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Core Components of Quality Education in the Quality Management Support System: A Systematic Review

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Abstract

Purpose: This systematic review synthesizes research on core components of quality education—curriculum, teaching, learners, leadership, resources, and parental engagement—within the Quality Management Support System (QMSS) framework.

Methodology: Following PRISMA guidelines, 50 peer-reviewed studies and policy reports from 2000 to 2024 were thematically analyzed, sourced from Scopus and Google Scholar using keywords related to educational quality.

Findings: Quality education requires a coherent curriculum aligned with standards, skilled and reflective teachers using learner-centered practices, motivated learners supported by families, strong leadership, equitable resources, and active family-school partnerships. These elements align with UNESCO's SDG4 and UNICEF's Education Quality Framework.

Conclusions: Fragmented efforts focusing on individual components are insufficient. A QMSS approach integrating all elements through continuous monitoring and stakeholder feedback is essential for systemic educational improvement.

Originality: This review uniquely integrates core educational quality components within the QMSS framework, emphasizing their interdependence and alignment with global standards, promoting a holistic rather than isolated approach.

Keywords: quality education, quality management support system, curriculum, pedagogy, school leadership, parental involvement

Introduction

One of the promises that highlight how crucial good education is for the world's growth is UNESCO's Education 2030 plan. At the World Education Forum in 2015, nations vowed once more to "ensure inclusive and quality education" (SDG4). But it's impossible to say what "quality" implies in education. UNICEF mentions a number of things, including the pupils' health, equitable materials and techniques, and learning outcomes. Studies have shown that several characteristics are highly crucial for schools to perform successfully in real life. These include a clear curriculum, skilled teachers,

interested students, strong leaders, appropriate resources, and support from families. For example, Mduwile and Goswami (2024) believe that the most essential aspects of a successful education are "standardized curriculum, excellent teachers, practical students, suitable resources, capable leaders, and understanding parents."

For a long time, finding decent schools has been a big problem in the history of education. The goal of schools in ancient Greece, Rome, and China was to educate moral values, encourage critical thinking, and protect the harmony in society (Tedla & Kilango, 2022). But most people couldn't attend to school since it was largely for the privileged. During the Revival, things changed. Humanism grew, which focused on helping individuals develop their own unique skills and encouraging them to think for themselves. Leonardo da Vinci, Michelangelo, and Galileo Galilei were prominent figures who helped spread information and pushed education as a tool to achieve knowledge and power (Salamone & Rossigoli, 2006).

The Industrial Revolution in the 18th and 19th centuries made society more industrialized, which meant that huge schools had to be built to satisfy the needs of the people. But these systems often put more emphasis on discipline, obeying rules, and memorization than on helping individuals think critically, be creative, and grow as people. In the 20th century, public schools grew all across the world, which made it simpler for youngsters and teenagers to attend to school. UNESCO and the World Bank are two groups that have made it even clearer that everyone has the right to a good education and that it is a key role in social and economic progress (Action Aid, 2017).

A lot of famous people have helped us understand what a great education is. One of them is John Dewey, an American philosopher and teacher who had some really new ideas about how to educate. He wanted a student-centered, hands-on approach of learning that focused on developing problem-solving and critical thinking abilities (Li, 2023). A lot of schools and teachers have changed the way they do things because of his ideas. Another major individual who assisted was Paulo Freire, a Brazilian teacher and philosopher known for his critical pedagogy. He argued that education should help people become free, give them power, and encourage equality and social justice. Teachers all around the globe are using more fascinating and life-changing approaches to teach because of his philosophy of "critical consciousness" and his concentration on talking, thinking, and doing (Makunja, 2015).

People, communities, and economies are all greatly affected by good education. It provides people the tools they need to fulfill their greatest potential, serve others, and deal with a world that is continually changing. Oxfam (2019) says that good education is particularly essential for lowering poverty, improving health, fostering gender equality, and encouraging peace and social harmony. It achieves this by teaching pupils the values, skills, and information they need.

