EDUCATIONAL POLICY

TOTAL QUALITY MANAGEMENT AS A TOOL FOR SCHOOL IMPROVEMENT IN SECONDARY EDUCATION

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Abstract

The increasing emphasis on educational quality and accountability has intensified the need for systematic approaches to school improvement in secondary education. In this context, Total Quality Management (TQM) has emerged as a comprehensive organizational framework that promotes continuous improvement, stakeholder focus, evidence-informed decision making, and participatory management practices within educational institutions. Through bibliographic review, this article aims to investigate how TQM is utilized as a tool for school improvement in secondary education and to synthesize key findings from contemporary literature regarding its implementation, benefits, and challenges. The findings indicate that the implementation of TQM in secondary education is associated with positive organizational and educational outcomes, particularly when supported by participatory and distributed leadership. However, the literature also highlights important barriers, including limited training, lack of resources, administrative discontinuity, bureaucratic pressures, and resistance to change, which often hinder sustainable implementation. Overall, the review concludes that TQM can function as an effective tool for school improvement in secondary education when applied as an integrated organizational strategy rather than as a superficial administrative reform.

***Keywords**: Total quality management; secondary education; improvement; school leadership.*

INTRODUCTION

Quality in education, and in particular at the secondary level, is one of the main axes of modern educational policy and administration, as schools are called upon to respond to growing social, pedagogical and organizational challenges. In an environment where school effectiveness is increasingly linked to the need for accountability, evaluation and sustainable development, the school unit is no longer seen as a static organization, but as a dynamic system that must learn, evolve and improve continuously. In this context, school improvement emerges as a key concept, which concerns a planned, systematic and continuous process of change, aiming not only to enhance learning outcomes but also to develop the school's organizational capacity to adapt to new conditions and support change in a sustainable way (Ozdogru et al. 2025).

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The purpose of the article is to investigate how TQM is utilized as a school improvement tool in secondary education and what are the main findings of the literature regarding its implementation, benefits and obstacles. Specifically, the research questions are the following:

- Which TQM principles/models are applied in secondary education?
- What results are recorded at the level of school improvement?

Finally, the focus on TQM as a tool for school improvement becomes particularly timely, because it responds to the need to develop a culture of quality that is not based only on external audits, but is integrated into the functioning of the school as an organization. This approach can contribute to the creation of school units that operate with organizational cohesion, strong leadership, a positive climate and structured improvement, strengthening both the educational process and the sustainability of reforms in the field of secondary education.

THE CONCEPT OF SCHOOL IMPROVEMENT

The term school improvement refers to a planned, systematic and ongoing process of change, which aims, on the one hand, to improve learning outcomes and, on the other hand, to strengthen the school's capacity to manage and support changes at the organizational level. School improvement is not synonymous with isolated reforms or piecemeal innovations, but constitutes an organizational course of development, during which the school develops mechanisms for self-evaluation, feedback, professional learning and collective action, in order to respond more effectively to the needs of students and its social environment. In a relevant European context, "effective school improvement" is defined as planned educational change that enhances both learning outcomes and the school's organizational capacity to adapt to new conditions, making it clear that improvement also includes the dimension of managerial competence beyond performance (Reezigt, 2001).

Scheerens (2015) notes that school improvement is related with the concept of educational effectiveness, but it differs from it in that it focuses not only on what works but also on how a school can change and create conditions that will allow for better results over time. This distinction is crucial: a school can be "effective" at a given time (e.g. good performance), without being "improvable" (i.e. capable of adapting and evolving). Therefore, school improvement is now considered a comprehensive model of organizational change that incorporates both the quality of teaching and the way of administration, the operation of processes, the culture of cooperation and the school climate.

Based on the current research tradition, school improvement can be analyzed in multiple dimensions, which operate interconnectedly. The first and central dimension is the improvement of teaching and learning (instructional improvement), that is, the enhancement of the quality of teaching, pedagogical strategies, learning assessment and differentiation, so that the school responds effectively to the needs of different students. This dimension is considered crucial because school improvement is directly linked to the "instructional core" (the core teaching-student-content), that is, to the point where educational quality is essentially produced. Modern school improvement theory emphasizes that successful change

strategies are not external impositions, but result from internal diagnosis and targeted development of teaching practices (Hopkins and Baumber, 2019).

The second dimension is organizational development and school culture, as school improvement requires collective commitment, professional collaboration and shared values. Organizational culture determines the way in which a school perceives change, learning and responsibility. When the culture is characterized by trust, mutual support and a data-informed culture, then the conditions for sustainable improvement are created. In contrast, schools with a culture of individualism, low expectations or "mandatory compliance" tend to produce short-lived changes without depth (Hopkins and Baumber, 2019). Organizational culture is therefore today considered the core of school improvement and not a secondary element, since it determines the school's ability to learn as an organization and adopt continuous improvement processes.

