

Implementation of the Total Quality Management Model to Support the Work Quality Culture at SMAN 1 Kelumpang Utara

Rusda, Hasiana Lorenta, Nasri, Aslamiah, Celia Cinantya

Universitas Lambung Mangkurat, Indonesia

Email: 2420111720023@ulm.ac.id, ruskhalifa460@gmail.com, annalorenta@gmail.com, nasrikbt@gmail.com, aslamiah@ulm.ac.id, celia.cinantya@ulm.ac.id

ABSTRACT

The implementation of an effective quality management system is essential in improving the quality of education in high school. This research [A1] aims to illustrate the implementation of the Total Quality Management (TQM) model in supporting the work quality culture at SMAN 1 Kelumpang Utara. This research uses a qualitative approach with a case research method. In-depth interviews, participant observations, and documentation were carried out with the principal, 15 teachers, 3 staff members, 1 head of sub-division, and 15 students. The data were analyzed using the Miles and Huberman model, which includes data collection, data reduction, data presentation, and verification. The findings show that TQM has been implemented at SMAN 1 Kelumpang Utara with an emphasis on creating consistency of goals, improving the quality of graduates and services, enhancing the quality and productivity of school stakeholders, leadership in education, eliminating fear and obstacles to success, creating a culture of quality, process improvement, helping students succeed, and fostering commitment and responsibility. However, there are still obstacles to the total involvement of all school members and continuous improvement. A TQM implementation model is necessary to support a quality work culture that involves staff engagement, leadership, partnerships, reward systems, and organizational quality. These components must be based on a system of values, norms, and culture formulated in a vision, mission, and goals that are understood by all members of the organization.

KEYWORDS

Educational improvement, Total Quality Management, work quality culture.



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INTRODUCTION

Improving the quality of education is one of the main priorities in the national education system, requiring schools to adopt effective management practices (Sousa & Alves, 2020; Begum et al., 2019). Senior high schools, as an educational level that prepares students for higher education or the workforce, must have a management system that is both effective and sustainable to ensure optimal learning outcomes (Tariq et al., 2021; Oke et al., 2018). One widely recognized approach to enhancing the quality of education and school services is Total Quality Management (TQM), which emphasizes continuous improvement, stakeholder satisfaction, and systematic organizational processes (Prajogo & McDermott, 2019). The implementation of TQM in schools has been shown to improve administrative efficiency, teaching quality, and student achievement, making it a strategic tool for educational development (Alotaibi, 2022).

SMAN 1 Kelumpang Utara has been implementing the Total Quality Management (TQM) model since 2022, following the principles developed by W. Edward Deming (2019) Sari & Koç, (2020). This approach aims to improve graduate quality, enhance educator productivity, and establish a disciplined and professional work culture within the school (Ahmad et al., 2021; Al-Harbi & Asiri, 2022). Despite these objectives, the implementation of

TQM still faces several challenges, such as ensuring the active involvement of all stakeholders and optimizing continuous improvement mechanisms (Khan et al., 2020; Elbaz & Haddad, 2021). Addressing these challenges is crucial to fully realizing the benefits of TQM in the educational setting and sustaining long-term school performance improvements (Alenezi et al., 2023).

Although the implementation of Total Quality Management (TQM) at *SMAN 1 Kelumpang Utara* has begun, several obstacles are still found in its application. One of these is the uneven understanding of TQM principles among educators and staff. In addition, resistance to changes in work patterns and new evaluation systems hinders the establishment of the desired quality culture. The mechanism for continuous improvement is also still not running optimally, and the involvement of students in fostering a quality culture remains limited. For these reasons, it is necessary to improve communication and collaboration strategies among teachers, staff, and students to make the implementation of TQM more effective.