For economic growth and development, it is also highly crucial to have good schools. Studies have shown that investing money on education makes individuals more productive, gives them new ideas, and encourages them to establish their own firms. All of these things are good for the economy (Hastuti et al., 2020; Khaki, 2006). Good education also helps to close the gap between rich and poor, make it simpler for people to move ahead in society, and provide new chances for long-term growth.

Good education has a lot of benefits, but it also has a lot of issues and constraints. Access to decent education is still not fair in many regions of the world due of reasons like not having enough money, being biased, being in a conflict, or not having adequate resources. Overcrowded classrooms, old content, poorly trained instructors, and a lack of infrastructure and up-to-date

technology can all make education worse. Also, the heavy focus on standardized tests and high-stakes assessments might make it tougher for students to grow as a whole, which could lead to increased inequality and social isolation (Gandhari, 2021).

More and more individuals want to switch schools so that they may learn in ways that are more fair, beneficial, and open to everyone. The UN created the Sustainable Development Goals (SDGs) in 2015. One of these aims is to make sure that everyone gets a good education (SDG 4). By 2030, our objective is to make sure that all kids can get an education that is fair and open to everyone. We need to put money into early childhood education, make teacher training and support better, give kids more chances to study throughout their lives, and educate them how to utilize technology and other essential 21st-century skills (United Nations, 2015).

Personalized learning, competency-based education, and online and blended learning are all new methods for students to learn, work with others, and obtain the aid and resources they need. Digital tools like AI, virtual reality, and blockchain are also being utilized to enhance learning and teaching better, make administrative tasks easier, and provide students in poor places more possibilities to study.

To make sure that great education has a bright future, there are huge concerns that need to be fixed. Because technology is changing so rapidly, it's difficult to tackle global problems. In a knowledge-based economy, the demand for lifelong learning develops. Because of this, schools need to become more flexible, open, and responsive. Policymakers, teachers, parents, and students all need to work together to make sure that high-quality education involves things like making the curriculum, teaching techniques, assessment methods, teacher development, and getting the community engaged (Barrett et al., 2006).

A lot of individuals argue that the term "quality education" is subjective and might signify different things to different people. From research to entrepreneurship to human resource management (HRM), Technology Integration Efficacy (TIE) provides a complete measure of the success of information and communication technology (ICT) and artificial intelligence (AI) adoption across many spheres. Through an analysis of elements like infrastructure quality, user competence, policy alignment, and output efficiency, TIE offers a complex picture of how technology integration affects organizational objectives. There are still many definitions that try to explain what makes for good education, which shows how complicated and varied it is. UNICEF (2015) says that a good education has five main parts: students who are healthy, learning environments that are helpful, curriculum that is relevant, and teaching methods that are focused on the child. These pieces work together to make sure that every kid has the right to learn properly. The study looks at important parts of education, like how well students do, how good the teachers are, how relevant the curriculum is, how available resources are, how involved parents are, and how strong leadership is. The author also talks about the Teaching Learning Support (TLS) model, which is similar to other educational systems.

Schools usually learn these components individually, even if we understand these notions. The Quality Management Support System (QMSS) notion, which is based on corporate QMS models, says that all of these aspects should always be becoming better by leveraging data and input from stakeholders. There hasn't been a thorough research yet that looks at how all the parts of a QMSS environment operate together, such the curriculum, teaching, students, leadership, resources, and parental engagement.

There is a lot of research on things like how well teachers do their jobs, how well schools are run, and how involved parents are, but not many studies look at all of these things together from a quality-management point of view. For example, people usually think of good curriculums and

teacher training programs as two different things, and getting parents engaged is considered as a separate way to help. This fractured image doesn't show the connections: an intriguing curriculum could only make students more motivated if teachers are well-prepared and parents help with homework. In a perfect world, a QMSS would bring these pieces together by using data to plan. This study fills in the gap by offering an integrated framework after carefully looking at studies that looked at all six components from different angles.

