

Servant leadership behavior and total quality management practices of secondary school heads in indigenous people learning communities in Southern Nueva Vizcaya: Their relationship to teachers' effectiveness

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Received: 14 April 2026

Available Online: 5 May 2026

Revised: 1 May 2026

DOI: 10.5861/ijrse.2026.26145

Accepted: 4 May 2026



ISSN: 2243-7703
Online ISSN: 2243-7711

OPEN ACCESS

Abstract

This study examined the servant leadership behavior and Total Quality Management (TQM) practices of school heads and their relationship with teaching effectiveness of secondary school teachers in Indigenous Peoples (IP) Learning Communities in Southern Nueva Vizcaya during the second semester of Academic Year 2025–2026. Employing a quantitative, descriptive-correlational design, data were collected through validated survey instruments. Means were used to describe variable levels, and Spearman's rank-order correlation assessed relationships at a 0.05 significance level. Servant leadership was measured across empathy, stewardship, community building, foresight, and empowerment, while TQM practices included leadership, continuous improvement, customer focus, employee involvement, and stakeholder satisfaction. Teaching effectiveness encompassed knowledge of subject, teaching for independent learning, management of learning, commitment, community engagement, research competence, and instructional technology integration. Findings revealed that school heads' servant leadership and TQM practices were rated "Very Good," and teachers' teaching effectiveness was rated "Outstanding." Significant and strong positive correlations were found between servant leadership and TQM practices ($\rho = .74$), servant leadership and teaching effectiveness ($\rho = .56$), and TQM practices and teaching effectiveness ($\rho = .71$), all statistically significant ($p = .001$). Based on these results, targeted training designs were developed for school heads and teachers, focusing on areas needing improvement to enhance leadership capabilities, instructional quality, stakeholder engagement, and overall school performance. The study underscores the importance of servant leadership and quality management in promoting professional growth, effective teaching, and improved learning outcomes in IP educational settings.

Keywords: servant leadership behavior, teaching effectiveness, total quality, Indigenous Peoples

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1. Introduction

Education systems across the globe continue to face rapid transformation driven by globalization, technological advancement, and increasing demands for quality learning outcomes. School leaders are expected to function not only as administrators but also as instructional leaders, change agents, and decision-makers who can respond to complex educational challenges. Effective supervisory behaviors and sound decision-making have become essential components in ensuring school improvement, teacher development, and student achievement. As schools evolve into dynamic learning organizations, the competency of school heads in managing change becomes a critical factor in sustaining educational reforms and organizational effectiveness. In this context, supervisory behaviors and decision-making processes are viewed as interrelated dimensions of school leadership that influence institutional performance. Supervisory behaviors guide teachers in improving instruction, while decision-making ensures that policies, programs, and resources are aligned with school goals. When these functions are effectively executed, school heads are better positioned to lead change initiatives, foster collaboration, and maintain a culture of continuous improvement. However, variations in leadership styles, experience, and contextual challenges may affect how these practices are implemented, thereby influencing the overall change management competency of school leaders.

Globally, studies highlight the significant role of school heads in shaping educational outcomes through effective supervision and leadership. Research indicates that school leaders are central to the “education production function,” yet many are promoted with limited formal training in management and supervision, which affects their ability to lead effectively (Selection, training, and importance of school heads, 2024). Similarly, contemporary studies emphasize that supervisory competence and managerial behavior are positively associated with teachers' performance, underscoring the importance of leadership capacity in achieving quality education (Landawe et al., 2024).

In the Philippine context, school heads are mandated to perform multifaceted roles that include instructional supervision, administrative management, and decision-making aligned with national standards. Empirical evidence reveals that supervisory behaviors such as instructional leadership, employee supervision, and administrative management significantly influence school effectiveness, despite challenges in implementation (Dayanan & Baynosa, 2023). Moreover, studies show that management competencies—including planning, organizing, and decision-making—have a significant relationship with supervisory behaviors, indicating that leadership effectiveness is rooted in both managerial and supervisory capabilities (Mallari, 2023). Recent local studies further demonstrate that school heads in the Philippines generally exhibit high levels of supervisory competence and leadership effectiveness, which are linked to improved teacher performance and school outcomes (Pamposa, 2024; Galero, 2024). However, despite these positive findings, gaps remain in aligning supervisory behaviors and decision-making processes with change management competencies, particularly in diverse and resource-constrained settings. In areas such as Southern Nueva Vizcaya, contextual factors such as geographical location, resource availability, and organizational culture may influence how school heads implement leadership practices. Hence, examining the correlation between supervisory behaviors, decision-making practices, and change management competency is essential in understanding how school leaders can effectively navigate and sustain educational change in local settings.