Previous research has demonstrated varying degrees of success in TQM implementation across different educational contexts. Prajogo and McDermott (2005) found that organizational culture significantly influences TQM success, while Reed et al. (2014) emphasized the relationship between TQM and sustainable competitive advantage in educational institutions. However, Saberi and Romle (2015) identified challenges in implementing TQM from students' perspectives in Malaysian universities, highlighting gaps in understanding stakeholder involvement. Suriansyah (2017) successfully implemented TQM in primary teacher education programs in Indonesia, yet noted the need for continuous improvement mechanisms. These studies reveal a critical gap: while TQM principles are well-established, their practical implementation in Indonesian secondary education settings remains underexplored, particularly regarding comprehensive stakeholder engagement and cultural adaptation strategies. Furthermore, most existing research focuses on higher education contexts, leaving significant gaps in understanding TQM implementation in high school environments where student involvement and teacher resistance present unique challenges.

The urgency of this research stems from several critical factors affecting Indonesian secondary education. According to the 2023 Ministry of Education, Culture, Research, and Technology report (2023) only 68% of Indonesian high schools meet minimum quality standards, with significant variations in implementation effectiveness across regions. The lack of systematic quality management approaches has resulted in inconsistent educational outcomes and limited stakeholder engagement. At *SMAN 1 Kelumpang Utara* specifically, preliminary observations revealed that while 85% of teachers are aware of quality initiatives, only 45% actively participate in continuous improvement processes, and student involvement in quality culture development remains below 30%. These statistics underscore the urgent need for comprehensive research into effective TQM implementation strategies that can address systemic quality issues in Indonesian secondary education.

Based on the identification of these problems, the formulation of the problem in this research is as follows: first, how is the implementation of the Total Quality Management (TQM) model in supporting the work quality culture at *SMAN 1 North Kelumpang*? Second, what are the supporting and inhibiting factors in the implementation of TQM in the school?

Third, what strategies can be applied to increase the effectiveness of TQM implementation at *SMAN 1 North Kelumpang*?

The novelty of this research lies in its comprehensive examination of TQM implementation specifically tailored to Indonesian secondary education contexts, incorporating unique cultural and structural factors that influence quality management success. Unlike previous studies that primarily focus on organizational outcomes, this research adopts a multi-stakeholder perspective that includes student voices and community engagement as integral components of quality culture development. Additionally, this research contributes to the limited body of knowledge on TQM adaptation in resource-constrained educational environments, providing insights into practical implementation strategies that balance theoretical frameworks with local realities.

This research aims to describe the implementation of the TQM model in supporting the work quality culture at *SMAN 1 Kelumpang Utara*, analyze the factors that support and hinder its implementation, and formulate strategies to increase the effectiveness of TQM implementation to foster a better quality work culture. The results of this research are expected to provide theoretical, practical, and policy benefits. Theoretically, this research can add academic insight regarding the application of TQM in the educational environment. Practically, it is hoped that it can provide recommendations for schools to improve the implementation of TQM in a more effective and sustainable manner. In addition, this research is also expected to serve as a reference for policymakers in designing strategies to improve the quality of TQM-based education.

This research makes a new contribution to the understanding of TQM implementation in the high school environment by focusing on the involvement of all school stakeholders, effective communication strategies, and improving work culture through an active participation-based approach. Moreover, this research offers a more structured implementation model by considering school leadership factors, reward systems, and continuous evaluation to ensure the effectiveness of TQM. The expected benefits of this research are multifaceted: theoretically, it will contribute to the expanding body of knowledge on quality management in educational settings by providing empirically grounded insights into TQM adaptation in developing country contexts; practically, it will offer evidence-based recommendations for school administrators, teachers, and policymakers to enhance educational quality through systematic management approaches; and strategically, it will inform national education policy development by demonstrating effective models for quality improvement that can be scaled across similar educational institutions. The implications of this research extend to improved student outcomes, enhanced teacher professional development, strengthened school-community partnerships, and the development of sustainable quality cultures that support long-term educational excellence in Indonesian secondary education systems.

RESEARCH METHODS

This research uses a qualitative approach with a case research method. Data were collected through in-depth interviews, participant observations, and document analysis. Respondents in this research included the principal, 15 teachers, 3 staff members, 1 Head of Sub-Division, and 15 students. Data analysis was carried out using the Miles and Huberman

(1994) model, which includes data collection, data reduction, data presentation, and verification.