Research Objective

The primary objective of this study is to systematically review and synthesize literature on the core components of quality education—curriculum, teaching, learners, leadership, resources, and parental involvement—within the Quality Management Support System (QMSS) framework.

Literature Review

A good education is an important aspect of making progress in society, the economy, and on a personal level. Education 2030 and SDG4 from UNESCO are two projects that help with this all across the world. They believe that everyone should have access to an honest and fair education. It's still hard to define "quality," though, because it encompasses everything from the correct curriculum and qualified teachers to kids who want to learn and parents who are interested (UNICEF, 2000). In the past, moral and aristocratic principles were the basis of education systems. Now, they are working on frameworks that include everyone and promote lifelong learning. These new models are based on the ideas of Dewey and Freire. There are still concerns, though, like unequal access, outdated curricula, not enough resources, and too much focus on standardized testing, especially in areas with low resources. The Quality Management Support System (QMSS) is one example of a system-level strategy that works with others to solve these difficulties. It employs all six pieces to build a base for making things better all the time.

This evaluation focuses at how the QMSS framework's curriculum, teaching, students, leadership, resources, and parental participation all work together to affect the quality of education. It does this by comparing the QMSS framework to global standards like SDG4 and UNICEF's quality indicators underscoring the necessity of interconnected, research-based strategies in advancing academic quality and sustainability (Mishra & Nepal, 2022; Mishra, 2022; Mishra & Jha, 2023).

The QMSS Framework for Good Education

To really understand what quality education is in a Quality Management Support System (QMSS), you need to look at its essential parts: the teachers, the curriculum, the students, the resources, the leadership, and the parents. All of these aspects are connected and form the structural base for providing high-quality, fair, and appropriate education in a range of settings (UNICEF, 2000).

Quality Teachers

A well-planned curriculum won't work if the teachers aren't skilled and motivated. According to Hoge (2003), teachers are the most crucial aspect of a strong school system. Without skilled instructors who can make sense of and turn what students learn in school into beneficial learning experiences, the educational process doesn't work as well. Teachers do more than simply educate; they also assist students grow in their minds, hearts, and relationships with other people (Saloviita, 2020). According to Pohekar (2018), a teacher's academic qualifications, teaching abilities, and capacity to interact with students are all highly crucial for learning in the classroom.

A lot of individuals are in favor of child-centered education, but it has to be taught by teachers who know how to apply adaptive teaching methods (Benson, 1977). Studies demonstrate that kids, especially those who are having problems in school, do far better when they are taught by teachers who are ready (Saloviita, 2020).

Quality Curriculum

A carefully planned school curriculum is an important aspect of making sure that pupils learn successfully. Uhl (2023) believes that the purpose of a curriculum should be to assist society attain its goals by putting together theory, research, and practical usage in a way that makes sense. A curriculum that is student-centered, adaptable, and open to all students is more likely to be popular with a lot of kids (Haris, 2016). Barrett et al. (2006) believe that national educational goals should guide the creation of a curriculum, and that there should be clear learning outcomes.

A strong curriculum must also satisfy the needs of deep learning, which encompasses moral, cognitive, emotional, and social growth (UNICEF, 2000). For example, a medical school that doesn't teach ethics can produce doctors who are brilliant at their professions but don't have morals. Reading, math, life skills, and value-based training should all be part of a program to help people grow as a whole (Hoge, 2003).

Quality Learners

The learner's mental, physical, and emotional health has a huge effect on how much they can learn. Benson (1977) states that things like diet, stimulation, and healthcare in early life are particularly crucial for later learning success. Haseena and Ajims (2015) say that going to school regularly, being healthy, and getting good marks are all connected. Mbelle (2008) found that youngsters in Malawi who attended to school every day were less likely to fail grades or leave out. This backs up the assumption that kids who learn well get aid from both their school and their home.