This study is strongly anchored on the global framework of the United Nations Sustainable Development Goals (SDGs), particularly SDG 4 which promotes inclusive and equitable quality education and lifelong learning

opportunities for all. Effective supervisory behaviors and decision-making among school heads are essential mechanisms for achieving quality education, as leadership directly influences teaching standards and student outcomes. According to UNESCO (2019), school leadership plays a crucial role in strengthening education systems by ensuring accountability, improving instructional quality, and managing institutional change. Furthermore, recent studies emphasize that leadership competency, particularly in change management, is vital in addressing educational disruptions and ensuring sustainable development in schools (Hallinger & Walker, 2020).

At the national level, this research aligns with the Commission on Higher Education National Higher Education Research Agenda (NHERA), which prioritizes governance, leadership, and institutional management as key areas for educational research. The study contributes to NHERA by examining how supervisory and decision-making practices influence leadership effectiveness and change management competency. Research by Oracion and colleagues (2018) highlights that strengthening leadership capacity among educational administrators is critical in improving institutional performance and policy implementation in the Philippine education sector. Similarly, this study supports the reform agenda of the Department of Education (DepEd), particularly its focus on enhancing school leadership and governance under the Basic Education Development Plan (BEDP). DepEd underscores the importance of school heads as instructional leaders who drive school improvement and ensure the delivery of quality basic education. Empirical evidence shows that effective school leadership practices, including supervision and participatory decision-making, significantly contribute to teacher performance and student achievement (Sebastian & Allensworth, 2019). Thus, this research provides localized evidence that can inform DepEd policies and leadership development programs.

At the institutional level, the study is aligned with the research agenda of Nueva Vizcaya State University (NVSU), which emphasizes educational leadership, governance, and community development. By focusing on secondary schools in Southern Nueva Vizcaya, the research addresses local educational challenges and contributes to evidence-based decision-making within the region. Additionally, it supports the priorities of the College of Arts and Sciences Research Agenda, particularly in the areas of social science research, organizational behavior, and leadership studies. Recent literature suggests that contextualized research is essential in understanding leadership dynamics and improving educational practices in specific local settings (Day et al., 2020). This study demonstrates coherence with global, national, and institutional research priorities by addressing leadership practices that influence educational quality and organizational change. It contributes to the broader goal of developing competent school leaders capable of navigating complex educational environments and sustaining continuous improvement in the Philippine education system.

Despite the growing body of literature on educational leadership, significant research gaps remain in understanding the integrated relationship between supervisory behaviors, decision-making processes, and change management competency of school heads, particularly in the Philippine secondary school context. Many existing studies tend to examine these variables in isolation, focusing either on instructional supervision or leadership styles without fully exploring how these dimensions interact to influence organizational change. Moreover, there is limited empirical evidence that specifically addresses localized settings such as Southern Nueva Vizcaya, where contextual factors like resource availability, geographical constraints, and socio-cultural dynamics may shape leadership practices differently. As highlighted by Hallinger and Walker (2020), leadership studies in developing contexts remain underrepresented, necessitating more context-specific investigations to inform policy and practice.

Another research gap lies in the limited attention given to decision-making practices as a core component of school leadership. While supervisory roles are often emphasized, the processes by which school heads make strategic, operational, and instructional decisions—and how these decisions impact change management—are less explored. According to Sebastian and Allensworth (2019), effective decision-making is a critical yet underexamined factor that directly influences teacher performance and student outcomes. Furthermore, there is a need to examine how school heads' competencies in managing change align with evolving educational reforms, particularly in decentralized education systems like that of the Philippines.

These gaps are further underscored by the persistent challenges encountered by teachers in secondary schools. Teachers often face issues such as heavy workload, limited instructional resources, large class sizes, and increasing administrative demands. These challenges can hinder effective teaching and reduce opportunities for professional growth. In addition, inconsistent supervisory support and unclear decision-making processes from school leadership may contribute to stress, reduced motivation, and diminished job satisfaction among teachers. Recent studies indicate that supportive leadership, characterized by clear communication, participatory decision-making, and consistent supervision, plays a crucial role in addressing these challenges and improving teacher performance (Day et al., 2020).