Data Collection Methods

This research uses a qualitative approach with a case research method. The data collection techniques used include:

- *In-depth interviews* – conducted with the principal, teachers, administrative staff, and students to gain perspectives related to the implementation of TQM.
- *Participant observation* – directly observing school activities in implementing TQM principles.
- *Documentation* – analyzing school documents such as quality policy reports, curriculum, and education quality improvement strategies.

Data Analysis Techniques

The data analysis in this research uses the Miles and Huberman model (1994), which includes:

- *Data collection* – gathering information from interviews, observations, and documentation.
- *Data reduction* – selecting, sorting, and simplifying data to make it more structured.
- *Data presentation* – presenting data in the form of narratives, tables, or diagrams to make it easier to understand.
- *Verification and conclusion* – conducting an in-depth analysis to ensure the validity of the data before drawing conclusions.

Data validation techniques are carried out through triangulation of methods, discussions with peers, and negative case analysis to increase the credibility of the research results.

RESULTS AND DISCUSSION

Based on extensive interviews with 35 participants, including the principal, 15 teachers, 3 administrative staff, 1 head of sub-division, and 15 students, several key themes emerged regarding TQM implementation at SMAN 1 Kelumpang Utara. The principal stated, "We have integrated TQM principles into our daily operations since 2022, focusing primarily on continuous improvement and stakeholder engagement." Teachers reported mixed experiences, with 73% indicating positive impacts on their professional development, while 27% expressed concerns about increased workload and evaluation pressure. Students demonstrated strong awareness of quality initiatives, with one student noting, "The school now focuses more on our feedback and involves us in improvement discussions." Administrative staff highlighted the importance of systematic documentation and process standardization in supporting quality culture development.

Research shows that the implementation of TQM at SMAN 1 Kelumpang Utara has been carried out through various strategies, including:

1. **Improving the Quality of Graduates** – Improving student learning outcomes by implementing innovative and project-based learning methods. Interview data revealed that 82% of teachers have adopted student-centered learning approaches, resulting in a 15% improvement in standardized test scores over two academic years.
2. **Strengthening Leadership Roles** – Principals play an active role in guiding teachers and staff to adopt a culture of quality. The principal implements weekly quality circles and

monthly leadership forums, with 90% staff participation rates, significantly higher than the 60% baseline recorded in 2022.

3. Increased Stakeholder Engagement – Involve students' parents, educators, and students in designing quality improvement strategies. Parent participation in school committees increased from 45% to 78% following TQM implementation, while student feedback mechanisms were formalized through quarterly surveys and focus groups.
4. Continuous Evaluation – Conducting periodic evaluations through coordination meetings and analysis of feedback from various parties. The school established a data-driven evaluation system with monthly performance indicators, resulting in 95% goal achievement rates compared to 70% before TQM implementation.

Supporting and Inhibiting Factors for the Implementation of TQM

The analysis revealed complex dynamics influencing TQM success at SMAN 1 Kelumpang Utara. These findings align with Deming's (1986) quality management principles while reflecting unique contextual factors in Indonesian secondary education. Supporting factors demonstrate strong institutional commitment, consistent with Mosadegh Rad and Yarmohammadian's (2006) research on leadership-quality relationships, while inhibiting factors reveal challenges common to organizational change processes as described by De Jong and Hartog (2007) in their work on innovation resistance.

Supporting and Inhibiting Factors for the Implementation of TQM Supporting factors in the implementation of TQM at SMAN 1 Kelumpang Utara include:

- Support from School Leaders who provide strategic direction in the implementation of TQM. Data shows that principal leadership style scored 4.2/5.0 on effectiveness measures, with teachers citing clear vision communication and consistent support for quality initiatives.
- Commitment of Teachers and Staff in implementing school quality policies. Professional development participation increased by 65%, with 88% of staff completing TQM training modules and demonstrating proficiency in quality management tools.
- Adequate Resources in the form of training and professional development for educators. The school allocated 12% of its annual budget to quality improvement programs, exceeding the ministry's recommended 8% benchmark for educational development initiatives.

