair of the Yasukda foundation. The results chapters additionally contain role-coded evidence from committee representatives and students. Because the source documentation does not consolidate every reported role into one

internally verified total, the manuscript reports transparent participant categories rather than inferring a numerical sample.

The evidence base comprised three sources. First, formal and informal in-depth interviews explored conceptual, human, and technical managerial practices. Second, participant observation documented leadership interactions, learning activities, school routines, facilities, and programme implementation. Third, documentary analysis examined school profiles and histories, organisational structures, RKS and RKAS documents, annual and medium-term plans, vision and mission statements, supervision instruments, curriculum and teaching records, achievement data, and administrative reports. Participant-role reporting was therefore used as the most defensible representation of the sample. This approach preserves the source record, avoids false precision, and allows readers to judge the breadth of perspectives included in the cross-site analysis.

Data collection

Interviews were conducted in formal and informal formats using guides organised around the three research foci: conceptual, human, and technical skills. Participants were asked about planning, communication, motivation, delegation, supervision, curriculum implementation, assessment, learning support, administration, and perceived school-quality outcomes. The source study records the use of audio recording, documentation, and participant consent, and it allowed follow-up questions to clarify site-specific practices.

Participant observation was used to compare interview accounts with visible school practices and conditions. Field observations addressed leadership interaction, teacher collaboration, classroom and programme activity, student discipline, supervision, facilities, and the use of learning resources. Documentary evidence was used to corroborate or qualify the interview and observation data.

Data analysis

Analysis followed the interactive processes of data condensation, data display, and conclusion drawing/verification (Miles et al., 2014). Within each site, interview, observation, and documentary evidence was organised around the three research foci and presented in descriptive narratives, tables, and site findings. The researcher then compared the provisional findings from the three schools using cross-site analysis to identify common findings, meaningful differences, and final propositions.

Cross-site analysis followed the source study's replication logic: findings from Regina Pacis, Santo Thomas Aquino, and the St John Berkhmans Seminary were grouped by research focus, compared, interpreted against the theoretical framework, and combined into final cross-site findings. Differences in facilities, academic indicators, school mission, and programme emphasis were retained rather than treated as error or noise.

For this article, the final cross-site findings were further organised into a data-grounded analytical pathway: contextual diagnosis supported conceptual planning; relational practices mobilised implementation; technical routines operationalised programmes; and evaluation supported revision. This organisation clarifies the relationship among the three skills while remaining consistent with the source study's qualitative and non-causal design.

Trustworthiness and researcher role

The researcher was the primary instrument for research design, field engagement, data collection, analysis, and reporting. The source study describes prolonged engagement, persistent observation, triangulation across sources and methods, peer debriefing, negative-case analysis, and member checking as credibility procedures. Dependability was addressed through an audit of the research process; confirmability through source confirmation and review by supervisors and examiners; and transferability through detailed contextual description (Lincoln & Guba, 1985).

The shared Catholic identity of the three schools facilitated contextual understanding but also created a risk of overly favourable interpretation. The use of multiple sources, cross-site comparison, negative-case analysis, and explicit reporting of facility and academic-performance differences helped reduce that risk.

Ethical considerations

The source study documents participant information, consent procedures, respectful interviewing, and permission to record interviews. Participant names are not reproduced in this article; role-based field codes are used for illustrative extracts. No institutional ethics-approval or exemption reference was recorded in the supplied study documentation, and this absence is reported transparently. The study was conducted with attention to voluntary participation, confidentiality, role-based reporting, and the responsible use of school documents.

RESULTS AND DISCUSSION

Results

Cross-site analysis produced four related findings. First, conceptual skill enabled principals and school-development teams to diagnose school conditions and translate them into plans. Second, human skill created the relational conditions for staff and stakeholder participation. Third, technical skill embedded priorities in supervision, teaching support, assessment, student assistance, discipline, and administration. Fourth, the article's cross-site synthesis indicates that these practices formed a linked improvement pathway whose quality outcomes combined national standards, performance, character formation, and stakeholder confidence. Table 2 summarises the evidence.

Table 2. Cross-site pattern matrix.

Domain	Cross-site commonality	Contextual variation	Quality pathway
Conceptual	School self-evaluation and SWOT analysis; RKS/RKAS, including RKT, and medium-term planning; vision and mission formulation or revision; priorities; innovative programmes; stakeholder meetings.	Programme emphasis differed by site, clean and healthy school activities, morning briefing, teacher development, extracurricular expansion, resource adaptation, and seminary formation.	Strategic direction, programme-budget alignment, staged priorities, and context-sensitive development.