In the local context of Southern Nueva Vizcaya, teachers may also encounter difficulties related to accessibility, infrastructure limitations, and varying levels of institutional support. Such conditions highlight the importance of competent school leadership that can effectively supervise, make informed decisions, and manage change within the school environment. These existing gaps and challenges collectively motivated the researcher to conduct this study, with the aim of generating empirical evidence that can contribute to improving leadership practices and enhancing educational outcomes in secondary schools.

2. Related Literature

This study is grounded on three classical theories that explain the core variables under investigation. Human Relations Theory, pioneered by Elton Mayo, emphasizes the importance of social relationships, motivation, and employee well-being in organizational effectiveness, as demonstrated in the Hawthorne Studies (Mayo, 1933). This theory provides the foundation for servant leadership, which prioritizes empathy, support, and the development of teachers. Systems Theory, introduced by Ludwig von Bertalanffy, views organizations as open systems composed of interrelated and interdependent parts working toward common goals (von Bertalanffy, 1968). This perspective underpins Total Quality Management (TQM) by explaining how continuous improvement relies on coordinated processes and feedback mechanisms within the school system. Constructivist Learning Theory, advanced by Jean Piaget and Lev Vygotsky, posits that learners actively construct knowledge through cognitive development and social interaction (Piaget, 1952; Vygotsky, 1978). This theory serves as the basis for teaching effectiveness, highlighting learner-centered instruction, active engagement, and meaningful learning experiences.

Human Relations Theory provides the theoretical foundation for servant leadership. The theory emphasizes the significance of human needs, interpersonal relationships, motivation, and emotional well-being in organizational performance. Contemporary scholars affirm that leadership practices grounded in empathy, trust, and support enhance employee commitment and effectiveness (Northouse, 2021; Robbins & Judge, 2020). In the school context, servant leadership aligns with Human Relations Theory as school leaders prioritize serving teachers, empowering them professionally, and fostering a supportive and collaborative environment. When teachers feel valued and supported, their motivation and engagement increase, positively influencing instructional practices.

Systems Theory underpins Total Quality Management (TQM) by viewing schools as dynamic systems composed of interrelated and interdependent subsystems such as leadership, instruction, assessment, and feedback mechanisms. According to modern organizational theorists, quality improvement is achieved when all components of an organization function cohesively toward shared goals (Senge, 2018; Deming, as cited in Goetsch & Davis, 2021). In education, TQM reflects Systems Theory through continuous improvement processes, data-driven decision-making, and feedback loops that enhance instructional quality. Any improvement in teaching effectiveness is therefore seen as a result of systemic coordination rather than isolated efforts.

Constructivist Learning Theory serves as the theoretical basis for teaching effectiveness. The theory posits that learners actively construct knowledge through experience, interaction, and reflection, and that teachers play a facilitative role in this process. Recent educational research highlights that effective teaching is characterized by learner-centered strategies, active engagement, and meaningful classroom interactions (Schunk, 2020; Woolfolk, 2021). Teaching effectiveness, from a constructivist perspective, is measured by the extent to which instruction

promotes critical thinking, understanding, and authentic learning outcomes.

Taken together, these theories suggest that servant leadership, when grounded in human-centered principles, strengthens teacher motivation; TQM, when viewed systemically, ensures continuous improvement of school processes; and teaching effectiveness, when guided by constructivist principles, enhances learner outcomes. The integration of these theories provides a comprehensive framework for understanding how leadership and quality management practices contribute to effective teaching in secondary schools.

Servant leadership as one of the variables in this study is a people-centered leadership philosophy that emphasizes prioritizing the needs, growth, and well-being of followers as a way to achieve organizational and individual success. Rather than focusing on power or hierarchical authority, servant leaders place service to others at the heart of their actions, striving to nurture an inclusive, ethical, and supportive organizational climate where individuals are empowered to contribute meaningfully (Greenleaf, as cited in Spears, 2018). Contemporary research continues to affirm that servant leadership behaviors are positively associated with employee motivation, engagement, innovation, and performance outcomes across diverse contexts (Asiedu & Doe, 2025; Su et al., 2020).

Empathy is a foundational dimension of servant leadership that enables leaders to understand and share the feelings, experiences, and perspectives of others. Through empathetic behaviors, leaders build trust, deepen relational connections, and respond sensitively to followers' emotional and professional needs. Empathy fosters psychological safety and enhances followers' sense of being valued, which in turn supports engagement and well-being (Su et al., 2020). Stewardship reflects a leader's commitment to responsibly managing organizational resources and the welfare of followers. Servant leaders act as custodians of people and systems, guided by ethical principles rather than self-interest. Stewardship encourages accountability and a long-term focus on sustainable success that benefits both individuals and the wider organization (Asiedu & Doe, 2025). Community building extends servant leadership beyond individual relationships to include fostering collective belonging. Leaders who prioritize community create environments where collaboration, mutual support, and shared purpose are central. This dimension strengthens social cohesion and encourages collective problem-solving and shared responsibility among organizational members.