Quality Resources

When it comes to great education, there is no question that students need access to learning materials and good schools. Agnihotri (2017) found that Indian kids did far worse in Hindi and math when they didn't have access to basic resources like electricity, libraries, and technology. Barrett et al. (2006) found that students in Latin America who didn't have enough resources also fared poorly in school.

Adding technology to classrooms might revolutionize how pupils learn, especially in areas with few resources. According to Lafcı-tor (2017), online education, video conferencing, and e-learning platforms make it easier for everyone to get an education by reducing barriers of time and distance.

Quality Leadership

Leadership is at the heart of the QMSS method. Mukhopadhyay (2014) argues that school leaders have a huge influence on how well the school functions by making sure that the school is a nice place to learn, motivating staff, and making sure that school policies are in accordance with strategic goals. A leader's words and actions set the tone for the school, which impacts how involved students and staff are.

School leadership is also linked to setting up procedures for recognition and running schools in a democratic way. Haseena and Ajims (2015) argue that schools may be able to get more done by providing kids and teachers awards, having contests, and working together to organize things. Ashman and Conway (1997) also suggest that giving teams more authority and sharing leadership are good methods to make things better. For education to thrive throughout time, there has to be leadership that follows moral standards and values diversity (Khaki, 2006; Hastuti et al., 2020).

Quality Parental Engagement

Parents' involvement has a big impact on a student's academic career. Khaki (2006) and King (2013) both state that kids whose parents are interested in their schooling, whether it's by keeping an eye on them, participating, or supporting them, always do better than their classmates. Makunja (2015) also talks about how family support may help with school and fill in learning gaps at home.

Hastuti et al. (2020) argue that schools and families should communicate to each other a

lot so they may hold each other accountable and work together to attain their educational goals. When parents attend to school activities, help with homework, and make their homes good places to study, their kids are more likely to be motivated and achieve well.

Theoretical Framework

Foundation: Systems Theory in Education

The QMSS framework is based on General Systems Theory (Bertalanffy, 1968). This idea says that education is a dynamic, interconnected system in which one aspect impacts the others. According to systems thinking:

- A change in one element (e.g., teaching quality) affects the whole system (e.g., student outcomes).
- Quality education is the product of synergistic interaction among subcomponents: teachers, learners, curriculum, leadership, infrastructure, and parents.

So, QMSS is built on the premise that institutions can only be successful if they get feedback all the time, depend on each other, and operate together across three pillars (Senge, 1990).

Core Theoretical Constructs by Component

The two fundamental theories behind the idea of good teaching are Constructivist Learning and Pedagogical Content Knowledge (PCK). Piaget (1952) and Vygotsky (1978), two constructivist theorists, claimed that learning is an active process in which pupils gain knowledge by experiencing and thinking about it. Good teachers don't just provide pupils information; they also help them understand it by guiding and supporting their learning. In a Quality Management System in Schools (QMSS), this approach sees teachers as partners in helping students learn. This makes pupils more interested and helps them learn in a useful way.

Tyler's (1949) Objectives Model claimed that a good curriculum requires defined learning goals and that the curriculum, instruction, and evaluation all needed to work together. The Partnership for 21st Century Skills (2019) and other modern educational frameworks argue that classes should help students learn not only cognitive skills but also social and digital skills. The QMSS supports a curriculum that is open to everyone, flexible, and focused on results by using these points of view. It satisfies the needs of both students and society in a world that is continually changing.

Using Human Capital Theory and Ecological Systems Theory can help us understand more about what makes a good learner. Becker (1964) said that spending money on food, health, and education is good for the economy and society in the long run. Bronfenbrenner's (1979) Ecological Systems Theory, on the other hand, explains how many aspects of the environment, like family, school, community, and policy, all interact together to influence a person's growth. The QMSS model says that all of these ecological systems must work together for pupils to grow in all areas.

The Input-Process-Output (IPO) model from UNESCO (2005) can help us figure out how to deliver schools the resources they need. This theory suggests that education is a system that evolves over time. For example, infrastructure, instructional materials, and technology all influence how teachers teach and, in the end, how students learn. For teaching and learning to work well, it is essential crucial that resources are fairly and sufficiently shared among all QMSS members.