The third dimension is school climate, which includes students' and teachers' perceptions of safety, justice, relationships, inclusion, and support. School climate is directly related to school improvement for two main reasons: (a) it influences the learning process, as students learn better in environments that are safe, supportive, and fair, and (b) it functions as a mechanism to strengthen teachers' professional collaboration, since positive relationships and trust foster collective action. In other words, quality improvement is not only about teaching methods but also about the context in which they are implemented. Current literature shows that models of school improvement that focus exclusively on external evaluations or "technical" changes ignore the importance of climate and culture and therefore have reduced sustainability (Hopkins and Baumber, 2019).

The fourth dimension is the administrative and leadership framework, i.e. the structures and management practices that organize the operation of the school, mobilize staff and transform improvement goals into specific processes. The administrative framework includes strategic goal-setting, resource management, communication, evaluation and feedback processes, as well as the enhancement of professional development. Modern analyses argue that effective school improvement requires participatory and distributed forms of leadership, which allow teachers to function as co-formulators of change and not as executors of external orders. Distributed leadership has been associated with improving school climate, strengthening teacher commitment and developing collective professional learning, thus acting as a lever for sustainable school improvement (Nadeem, 2024). In summary, school improvement can be defined as a continuous, documented and organizationally integrated process, which aims to improve learning outcomes and at the same time develop the school's internal capabilities for collaboration, change and effective functioning.

THE ROLE OF THE ADMINISTRATIVE FRAMEWORK IN SCHOOL IMPROVEMENT

The administrative framework of a school is one of the most decisive factors in the process of school improvement, as it shapes both the decision-making conditions and the relationships, practices and mechanisms that activate the collective effort towards quality. In secondary education, school improvement cannot be understood as a piecemeal intervention or as the

result of individual initiatives, but as a dynamic and ongoing system of organizational change, in which the administration functions as a regulatory mechanism for coordination, mobilization and creation of a culture of continuous improvement. International research indicates that administration based on clear structures, transparent processes and participatory mechanisms strengthens organizational cohesion, the sense of collective responsibility and the operational effectiveness of the school, linking the administrative function with the goals of pedagogy and learning development (Karakose et al. 2024).

Of particular importance is the concept of the administrative framework as an organizational architecture, that is, as a set of structures and practices that determine the way in which the school "functions" as an organization. Organizational culture —the values, rules, habits and informal cooperation structures— is directly influenced by the management style and leadership models adopted by the principal and the administrative team. The literature argues that school culture is not a static characteristic, but is "constructed" daily through administrative practices that encourage participation, trust and professional learning. In a related theoretical approach, school organizational culture is analyzed as a multidimensional phenomenon, which includes political and social components, while it is directly linked to the leadership and management models adopted in the school (Torres, 2022).

In this context, school climate is another critical area through which the administrative framework influences school improvement. School climate includes teachers' and students' perceptions of the level of safety, the quality of relationships, the sense of justice, support and cooperation. A positive school climate is systematically associated with higher learning effectiveness, better relationships between students and teachers and, more generally, with an increased capacity of the school to manage changes and challenges. Recent research confirms that the quality of relationships and the degree of cooperation within the school significantly differentiate "high-effective" schools from "low-effective" ones, highlighting that school climate is not just a social characteristic but a core of educational quality (Delgado-Galindo et al. 2022).

The role of the administration here is twofold: on the one hand, it determines the framework in which the climate is formed (rules, roles, communication, ways of resolving conflicts), and on the other hand, it activates the improvement processes through targeted practices. International literature highlights that school climate often functions as a "mediator" between leadership and performance: that is, leadership practices affect learning outcomes not directly but through the improvement of organizational relationships, trust and support. In a recent review of Ozdogru et al. (2025), it is pointed out that leadership and school climate are statistically significant variables for achieving improvement, while the influence of leadership "passes" through different types of leadership (transformational, supportive, distributed and pedagogical/didactic).

A key element of the administrative framework that emerges in the contemporary literature is the degree of autonomy and school decentralization (school-based management). The connection between school autonomy and school improvement has been documented through international comparative analyses, which show that higher levels of autonomy are associated with significant improvements in dimensions of school climate, such as academic culture,

community and safety. The relationship with the dimension of safety seems to be particularly strong, an element that is crucial for secondary education where social dynamics are often more complex (Khanal and Guha, 2023). Autonomy, however, does not automatically function as an improving factor; an appropriate administrative framework is required that combines accountability, clear targeting, evaluation and support for school leadership, so that decentralization can be transformed into a real opportunity for development and not into a transfer of responsibilities without resources.

From a Total Quality Management perspective, the administrative framework becomes even more important, as TQM relies on organizational structures that facilitate continuous improvement, evaluation, feedback, and shared responsibility. Recent studies examining quality and administration in secondary education show that the implementation of quality management practices is positively associated with student achievement and significantly predicts the strengthening of school culture (Parveen et al. 2024). Furthermore, research shows that leadership is a key mechanism for developing a "quality culture" and for implementing models such as EFQM in educational administration, which reinforces the hypothesis that TQM needs a supportive and participatory administrative framework to be effective (Anastasiou and Ntokas, 2024).