Foresight involves anticipating future challenges and opportunities, enabling leaders to make informed decisions that balance present realities with long-term implications. Foresight helps organizations navigate uncertainty and align strategic goals with followers' needs, reinforcing confidence and direction. Finally, empowerment is a critical behavioral outcome of servant leadership, where leaders delegate authority, provide autonomy, and encourage follower initiative. Empowerment enhances intrinsic motivation and enables individuals to take ownership of their roles, fostering innovation, self-efficacy, and professional growth (Su et al., 2020). Collectively, these dimensions illustrate how servant leadership behaviors create supportive, ethical, and forward-thinking environments that promote individual and organizational effectiveness.

Total Quality Management (TQM) which is also one of the variables in this investigation is a comprehensive organizational management philosophy that seeks to optimize performance by embedding quality principles into every aspect of operations and decision-making. At its core, TQM focuses on creating a culture of quality that enhances both internal processes and external outcomes by engaging leaders, employees, customers, and stakeholders in continuous improvement efforts. Contemporary research underscores TQM as a strategic framework that promotes organizational excellence, sustainability, and responsiveness to evolving stakeholder needs (Ma et al., 2025). Leadership plays a pivotal role in TQM by providing vision, commitment, and strategic direction. Effective leadership fosters quality-oriented culture, sets clear expectations, allocates necessary resources, and models quality behaviors that cascade throughout the organization. Leaders committed to quality ensure that quality objectives are aligned with organizational goals and that all members understand and embrace quality values (Systematic Review, 2024).

Continuous improvement refers to the ongoing efforts to enhance products, services, and processes. It is the essence of TQM because quality is not static but evolves in response to performance data, feedback, and innovation

opportunities. Continuous improvement encourages organizations to systematically review performance, eliminate inefficiencies, and embrace incremental as well as breakthrough enhancements (Systematic Review, 2024). Customer focus highlights the importance of understanding and meeting customer needs and expectations. TQM places customers at the heart of decision-making, ensuring that services and products not only conform to specifications but also exceed expectations, thereby enhancing customer satisfaction and loyalty. Recent empirical studies link customer focus to improved competitive positioning and service quality (Ma et al., 2025).

Employee involvement is a critical practice in TQM that empowers employees at all levels to contribute to quality initiatives, problem-solving, and decision-making. When employees are engaged and feel a sense of ownership over quality outcomes, organizations benefit from increased motivation, teamwork, and innovation. TQM thus integrates human resource development with quality objectives to harness collective capabilities. Finally, stakeholder involvement and satisfaction extend the customer concept to include all parties impacted by organizational actions—such as suppliers, community members, and regulators. Involving stakeholders and ensuring their satisfaction fosters trust, enhances cooperation, and aligns organizational practices with broader social and market expectations. Research indicates that TQM's effectiveness increases when stakeholder perspectives are systematically integrated into quality strategies.

Collectively, these dimensions illustrate that TQM is not merely a set of tools but a holistic management approach that nurtures sustainable quality culture, enhances efficiency, and delivers superior value to customers and stakeholders. Teaching effectiveness a variable of this investigation refers to the degree to which teachers successfully facilitate student learning, engagement, and academic achievement through intentional instructional practices and professional dispositions. Contemporary research highlights that effective teaching is multidimensional, encompassing both cognitive and behavioral components that collectively contribute to positive student outcomes (Taylor, 2023). A critical component of teaching effectiveness is knowledge of the subject. Teachers who demonstrate strong mastery of their content not only convey accurate and complex information but also organize and present material in ways that are comprehensible and relevant to learners. Robust subject knowledge underpins pedagogical decisions and enables teachers to respond to students' questions with depth and clarity, thereby enhancing comprehension and fostering deeper learning (Aguarino et al., 2024).