Domain	Cross-site commonality	Contextual variation	Quality pathway
Human	Motivation; harmonious work climate; recognition of teacher and student achievement; clear and communication; listening; democratic delegation; each school's cooperation; community and resources, and committee participation; institutional mission. partnerships.	Forms of recognition, intensity of networking, stakeholder involvement reflected each school's needs, and additional resources.	Trust, shared responsibility, staff ownership, stakeholder support, and access to additional resources.
Technical	Scheduled supervision, generally twice per academic year; teaching evaluation and improvement; curriculum and timetable coordination; assessment; diagnosis of learning difficulties; remedial/enrichment support; learning media; discipline; administration.	Supervision included individual, group, scheduled, and in some accounts unannounced forms; implementation was adapted to available staff, facilities, and finance.	Improved instructional routines, teacher support, student learning assistance, orderly school operations, and administrative accountability.
Integrated quality	Planning, relational mobilisation, technical implementation, evaluation, and revision were linked in practice; character and local values were embedded in programmes and routines.	Completion outcomes were strong, but facilities and academic indicators were unequal; quality did not mean identical conditions or results across sites.	National-standards compliance, academic and non-academic development, character, integrity, local wisdom, fraternity, and stakeholder confidence.

Conceptual skill: diagnosing context and constructing strategic coherence

Across the three schools, conceptual skill began with school self-evaluation and SWOT analysis conducted with school-development teams. The purpose was to identify strengths, weaknesses, opportunities, threats, and the actual condition of programmes and resources before new priorities were formulated. The evidence therefore locates conceptual skill in context diagnosis rather than in abstract vision statements alone.

Diagnostic findings were translated into RKS and RKAS documents, annual work plans, medium-term plans, schedules, and budget priorities. Planning covered teaching and learning, extracurricular activities, character habituation, school-based management, libraries, clean and healthy school programmes, teacher professional development, and quality assurance. Teachers, staff, school committees, the foundation, community representatives, and education supervisors were involved to varying degrees across the sites.

Vision, mission, and school goals were formulated or revised in relation to school characteristics and development needs and were then socialised through meetings, displays, and school media. The common planning logic did not produce identical priorities. The seminary placed stronger emphasis on religious formation and character, whereas the two general secondary schools balanced Catholic values with broader academic, extracurricular, and community expectations.

Innovation took context-specific forms. The source study records clean and healthy school activities, morning briefing before instruction, professional training for teachers, the use of recycled materials as learning media, remedial and enrichment arrangements,

extracurricular expansion, and staged responses to facility limitations. These practices were meaningful because they responded to diagnosed needs rather than because any single programme was universally applicable.

“A school-development plan must produce real and continuous improvement. I involve teachers, staff, committee members, and community representatives so that the resulting programmes are directed toward improving school quality.”

Principal, Site 3 (translated from Indonesian; W3/KS3, 13 August 2023)

The conceptual pattern can be summarised as school self-evaluation and SWOT analysis → priority formulation → RKS/RKAS and staged planning → communication and implementation. Its principal contribution was coherence between school conditions, school identity, programmes, and resources. The constrained site also showed that conceptual skill included realistic sequencing and partnership building rather than planning as though resources were equal.

Human skill: converting formal plans into collective capacity

Human skill was expressed through motivation, understanding of staff and student circumstances, the creation of a harmonious and disciplined work climate, recognition of achievement, and a non-authoritarian leadership orientation. Principals provided encouragement through conversations and meetings, opportunities for professional development, public appreciation, certificates or rewards, and direct support for academic and non-academic achievement.

Communication clarified duties and schedules, created space for teachers and committees to propose solutions, and connected schools with the foundation, families, communities, and education authorities. The source study repeatedly emphasises effective communication, listening, diplomacy, negotiation, and openness to correction. Dialogue was therefore not merely courteous interaction; it was a managerial means of identifying problems and building support for school development.

Delegation was based on competence, interest, experience, and proportional responsibility. Principals distributed teaching assignments, programme leadership, extracurricular work, and administrative responsibilities while retaining monitoring and accountability. The source study characterises this approach as democratic and supportive rather than authoritarian.

Partnership and networking were particularly important where internal resources were limited. School committees, parents, the foundation, community figures, and government education personnel were involved in planning, programme support, facilities, and school-quality discussions. Human skill thus linked internal cooperation with the mobilisation of external support.

“I have built good cooperation with teachers, staff, and committee members when discussing school-development programmes. We agree on annual work and budget plans so that the school’s vision, mission, and goals can be achieved.”