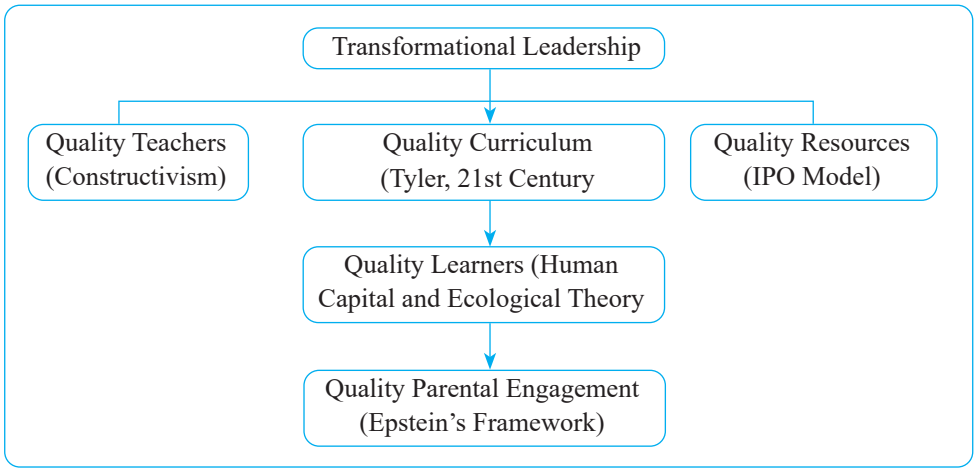
The framework for working out how leadership influences the quality of education includes a lot of ideas from transformational leadership theory. Bass and Avolio (1994) say that transformational leaders are those who encourage new ideas, work together, and develop a clear vision for the future. Leithwood et al. (2004) also say that instructional leadershiped led can directly effect how well children do by helping instructors become better at their jobs. The leaders of the QMSS are visionaries and facilitators who make

sure that all the schools work together and that everyone is continually trying to improve things.

Epstein's (1995) Framework of Six Types of Involvement also suggests that parents should take part in their children's life. Epstein talks on the most important things that parents do, such as being a parent, talking to their kids, volunteering, helping their kids learn at home, making choices, and getting involved in the community. In the QMSS setting, these kinds of activities are very important since they help students do better in school, make the link between home and school stronger, and encourage everyone to take responsibility.

Figure 1

Conceptual Framework



Explanation:

- Leadership has an effect on every component of the system, from educating teachers to putting the curriculum into action to giving out resources.
- The curriculum, teachers, and resources are all crucial elements of teaching.
- The major beneficiaries are the learners, whose progress is shaped by both systemic elements and help from their parents.
- The QMSS logic makes sure that there is monitoring, feedback, and help at all levels so that changes may be made depending on what is found.

Theoretical Proposition

We may make the following theoretical statement using the framework above —"A Quality Management Support System (QMSS) makes sure that education stays high quality and the school works well by bringing together skilled teachers, flexible curricula, supportive leadership, enough resources, interested students, and active parental involvement."

This theoretical framework offers you a solid foundation for putting together and understanding the outcomes of your PRISMA-based review. It will:

- Help with putting themes into groups and writing code.
- Provide a means to compare the findings of different studies.
- Support policy ideas that come from more than one discipline of study.

These six sections are the main parts of an educational quality framework that is in line with QMSS. A system that works together to help kids achieve long-term academic success

and make their school outstanding includes a well-planned curriculum, excellent teachers, enthusiastic students, enough resources, forward-thinking leadership, and active parental support. More research should look into how these pieces interact together in real school systems and how data-driven QMSS frameworks could aid with continuous growth.

This review is limited by its reliance on published literature and English-language sources; it may under-represent low-resource settings where unpublished reports prevail. The diversity of study designs (quantitative vs. qualitative) also makes direct comparison challenging.