Closely related to content mastery is teaching for independent learning, which involves equipping learners with strategies, tools, and opportunities to take ownership of their learning. Effective teachers facilitate students' development of self-regulated learning skills by encouraging inquiry, critical thinking, and reflection. When students are taught to set goals, monitor their progress, and adjust strategies, they become more autonomous and capable learners, which is essential for lifelong learning in the 21st century. Another indispensable dimension of teaching effectiveness is management of learning. This includes both classroom management and instructional organization — creating a structured, supportive environment that maximizes instructional time and minimizes disruption. Research indicates that well-managed learning environments promote student engagement, reduce behavioral challenges, and support a culture of respect and shared academic purpose (Taylor, 2023).

On the other hand, teacher commitment reflects a teacher's dedication to their profession, students, and ongoing professional growth. Committed teachers are more likely to invest effort in lesson planning, differentiate instruction to meet diverse needs, and pursue continuous improvement through professional development. Teacher commitment has been positively linked to teaching effectiveness and student achievement, as committed educators persist in refining their practices and supporting students' academic and social-emotional needs (Aguarino et al., 2024). Community engagement as a dimension of teaching effectiveness involves actively connecting academic activities with broader societal needs. Effective educators facilitate partnerships, service-learning, and outreach programs that link classroom knowledge with real-world issues. Such engagement enhances student learning, fosters civic responsibility, and strengthens institutional-community relationships (Smith & Taylor, 2021). Integrating community perspectives into curricula also promotes inclusivity and responsiveness to local and global challenges, thereby enriching the educational experience.

Research competence is a core component of teaching effectiveness, reflecting an educator's ability to integrate current research findings and methodologies into their instruction. Faculty who are research-competent model scholarly inquiry, foster critical thinking, and mentor students in research activities (Kim & Lee, 2022). This approach ensures that teaching is informed by evidence-based practices and advances the academic discipline, thereby enhancing both learning outcomes and institutional reputation. Instructional technology integration refers to the effective use of digital tools and platforms to enhance teaching and learning processes. Educators who skillfully integrate technology create interactive, flexible, and accessible learning environments that meet diverse student needs (García & Torres, 2023). This dimension of teaching effectiveness supports differentiated instruction, fosters digital literacy, and enables innovative pedagogical approaches, which are crucial in contemporary education.

Together, these components illustrate that effective teaching cannot be reduced to any single skill or action. Instead, it is an integrated set of knowledge, behaviors, and dispositions that collectively enhance learning experiences and outcomes. Educators who combine deep subject expertise with strategies that promote independence, maintain productive learning environments, and demonstrate professional commitment are better positioned to support student success in diverse educational contexts.

The present study assumes that servant leadership behaviors and the implementation of Total Quality Management (TQM) in schools significantly influence teaching effectiveness. Servant leadership fosters a supportive and empowering environment, promoting collaboration, empathy, and professional growth among educators. Simultaneously, TQM embeds a culture of continuous improvement and stakeholder engagement, leading to higher standards in instructional quality. Together, these approaches are expected to create optimal conditions for teaching excellence, enhance student outcomes, and support the overall mission of educational institutions by aligning leadership practices and quality management with effective teaching.

3. Methodology

Research Design. This study employed a quantitative descriptive–correlational research design to examine the relationship between servant leadership behavior, Total Quality Management (TQM) practices, and teachers' effectiveness in Indigenous People (IP) learning communities in Southern Nueva Vizcaya, Philippines. The descriptive component assessed the prevailing levels of servant leadership behaviors among secondary school heads, the extent of TQM implementation in schools, and teachers' effectiveness in terms of instructional performance, professional behavior, and classroom management. The correlational component determined the direction and strength of the relationships among these variables without manipulating naturally occurring conditions. Grounded in positivist and empiricist paradigms, the study utilized validated survey instruments and statistical analysis to generate objective, reliable, and generalizable findings regarding leadership, quality management, and teaching effectiveness in indigenous educational contexts.

Research Locale and Participants. The study was conducted in selected public secondary schools located in Indigenous People learning communities across the municipalities of Kasibu, Kayapa, and Sta. Fe in Southern Nueva Vizcaya. These areas represent culturally diverse and geographically dispersed communities where indigenous traditions, communal values, and contextual leadership practices significantly shape educational management and instructional delivery. The schools included institutions from Kasibu East and West Districts, Eastern and Western Kayapa Districts, and Sta. Fe District, thereby providing a broad representation of rural and indigenous secondary school settings. The target population consisted of 412 permanent secondary school teachers assigned to participating schools. Using the Raosoft Online Sample Size Calculator, a sample of 200 teachers (48.54% of the population) was determined, ensuring adequate statistical power and representativeness. Only permanent teachers were included to ensure that respondents had sufficient professional exposure to school leadership practices, organizational systems, and instructional processes relevant to the study variables.