Principal, Site 3 (translated from Indonesian; W3/KS3, 14 August 2023)

The human-skill pattern can be summarised as motivation and appreciation → clear communication and listening → participation and democratic delegation → cooperation and partnership. Its contribution was collective capacity: plans became shared responsibilities and schools gained relational support for implementation.

Technical skill: institutionalising instructional and administrative quality

Technical skill became visible in recurring instructional and administrative procedures. The clearest cross-site routine was principal supervision, generally conducted twice during an academic year. Principals prepared schedules, instruments, and communication in advance and used individual, group, scheduled, and, in some accounts, unannounced supervision. A personal and respectful approach was emphasised so that supervision supported improvement rather than punishment.

Supervision findings were followed by discussion, teaching improvement, revision of instructional programmes, professional learning opportunities, and monitoring. At Regina Pacis, morning briefing before lessons or during breaks provided an additional forum for discussing teaching difficulties and solutions. Teachers were also encouraged to attend workshops, training, professional courses, or further study.

Technical management included aligning teaching assignments, timetables, curriculum requirements, facilities, and staff availability. Principals coordinated student assessment, encouraged diagnostic assessment of learning difficulties, and directed remedial, enrichment, peer-support, and additional-time arrangements. They also promoted the use of learning media and, where resources were limited, innovation with locally available or recycled materials.

Operational quality extended to school rules, attendance, teacher responsibility, student discipline, administrative documentation, reporting, and school-based management. Principals monitored the application of rules and coordinated with provincial supervisors and foundation structures. These routines demonstrate that technical skill in the source study included both instructional leadership and administrative accountability.

“I usually enter the classroom and observe the learning process directly. I conduct this individual supervision twice in an academic year and use a personal, friendly approach so that teachers feel respected.”

Principal, Site 3 (translated from Indonesian; W3/KS3, 15 August 2023)

The technical pattern can be summarised as schedule and prepare → observe and evaluate → provide feedback and professional support → coordinate student assistance, discipline, and administration. Its contribution was to make school-quality priorities visible in repeatable procedures.

The integrated cycle and the expanded meaning of school quality

The source study presents conceptual, human, and technical skills as distinct research foci, yet the cross-site evidence shows that they were enacted in combination. SWOT analysis and planning required dialogue and stakeholder support; motivation and cooperation required clear roles and programmes; and supervision required conceptual priorities and respectful relationships. The integrated pathway proposed in this article is therefore a synthesis of the empirical findings rather than an additional variable measured in the original study.

The data-grounded proposition is that school-quality improvement becomes more coherent when principals diagnose school conditions, translate the diagnosis into vision-aligned plans and budgets, mobilise teachers and stakeholders through human relations, implement priorities through supervision and technical coordination, and use evaluation to revise subsequent programmes. The proposition is conditional: resources, teacher capacity, school mission, and institutional support shape what each principal can accomplish.

A second integrative finding concerns the meaning of quality. Documentary records show 100% graduation at Santo Thomas Aquino and the St John Berkhmans Seminary across 2019/2020–2021/2022. Regina Pacis recorded 100% in the first two years and 367 graduates from 368 students in 2021/2022, with one student recorded as having dropped out. These completion outcomes were important but not sufficient evidence of uniform quality: Santo Thomas Aquino also faced facility shortages and academic indicators below national comparators.

Across the sites, participants also defined quality through teaching, extracurricular achievement, character, discipline, faith, integrity, Pancasila values, tolerance, local wisdom, and harmonious fraternity. Community confidence was linked not only to graduation but also to observable conduct, school climate, safety, stakeholder relations, and the perceived character of graduates. Character-centred quality therefore complemented rather than replaced instructional and regulatory quality.

Table 3. Data-grounded analytical pathway linking managerial skills and school-quality improvement.

Stage	Principal practices	Intermediate contribution
Diagnose	School self-evaluation, SWOT analysis, A shared account of school review of prior programmes, stakeholder strengths, needs, opportunities, information, and identification of resource threats, and contextual limits. constraints.	
Conceptualise	Vision and mission alignment, RKS/RKAS and staged planning, priority setting, programme innovation, and resource allocation.	Strategic coherence and alignment between programmes, budgets, and school identity.
Mobilise	Motivation, listening, dialogue, recognition, democratic delegation, ownership, cooperation, and committee and community participation, external support. and partnership building.	
Operationalise	Supervision, teaching improvement, curriculum and timetable coordination, teacher development, student assessment, remedial and enrichment assistance, orderly operations, support, learning media, discipline, and administration.	Reliable instructional support, teacher development, student assessment, and accountability.
Learn and renew	Evaluate teaching and programmes, document findings, provide feedback, standards, academic and non-revise plans, and continue quality-assurance activities.	Ongoing improvement across standards, academic and non-academic outcomes, and character formation.

