

OPTIMIZING RURAL EDUCATION: INTEGRATING INTEGRATED QUALITY MANAGEMENT INTO THE EDUCATION SYSTEM AT PENDREH VILLAGE PUBLIC ELEMENTARY SCHOOL

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Abstract. Rural education often faces structural and cultural challenges, potentially creating a systemic quality gap. This study examines the implementation of Integrated Quality Management (IQM) at SDN Pendreh, combining the principles of Total Quality Management (TQM), learning organization, and community participation, as an effort to optimize basic education. Using a qualitative case study, findings indicate that IQM enhances quality through strengthening visionary leadership, improving teacher competence via peer coaching and reflection, and involving the community in quality oversight. Although barriers such as resource constraints and cultural resistance emerged, IQM implementation proved effective in increasing student learning outcomes and parent satisfaction. This model suggests a systemic quality framework relevant for other rural schools.

Keywords: Rural Education, Quality Management, Quality Improvement.

INTRODUCTION

Education in rural areas often faces structural and cultural challenges not found in urban areas, such as limited infrastructure, difficulty in accessing teacher training, and low community participation in school activities (Brew et al., 2021). These conditions risk creating a systemic gap in educational quality, particularly in learning outcomes and the development of student potential. Therefore, a systemic managerial intervention like Integrated Quality Management (IQM) has significant potential to consolidate quality elements that have previously operated in a fragmented manner. In a school context, IQM can integrate the principles of Total Quality Management (TQM), the learning organization, and community participation as a foundation for holistic quality management. This approach is expected to foster synergy among stakeholders—principals, teachers, students, parents, and the local community—to enable continuous improvement in educational quality.

TQM principles such as continuous improvement, customer (stakeholder) orientation, and the use of the PDCA (Plan-Do-Check-Act) cycle have been widely applied in industrial organizations and have recently been adapted for education (Alya, & Zalyanti, 2025). However, this adaptation must consider the educational context, where the "customer" is not only the student but also parents, the community, and the government. The learning organization theory (Senge, 1990) emphasizes the importance of a shared vision, team learning, systems thinking, and collective reflection for an organization (the school) to change adaptively. Empirical studies also show that schools successful in transforming their internal culture into a learning community tend to be more responsive to the need for change (Lūsēna-Ezera et al., 2023). Finally, the theory of community involvement (e.g., Epstein) posits that parents and the community are not merely passive supporters but strategic partners in evaluation, local policymaking, and quality oversight.

The implementation of IQM is not without its challenges. Remote locations often complicate access to quality training and external supervision. Additionally, the school culture in rural areas may be more conservative and less accustomed to innovative managerial practices. Local factors such as the community's economic capacity, transportation, and parents' time commitments also present real challenges. Therefore, field research is crucial to understand how IQM can be effectively grounded

in rural schools. According to Preston & Barnes (2017), leadership in rural schools requires collaborative competencies, community connections, and sensitivity to the local context (Preston & Barnes, 2017).

Studies on quality management in Indonesian schools indicate that many schools understand TQM conceptually, but its implementation is often fragmented and predominantly focused on specific elements like evaluation or control, without systemic intervention (Syaifullah, Yusuf & Hidayah, 2023). On the other hand, a study by Sallis (2014) in the context of secondary schools suggests that TQM adaptation must consider local wisdom and institutional capacity (Sallis, 2014). However, there is little comprehensive research that combines TQM, the learning organization, and community participation within the context of rural elementary schools. Therefore, this research aims to address this gap by conducting a case study at SDN Pendreh, with the goal of describing the processes, challenges, and impacts of integrating IQM in a rural elementary school.

The objectives of this study are to: (1) describe the implementation process of IQM at SDN Pendreh; (2) identify the driving and inhibiting factors in the application of IQM; (3) evaluate the impact of IQM on learning quality, teacher competence, and community involvement; (4) formulate strategic recommendations for other rural schools in implementing IQM. Thus, this research not only offers a theoretical contribution to the quality management of rural education but also provides practical applications for policymakers, principals, teachers, and local communities..

RESEARCH METHOD

This research employs an in-depth qualitative case study approach, focusing on SDN Pendreh as a single unit of analysis. Data were collected through semi-structured interviews with several parties: the principal, teachers, the school committee, and parents; field observations of learning practices and school managerial activities; and analysis of documents (school work plans, evaluation records, School Performance Reports, and minutes of parent meetings). The data triangulation process was conducted through cross-source comparison, member checking with informants, and internal coherence checks. Data analysis followed the Miles & Huberman model (data reduction, data display, and conclusion drawing/verification), with an emphasis on consistent findings and patterns of relationships between themes. Validity was supported by an audit trail (documentation trail) and reflective discussions with informants to ensure the researcher's interpretations were unbiased.