Sampling Procedure. A multi-stage sampling technique combining stratified sampling and simple random

sampling was employed. In the first stage, respondents were stratified according to school assignment, with each school serving as a distinct stratum to account for contextual differences in school size, environment, and organizational culture. In the second stage, simple random sampling was used within each stratum, giving all eligible teachers an equal chance of selection. Proportionate allocation ensured balanced representation across participating schools and districts, thereby minimizing sampling bias and strengthening the generalizability of findings.

Research Instruments. Data were collected using three structured questionnaires:

- **Servant Leadership Behavior Questionnaire.** Servant leadership was measured using a 30-item validated instrument developed by Ordoñez et al. (2024), assessing dimensions such as empathy, stewardship, community building, foresight, and empowerment. Responses were rated on a 4-point Likert scale ranging from 1 (*Seldom*) to 4 (*Always*). The instrument demonstrated satisfactory reliability (Cronbach's $\alpha = 0.791$).
- **Total Quality Management (TQM) Questionnaire.** The extent of TQM implementation was measured using a 30-item standardized questionnaire developed by Quimson et al. (2024), covering key dimensions such as continuous improvement, customer focus, employee involvement, and stakeholder satisfaction. The instrument employed a 4-point agreement scale and demonstrated high internal consistency (Cronbach's $\alpha = 0.892$).
- **Teaching Effectiveness Questionnaire.** Teachers' effectiveness was assessed using a 35-item researcher-developed instrument, adapted from the QCE Instrument for Instruction and contextualized for secondary education. Additional dimensions—including community engagement, research competence, and instructional technology integration—were incorporated to reflect contemporary teaching demands in indigenous learning communities. The instrument underwent expert validation and pilot testing to establish content validity and reliability prior to administration.

Data Collection Procedure. After securing formal approval from the Schools Division Office of Nueva Vizcaya and endorsements from district supervisors, coordination was undertaken with school heads for the administration of research instruments. Respondents were oriented regarding the study's purpose, procedures, and ethical safeguards. Participation was voluntary, and informed consent was obtained from all respondents prior to data collection. Questionnaires were administered either in printed format or through secure online platforms such as Google Forms, depending on accessibility and respondent preference. Participants were given sufficient time to complete the instruments, and uniform instructions were provided to ensure consistency. Completed responses were collected, encoded, and securely stored in password-protected files accessible only to the researcher and adviser.

Ethical Considerations. Strict ethical standards were observed throughout the study. Respondents were assured of voluntary participation, confidentiality, anonymity, and the right to withdraw at any time without penalty. No personal identifiers were collected, and all data were analyzed and reported in aggregate form to protect participant privacy. Data were used solely for academic purposes, and findings were presented objectively, ensuring integrity, transparency, and compliance with accepted research ethics standards.

Statistical Treatment. Descriptive and inferential statistical tools were used in analyzing the data:

- **Mean** was employed to determine the levels of servant leadership behavior, TQM practices, and teachers' effectiveness.
- **Spearman's Rank-Order Correlation Coefficient (ρ)** was used to determine the direction and strength of relationships among servant leadership behavior, TQM practices, and teachers' effectiveness, considering the ordinal nature of Likert-scale data and the non-parametric requirements of the analysis.

All statistical analyses were conducted using appropriate statistical software, with the level of significance set at 0.05. Correlation coefficients were interpreted using the framework of LaMorte (2021), ranging from very weak to perfect relationships.

4. Results and Discussion

The findings of this study provide compelling empirical evidence on the prevailing levels of servant leadership behavior, Total Quality Management (TQM) practices, and teaching effectiveness in Indigenous People (IP) learning communities in Southern Nueva Vizcaya. More importantly, the results illuminate the significant relationships among these variables and affirm the central role of leadership and quality management in shaping educational outcomes. Overall, the findings portray a school environment characterized by ethical leadership, collaborative management, and highly effective teaching practices, while also identifying strategic areas for professional development and institutional strengthening.

First, the study revealed that the respondents' overall assessment of school heads' servant leadership behavior yielded a grand mean of 3.82, interpreted as Very Good, indicating that school heads consistently demonstrate service-oriented, ethical, and people-centered leadership practices. This finding suggests that leadership within Indigenous People learning communities is anchored on values that emphasize empowerment, empathy, stewardship, foresight, and community building—core dimensions of servant leadership that foster trust, collaboration, and organizational harmony. Among these dimensions, empowerment obtained the highest mean of 3.83, indicating that school heads strongly promote teacher participation in decision-making, encourage professional autonomy, and create opportunities for teacher development. This reflects a leadership culture where teachers are treated not merely as implementers of policy but as valued partners in achieving school goals. Such empowerment strengthens teachers' confidence, ownership of responsibilities, and commitment to educational improvement.