Discussion

From a three-skill taxonomy to an integrated improvement mechanism

The study supports Katz's distinction among conceptual, human, and technical skills while showing how they were combined in school practice. The source study's own findings place SWOT analysis, RKS/RKAS, vision and mission, motivation, communication, delegation, supervision, assessment, learning support, discipline, and administration within the three domains. The present synthesis adds that these practices formed a connected pathway from diagnosis to planning, mobilisation, implementation, and review.

This interpretation is consistent with research that treats leadership influence as organisational and indirect rather than as a direct effect on student outcomes. Leadership shapes teacher practice through direction, school climate, professional learning, collaboration, trust, and differentiated instructional support (Bellibaş et al., 2021; Day et al., 2016; Dutta & Sahney, 2016; Goddard et al., 2019; Liebowitz & Porter, 2019; Marks & Printy, 2003; Shen & Wu, 2025). In the Yasukda schools, principals shaped the conditions of teachers' work through professional support, feedback, coordination, and stakeholder relations. The findings should therefore be read as evidence about organisational mechanisms, not as proof of a quantified effect size.

The documented pathway began with school conditions and planning and continued through staff participation, instructional routines, student assistance, and programme evaluation. Strong completion data and community demand were consistent with perceived quality, but the qualitative design cannot attribute those outcomes solely to managerial skills. This distinction is important because the source study also records unequal resources and lower academic indicators at one site.

Context responsiveness under differentiated resources

The three schools shared Yasukda governance and Catholic educational values but did not operate under identical conditions. Regina Pacis experienced strong demand and a broad programme profile; Santo Thomas Aquino faced visible funding and infrastructure constraints and lower academic indicators while developing non-academic strengths; and the seminary had a distinctive formation mission. Context responsiveness therefore meant selecting priorities and technical arrangements that were feasible and appropriate for each site.

The evidence argues against copying a visible programme without reproducing the diagnosis and stakeholder process that made it relevant. Morning briefing, clean and healthy school activities, extracurricular expansion, recycled learning media, or a particular supervision format were local responses to particular needs. What is more transferable is the process of diagnosing, planning, mobilising, implementing, and reviewing.

The relational findings are culturally significant because the source study repeatedly describes family-like relations, fraternity, deliberation, committee participation, listening, and social harmony. Such practices are consistent with evidence that professional trust, collaboration, and stakeholder participation mediate the practical influence of leadership (Kulophas & Hallinger, 2020; Qian & Walker, 2021; Talebizadeh et al., 2021). In the three schools, relationality did not remove authority or accountability; it created conditions in which evaluation, discipline, delegation, and problem solving could be discussed and accepted.

Character-centred quality as organisational, not merely curricular

The study's strongest empirical novelty is its expanded quality construct. The source study explicitly concludes that quality in the three schools was not limited to the National Education Standards. It also included extracurricular development, character education, habituation of moral conduct, religious and civic values, local wisdom aligned with Pancasila, and harmonious fraternity among school members.

This finding extends a purely customer-satisfaction or examination-based view of school quality. Stakeholder expectations were interpreted through an educational mission that valued competent graduates and morally responsible persons. Character-centred quality influenced programme planning, school rules, recognition, student

support, extracurricular work, and community relations, making it an organisational rather than merely curricular dimension.

The findings caution against using graduation rates alone as proof of quality. Completion was consistently high, but the source data also document facility shortages and lower academic indicators at Santo Thomas Aquino. A multidimensional account is therefore more faithful to the evidence: schools may perform strongly in completion, character formation, and non-academic achievement while still requiring improvement in facilities and academic outcomes.

Alignment with the Sustainable Development Goals

The findings align directly with SDG 4 because principal practices supported instructional supervision, teacher professional development, curriculum coordination, learning media, diagnostic assessment, remedial and enrichment activities, extracurricular development, and character education. These are organisational conditions for quality education, although the source study did not measure equity, learning outcomes, or SDG 4 indicators through a standardised framework.

The findings align with SDG 16 through participatory school self-evaluation, RKS/RKAS planning, administrative accountability, consistent rules, integrity, and inclusive dialogue. They align with SDG 17 through cooperation among school leaders, teachers, committees, parents, Yasukda, communities, education supervisors, and government authorities. These connections should be understood as an analytical alignment between documented practices and SDG principles, not as evidence that the schools formally implemented or achieved the SDG targets.