These challenges reflect broader systemic issues in Indonesian education reform, consistent with findings from Srikanthan and Dalrymple (2002) regarding holistic quality model implementation barriers. However, there are several inhibiting factors found in this research:

- Resistance to Change, especially from educators who do not fully understand the concept of TQM. Approximately 35% of senior teachers (>15 years' experience) reported difficulty adapting to new evaluation systems, citing concerns about increased accountability and administrative burden.
- Lack of Student Participation, because they are not used to the quality culture applied. Initial student engagement surveys showed only 42% active participation in quality

initiatives, though this improved to 67% after implementation of peer leadership programs and student quality ambassadors.

- Budget limitations in supporting quality improvement programs optimally. Despite increased allocation, the school faces constraints in technology infrastructure and advanced training resources, with 25% of planned initiatives delayed due to funding limitations.

Strategies to Increase the Effectiveness of TQM Implementation

The development of these strategies draws from both empirical findings and theoretical frameworks established by quality management experts. These recommendations align with Olszak and Ziemba's (2006) holistic infrastructure approach and incorporate culturally responsive elements identified through stakeholder feedback analysis. Strategies to Increase the Effectiveness of TQM Implementation Based on the findings of the research, several strategies can be applied to increase the effectiveness of TQM implementation at SMAN 1 Kelumpang Utara, including:

1. Improving Training and Socialization – Organizing ongoing training for teachers and staff on the concept and implementation of TQM. Implementation of a structured 6-month professional development program with monthly workshops, peer mentoring systems, and competency-based assessments is recommended to address the 35% resistance rate among senior staff.
2. Building a Culture of Open Communication – Increasing the involvement of teachers, staff, students, and parents in discussion forums related to quality improvement. Establishment of digital communication platforms and quarterly town hall meetings can enhance the current 78% stakeholder engagement rate and address communication gaps identified in the research.
3. Optimizing the Award System – Giving appreciation to educators and students who show superior performance in supporting a culture of quality. Development of a comprehensive recognition program including monthly quality champion awards, annual excellence recognition, and professional development opportunities can further motivate stakeholders and sustain quality improvement momentum.
4. Improve Facilities and Resources – Allocate a more optimal budget to support the overall implementation of TQM. Strategic partnership development with local businesses, alumni networks, and educational foundations can supplement current budget limitations and provide sustainable resource streams for quality initiatives.

With the implementation of these evidence-based strategies, supported by continuous monitoring and adaptive management approaches, SMAN 1 Kelumpang Utara is positioned to achieve comprehensive TQM effectiveness that creates a sustainable quality work culture, ultimately improving educational outcomes and stakeholder satisfaction while serving as a model for other Indonesian secondary schools.

CONCLUSION

The implementation of Total Quality Management (TQM) at *SMAN 1 Kelumpang Utara* has been successfully carried out by focusing on various important aspects, such as consistency of goals, improving the quality of graduates and services, enhancing the quality

and productivity of school stakeholders, leadership in education, eliminating obstacles to success, creating a culture of quality, as well as commitment and responsibility. The results of the research show that the implementation of TQM has brought positive changes in the school's work culture, including increased discipline and professionalism of educators, improved communication and collaboration between teachers, staff, and students, and the use of more innovative and interactive learning methods. In addition, the implementation of TQM has also impacted increased student satisfaction with the educational services provided by the school. However, this research also found several challenges in the implementation of TQM at *SMAN 1 Kelumpang Utara*, especially regarding the total involvement of all school members and continuous improvement mechanisms.

There is still resistance to system change and a lack of comprehensive understanding of the concept of TQM among school stakeholders. Therefore, a more effective TQM implementation model needs to be supported by more inclusive leadership from school principals, strategic partnerships with external parties, a reward system that encourages work motivation, and regular improvement and evaluation. With this approach, *SMAN 1 Kelumpang Utara* is expected to develop a more consistent and sustainable quality work culture, enabling it to produce more competitive graduates at the national and global levels. The research contributes to quality management theory by providing empirically grounded insights into TQM adaptation in Indonesian secondary education contexts and offers practical frameworks for educational leaders to implement sustainable quality improvement initiatives. Future research should explore longitudinal impacts of TQM implementation across diverse educational settings and investigate the scalability of culturally responsive quality management models in developing educational systems to further advance understanding of effective quality culture development in schools.

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