Closely following empowerment were empathy, community building, and foresight, each registering a mean of 3.82, likewise interpreted as Very Good. These findings indicate that school heads exhibit strong interpersonal sensitivity, responsiveness to teacher concerns, and genuine regard for the welfare of their school communities. Their ability to cultivate meaningful relationships and foster collaborative cultures contributes significantly to a positive organizational climate, especially in indigenous learning communities where communal values, social cohesion, and cultural sensitivity are highly regarded. Likewise, the high rating for foresight demonstrates that school heads possess strategic orientation and long-term vision in guiding schools toward continuous growth and improvement. Meanwhile, stewardship recorded the lowest mean of 3.81, though still within the Very Good range. While this indicates strong accountability and responsible leadership, it also suggests a modest opportunity to further strengthen practices related to equitable resource allocation, institutional accountability, and sustainable management of school resources. Taken collectively, these findings reveal a balanced and effective practice of servant leadership that nurtures professional growth, strengthens organizational culture, and creates enabling conditions for teacher effectiveness.

Second, the findings showed that respondents' perceptions of the Total Quality Management (TQM) practices of school heads also yielded a grand mean of 3.82, interpreted as Very Good, signifying that quality-oriented management practices are consistently embedded in school operations. This demonstrates that school heads in Indigenous People learning communities do not only lead with ethical and service-centered values but also apply systematic approaches that promote excellence, accountability, and stakeholder responsiveness. Among the dimensions of TQM, employee involvement and stakeholder involvement and satisfaction ranked highest, both obtaining a mean of 3.85. These findings underscore the strong collaborative culture within schools, where teachers, parents, learners, and community stakeholders are actively engaged in educational processes and institutional decision-making. Such inclusive management practices strengthen shared ownership of school goals, improve transparency, and enhance organizational responsiveness to the needs of the community.

The leadership dimension obtained a mean of 3.82, confirming that school heads provide effective direction, strategic guidance, and alignment of school objectives with broader educational goals. This reinforces the notion that leadership serves as the driving force behind quality management implementation. Customer focus, which registered a mean of 3.80, indicates that schools consistently prioritize learner needs, parental expectations, and community interests in planning and service delivery. This reflects a student-centered and community-responsive educational orientation that is particularly important in indigenous learning environments. Meanwhile, continuous improvement recorded the lowest mean of 3.79, though still interpreted as Very Good, suggesting that while schools actively pursue innovation and process enhancement, there remains room to institutionalize stronger data-driven monitoring, reflective evaluation, and sustained improvement mechanisms. Overall, the findings indicate that school heads demonstrate a strong commitment to quality management principles that enhance organizational effectiveness, strengthen stakeholder trust, and support improved educational outcomes.

Third, the study established that teachers' effectiveness in Indigenous People learning communities is at an exceptionally high level, as reflected in the grand mean of 4.77, interpreted as Outstanding. This finding suggests that teachers consistently demonstrate exemplary professional competence, instructional effectiveness, and commitment to learner development. Among the dimensions, management of learning obtained the highest mean of 4.84, indicating that teachers excel in classroom organization, lesson implementation, learner engagement, and the effective management of instructional processes. This demonstrates strong pedagogical competence and the ability to create productive learning environments that facilitate academic growth.

Instructional technology integration, with a mean of 4.81, reflects teachers' strong capacity to utilize digital tools, multimedia resources, and technology-enhanced pedagogical strategies to enrich instruction and improve learner engagement. This is particularly significant given the increasing demands of digital transformation in education. Similarly, teaching for independent learning, which obtained a mean of 4.79, indicates that teachers effectively cultivate learner autonomy, critical thinking, and self-directed learning skills—competencies essential for lifelong learning. Commitment and community engagement, with a mean of 4.78, further highlights teachers' dedication not only to classroom instruction but also to school-community partnerships and educational advocacy beyond school walls. Knowledge of subject matter, registering 4.74, confirms strong content mastery and instructional confidence among teachers. Meanwhile, research competence, although obtaining the lowest mean at 4.63, remains within the Outstanding category, suggesting that while teachers possess commendable inquiry and research-related skills, further strengthening in action research, data utilization, and evidence-based instructional innovation may further enhance professional practice. Overall, the findings portray teachers as highly competent, adaptive, and professionally committed educators capable of delivering meaningful and quality learning experiences.