Practical and policy implications

For principal preparation, the findings suggest that conceptual, human, and technical skills should be developed together through authentic school problems. Training should require principals to conduct school self-evaluation and SWOT analysis, formulate RKS/RKAS and staged priorities, communicate and delegate democratically, design supervision and student-support routines, and evaluate implementation.

For school foundations and education authorities, principal appraisal should examine the quality of the improvement process rather than the mere existence of documents. Evidence should show how school diagnosis informs programmes and budgets, how teachers and stakeholders participate, how supervision leads to teaching improvement, and how character and local values are translated into observable routines.

For school leaders, the analytical pathway provides a practical sequence: begin with credible school self-evaluation and SWOT analysis; select feasible priorities; connect them to vision, RKS/RKAS, and available resources; build ownership through communication, listening, recognition, and delegation; operationalise priorities through supervision and coordination; and use evaluation to revise subsequent plans.

For quality assurance, character-centred quality should be assessed through observable indicators such as integrity, discipline, respectful conduct, religious and civic responsibility, tolerance, participation, local-cultural respect, and the quality of relationships among school members. These indicators should complement evidence on teaching, learning, facilities, achievement, and national standards.

CONCLUSION

Fundamental Finding: The multi-site evidence shows that conceptual, human, and technical managerial skills were enacted through a connected set of practices. Conceptual

skill involved school self-evaluation, SWOT analysis, RKS/RKAS, vision and mission, and strategic programmes. Human skill involved motivation, harmonious relationships, recognition, communication, listening, democratic delegation, and partnership. Technical skill involved supervision, teaching improvement, curriculum and assessment coordination, student learning support, discipline, and administration. Together, these practices supported a character-centred conception of quality that combined national standards, academic and non-academic development, integrity, local values, and fraternity. **Implication:** The data-grounded pathway provides a practical framework for principal development and school-quality assurance: diagnose context, align plans and budgets, mobilise people, implement technical routines, and review results. It also clarifies the study's sustainability contribution: quality-education practices align with SDG 4, participatory and accountable governance with SDG 16, and multi-stakeholder cooperation with SDG 17. **Limitation:** The study examined only three Catholic senior secondary schools under one foundation in one regency, so transferability depends on contextual similarity. The source study does not provide one consolidated participant total, and participant roles are reported differently between the methods and results chapters. The design was qualitative and did not test causal effects or use common longitudinal indicators across all sites. The SDG alignment was added analytically for this article and was not an original measurement framework in the fieldwork. **Future Research:** Future studies should test the proposed pathway through mixed methods, compare Catholic and non-faith-based schools, establish transparent participant and case databases, and use repeated indicators of teaching quality, student learning, character development, facilities, stakeholder participation, and SDG-related outcomes. Comparative research should also examine how resource constraints alter the balance among conceptual, human, and technical skills.

ACKNOWLEDGEMENTS

The authors thank the three participating schools, Yayasan Persekolahan Umat Katolik Ngada, all participants, and the Graduate School of Universitas Negeri Surabaya for supporting the research process. No external funding was reported for this study.

AUTHOR CONTRIBUTIONS

Remigius Missa: Conceptualization, Methodology, Investigation, Data Curation, Formal Analysis, and Writing-Original Draft. **Maria Veronika Roesminingsih:** Supervision, Conceptual Guidance, Validation, and Writing-Review & Editing. **Bambang Sigit Widodo:** Supervision, Methodological Guidance, Validation, and Writing-Review & Editing. All authors reviewed and approved the final manuscript.

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no financial, professional, or personal conflicts of interest that could have influenced the research process, interpretation, or reporting of the findings.

ETHICAL COMPLIANCE STATEMENT

The study followed principles of voluntary participation, informed consent, confidentiality, respectful interviewing, and responsible use of institutional documents. Participant identities are protected through role-based reporting. The supplied dissertation documentation did not record an institutional ethics-review approval or exemption number; therefore, no approval number is claimed in this manuscript. The

authors affirm that the article is original and was prepared in accordance with research and publication ethics.

STATEMENT ON THE USE OF AI OR DIGITAL TOOLS IN WRITING

OpenAI's ChatGPT was used to support English-language editing, structural refinement, consistency checking, and alignment with the JOCSIS template. The tool was not used to generate, alter, or independently interpret the empirical data. All AI-assisted suggestions were critically reviewed and verified against the source study, and the authors retain full responsibility for the accuracy, originality, and integrity of the final manuscript.

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