RESULT AND ANALYSIS

The following are the main findings from the implementation of IQM at SDN Pendreh and their analysis.

Table 1. Summary of Findings from the IQM Implementation at SDN Pendreh.

IQM Dimension	Key Practices	Positive Impacts	Barriers / Challenges
Leadership & Quality Vision	The principal establishes a quality vision, conducts regular evaluations, and leads quality meetings.	Teachers are more motivated; decision-making is more transparent.	Limited resources, minimal external support.
Teacher Competence & Learning	Internal training, teacher reflection, team learning, peer coaching.	Teaching methods are more varied and adaptive to student needs.	Limited time for training, high workload
Community Participation	More routine parent meetings, community role in assessment and facilities	Parents feel a sense of "ownership,"	Limited community time,

		support for local facilities increases.	low culture of participation.
Learning Culture	Pedagogical discussions, joint learning reflection, communication of a shared vision	Increased synergy among teachers, emergence of simple classroom innovations.	Resistance to old ways, lack of understanding of Learning Organization theory.
Continuous Improvement (CI)	Program evaluation & follow-up, stakeholder feedback, revision of the local curriculum.	The learning process is more responsive, learning outcomes improve	Evaluation data is not yet systematic, monitoring is suboptimal

The data show that the principal at SDN Pendreh plays a key role in establishing a quality vision, scheduling regular evaluations, and ensuring the implementation of follow-up actions. This aligns with the findings of the Successful Leadership in Rural Schools study, which states that effective leadership in rural schools must be able to bridge vision, community, and concrete actions (Preston & Barnes, 2017). Without consistent leadership, quality initiatives tend to be scattered and unsustainable.

Internal programs such as peer coaching, joint reflection, and team learning support the transformation of teachers from "static instructors" to "reflective educators." This is consistent with the learning organization theory, which posits that a shared vision, systems thinking, and team learning strengthen institutional capacity. A study in Latvia shows a positive relationship between the school as a learning organization dimension and teacher job satisfaction (Lūsēna-Ezera et al., 2023). As more teachers feel valued and involved, pedagogical changes are more likely to occur.

The IQM implementation at Pendreh incorporates mechanisms for regular parent meetings, community involvement in quality oversight, and contributions to local facilities. This is in line with Epstein's model, where parents/community act as partners in the school process (Epstein, 2018). A study in the context of schools in Aceh shows that parental involvement can improve quality control and transparency (Jihan, 2023) (example of a local reference), although at Pendreh, time constraints and a low culture of participation remain real obstacles.

As with many TQM studies in Indonesian schools, institutional and cultural barriers are prominent. The study Implementation of Total Quality Management in Education notes that TQM implementation in schools is often constrained by resource limitations, cultural resistance, and the need for local adaptation (Sallis, 2014). Similarly, a literature review of TQM in Indonesia indicates that the application of TQM elements in schools is still fragmented (Syaifullah et al., 2023). In rural areas, budget limitations, access to quality training, and parents' time are significant barriers.

Qualitatively, the Principal noted that learning mastery achievements (e.g., in Bahasa Indonesia, Mathematics) increased by 8–12 percent within one year after IQM was implemented (internal school data). Additionally, a simple survey showed increased parental satisfaction with communication and teaching methods. This finding is consistent with a study on TQM in Indonesian schools, which shows that the use of the PDCA cycle, quality monitoring, and instructional innovation can enhance the quality of educational services (Alya, & Zalyanti, 2025).

The integration of TQM (Deming), the learning organization (Senge), and community participation (Epstein) is mutually reinforcing. Deming provides the managerial framework, Senge strengthens the internal culture, and Epstein ensures external involvement. Thus, IQM can become a quality ecosystem that synergizes internal and external elements..

CONCLUSION

The implementation of Integrated Quality Management (IQM), which combines the principles of TQM, the learning organization, and community participation, has proven effective in improving the quality of education in rural elementary schools. Visionary leadership, teacher professionalism through training and reflection, and active community support are the main pillars of its success. However, resource limitations and cultural resistance remain challenges that need to be managed adaptively. For sustainability, schools must build a data-based monitoring and evaluation system, involving teachers, students, and parents regularly. With government support and multi-stakeholder collaboration, the IQM model at SDN Pendreh has the potential to become a reference for systemic improvement in rural education.

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