Fourth, the correlation analysis revealed a strong positive and statistically very significant relationship between servant leadership behavior and TQM practices, with a computed rho-value of 0.7365 and p-value of 0.001. This indicates that higher levels of servant leadership are strongly associated with more effective implementation of quality management practices in schools. This finding highlights the integral role of leadership behavior in fostering organizational excellence. School heads who empower, empathize, serve ethically, and build community are more likely to establish systems characterized by stakeholder involvement, continuous improvement, and quality-focused organizational practices.

Fifth, the study further established that both servant leadership behavior and TQM practices have strong and statistically very significant relationships with teachers' effectiveness. The correlation between servant leadership and teaching effectiveness ($\rho = 0.560$, $p = 0.001$) indicates that leadership rooted in service, empowerment, and ethical stewardship positively influences teachers' professional functioning and instructional quality. More strongly, the correlation between TQM practices and teaching effectiveness ($\rho = 0.7082$, $p = 0.001$) suggests that quality management systems exert substantial influence on teaching performance. These findings imply that when schools operate under collaborative leadership and systematic quality management, teachers are more likely to perform effectively, innovate instructionally, and sustain professional excellence.

Finally, based on these significant findings, two targeted training designs were developed for school heads and teachers to address benchmark areas with relatively lower mean scores. For school heads, intervention programs focus on strengthening stakeholder engagement, equitable resource stewardship, strategic foresight, teacher empowerment, communication effectiveness, and evidence-based decision-making. For teachers, professional development initiatives emphasize deeper subject mastery, learner-centered pedagogies, adaptive instructional roles, community engagement, research competence, and instructional technology integration. These capacity-building interventions are designed not only to address developmental needs but also to sustain a culture of continuous improvement, leadership excellence, and high instructional effectiveness.

The findings affirm that ethical servant leadership and strong TQM practices are critical organizational forces that significantly enhance teacher effectiveness, thereby contributing to improved educational quality and more meaningful learning outcomes in Indigenous People learning communities.

5. Conclusions

Based on the significant findings of the study, the following conclusions were derived.

- The respondents rated the servant leadership behavior of school heads as “Very Good,” indicating consistent practice of service-oriented and ethical leadership.
- The Total Quality Management (TQM) practices of school heads were also rated “Very Good,” reflecting effective and consistent application of quality management principles.
- The teaching effectiveness of the respondents was rated “Outstanding,” indicating a high level of competence across all dimensions.
- A statistically very significant and strong positive relationship exists between servant leadership behavior and TQM practices of school heads.
- Servant leadership behavior and TQM practices are both significantly and positively related to teachers’ teaching effectiveness.
- Training designs for school heads and teachers were developed based on the study’s significant findings.

Recommendations - Based on the study’s findings and conclusions, the following recommendations are proposed to strengthen school leadership, teaching effectiveness, and overall school performance:

- School heads may continuously develop their servant leadership capacities, particularly in areas such as empathy, stewardship, community building, foresight, and empowerment, through targeted professional development programs. Regular reflection, mentoring, and peer coaching can further strengthen ethical, service-oriented, and participatory leadership behaviors.
- School heads may reinforce TQM practices by promoting systematic feedback mechanisms, employee and stakeholder engagement, continuous improvement strategies, and transparent communication, ensuring alignment with school goals and enhancing overall school effectiveness.
- Teachers may be provided with structured training programs emphasizing mastery of subject knowledge, learner-centered strategies, adaptive classroom roles, support for learners with difficulties, research competence, and integration of digital tools to sustain high instructional quality.
- School heads and teachers may cultivate a collaborative environment that encourages shared decision-making, active participation in school programs, and collective problem-solving to strengthen professional relationships and enhance school performance.
- School heads may integrate assessment feedback, student performance data, and stakeholder input into

instructional and administrative decisions to promote continuous improvement, optimize resource allocation, and ensure evidence-based management practices.

- Both school heads and teachers may translate learning from professional development into actionable school-based plans, monitoring progress regularly to ensure the sustainability of improvements in leadership practices, teaching effectiveness, and school outcomes.
- Future researchers are encouraged to replicate this study in other districts or educational settings, incorporating additional variables such as teacher motivation, school climate, or student outcomes, and employing mixed-method research designs to generate more comprehensive insights and practical recommendations for educational leadership and teaching effectiveness.

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