Therefore, the administrative framework functions as the main mechanism that connects organizational culture and school climate with school improvement. A school that seeks systematic improvement needs an administration that is not limited to managing everyday life, but develops a clear strategy, institutionalizes cooperation processes, utilizes data, empowers teachers and invests in creating a positive school climate. Based on the current literature, the most effective administration models seem to be those that support participation, collective responsibility and an emphasis on learning, namely mainly distributed leadership combined with elements of didactic and transformational leadership, while school autonomy enhances improvement when accompanied by supportive structures and accountability (Khanal and Guha, 2023).

RESEARCH DATA ON THE IMPLEMENTATION OF TQM IN SECONDARY EDUCATION

The application of Total Quality Management (TQM) in secondary education has been a field of increased research interest in recent years, as many educational systems seek to move from the logic of simple administrative management to a model of systematic school improvement with an emphasis on efficiency, continuous improvement, accountability and a focus on stakeholders. International literature shows that TQM in the school environment is not applied as "one" single model, but as a set of practices that include: strategic planning, process organization, participatory management, data utilization, development of a culture of cooperation, as well as feedback and evaluation systems (feedback loops) (Anastasiou and Ntokas, 2024).

Recent empirical research in public secondary schools (e.g. Punjab, Pakistan) has shown that quality management practices, such as process management, feedback, teacher participation, and strategic planning, are statistically related to strengthening school culture and are also

associated with student achievement indicators. The study, utilizing a mixed design, revealed that principals perceive quality culture as a result of both administrative practices and systemic support, indicating that TQM works best when the school has the organizational capacity for change (Parveen et al. 2024).

Anastasiou and Ntokas (2024) note that leadership is a critical mechanism for building a quality culture, as it encourages collaboration, organizes goals, and creates functional structures for systematic improvement. In this context, the administrative function does not function only as "management", but as a mechanism for qualitative school reform. In more organizational applications, a study utilizing the EFQM model in a secondary vocational school showed that the implementation of a quality framework allows the school to identify weaknesses, propose improvements and develop a strategic orientation towards sustainability and effectiveness. The study highlights that quality standards function as a diagnostic and planning tool, not simply as a "certification stamp", and that their value is maximized when staff are involved and when an internal feedback system is created (Sütőová et al. 2022).

Empirical findings also link the implementation of TQM to improved school climate, especially when the quality framework is implemented through participatory practices and stakeholder empowerment. Although some of the literature is theoretical, there are also empirical approaches that suggest that enhancing quality in administration can lead to a safer and more supportive environment, which acts as a key factor for academic performance. Related works emphasize that the impact of TQM on student performance is more pronounced when associated with a climate of trust, cooperation and fairness in the school (Mahmood et al. 2020).

Although the data show positive trends, a significant part of the research focuses on implementation barriers. Studies in public secondary schools identify as main barriers: inadequate training, lack of resources, limited participatory culture, administrative discontinuity, bureaucratic pressures and resistance to change. In Suleman and Gul's (2015) study on the challenges of implementing TQM in secondary schools, the lack of structured support and the absence of systematic evaluation appear as critical inhibiting factors. This finding is particularly important, as it shows that TQM cannot be successfully implemented as "rhetoric", but requires infrastructure and organizational maturity.

Finally, the most recent literature examines TQM as a factor that enhances educational innovation and "quality management results". In a study based on the perceptions of teachers in public secondary education structures, the impact of TQM and innovation practices on quality management results is examined, confirming that quality and innovation are not competitive but complementary processes. The integration of innovation into the quality framework appears to enhance management effectiveness, especially when it functions as an organizational practice that motivates staff and creates a culture of continuous learning (Psomas et al. 2025).

CONCLUSIONS

This literature review has shown that Total Quality Management (TQM) can function as a substantial and integrated administrative tool for school improvement in secondary education,

provided that it is applied not as a formal compliance framework, but as an organizational development strategy. School improvement, as approached in this paper, is not limited to improving learning outcomes, but concerns the overall capacity of the school to develop mechanisms for self-evaluation, collaboration, feedback and effective change management (Karakose et al. 2024).

The findings of the review demonstrate that the implementation of quality practices in secondary education is positively associated with critical organizational and pedagogical dimensions. In particular, the studies analyzed converge on the fact that practices such as strategic planning, process management, feedback mechanisms, teacher participation and institutionalized evaluation can strengthen organizational cohesion and support a culture of continuous improvement in the school. Furthermore, it was shown that school culture and school climate are key intermediary mechanisms through which TQM can lead to improvement results, as an environment of trust, cooperation and justice favors both the professional development of teachers and the learning engagement of students (Delgado-Galindo et al. 2022). Therefore, the contribution of TQM is not only about administrative efficiency but extends to strengthening the collective identity of the school as a learning and evolving organization.

Finally, the paper highlights practical and theoretical implications: it suggests that TQM can be used as a framework for strategic school development, especially when combined with participatory leadership, the development of a quality culture and the institutionalization of internal evaluation processes. In this way, the article contributes to shifting the discussion from simply "adopting quality models" to creating schools that function as learning and continuous improvement organizations, offering an evidence-based and modern approach to enhancing quality in secondary education.

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