Methodology

This paper has adopted the research synthesis approach to assess the extensive range of existing literature on adaptive capacity and its systematic review. The methods and process of the article search, selection, and collection largely followed a systematic literature review method, which conceptually and practically considered a suitable approach to increase methodological transparency and consistency in synthesizing the findings.

The Google Scholar advanced search, title search platforms were used for the literature using the key- words From June to October 2024, The search terms were such as "quality curriculum," "teacher quality," "school leadership," "educational resources," "parental involvement," and "student outcomes." We used Boolean operators and truncation, such "(quality AND [curriculum OR leadership OR resources]) AND education." We also checked the references of key reviews. We undertook a PRISMA-based review of educational quality using the same method as Benavides & Trujillo (2025).

Selection Criteria: We only included titles and abstracts that met the following criteria: (a) They focused on one or more quality education components in formal schooling (primary/ secondary/tertiary); (b) They were empirical studies, literature reviews, or policy analyses published in English between 2000 and 2024; (c) They were published in peer-reviewed journals or reputable international organization reports; (d) They talked about how the component affected school effectiveness or student learning. We didn't include technical manuals, case reports that didn't provide analytical data, or circumstances that didn't give us any information.

Inclusion/Exclusion

The first searches turned up roughly 500 entries. After getting rid of duplicates and sources that weren't in English, we read the abstracts. We included research that helped us learn how a specific component of education, such the curriculum or the method it is taught, influences the quality or improvement of education. The study "School resources and learning outcomes" was included, for example, since it indicates via research that resources are linked to student performance. We didn't include opinion pieces that didn't have any evidence, studies with extremely tiny sample sizes, or policy papers that were no longer relevant. It was the same as in Benavides & Trujillo (2025), where 50 papers were preserved for a full examination based on the aforementioned criteria.

Data Extraction and Analysis

We read each chosen source in full and wrote down notes about the study's background, methodology, and noteworthy results that were related to one or more components. We used theme synthesis to categorize texts based on the six key subjects. For example, we include a study regarding teacher training under "Quality Teaching" and references to new syllabi under "Quality Curriculum," and so on. Then, the findings were put together into a tale, with comparable issues (such "teachers' pedagogical skills" or "parent-school communication") grouped together and any discrepancies noted. At least two authors checked each selected paper to make sure it was accurate. Because of this strategy, we were able to produce a thematic summary of the evidence for each section, which you can see below.

Results and Discussion

The systematic review's findings underscore critical insights derived from 50 peer-reviewed research and reports examined within the Quality Management Support System (QMSS) framework. The theme synthesis categorized the literature into six interconnected elements of quality education: curriculum, instruction, students, leadership, resources, and parental engagement. These parts became the main pillars that, when put together correctly, support long-term educational quality and fairness. The results are analyzed by theme, showing how important each part is to the whole system and how it supports other parts. Then, the overall significance of all the parts for educational policy and practice is put together. The theme synthesis gave us important information about each basic part. We present important results, grouped by theme.

Quality Curriculum

Thematic synthesis confirmed that a coherent, context-responsive curriculum is foundational to educational quality. It is very important for the curriculum to match both national standards and the demands of students in the actual world, according to research. Steiner (2021) thinks that Finland and South Korea have some of the best education systems because they use content-rich curriculums that help pupils learn the basic skills they need. Mduwile and Goswami (2024) said that a well-organized and structured curriculum helps youngsters learn better by teaching them fundamental skills in the same way.

Research shows that curriculum that are out of date or too full impede down cognitive development. But the curriculum is more successful when it is reviewed on a regular basis and made sure that it meets assessments and teacher training. People think that Quality Management Support Systems (QMSS) are very important because they make sure that curriculum reviews happen on a regular basis and that they are in line with the way lessons are taught.

A good curriculum teaches students things that are clear, practical, and in line with what they need to know and what the community needs. Researchers argue that lessons should be challenging and fit the situation. Steiner (2021), for example, says that the best school systems, like those in Finland and South Korea, all have "content-rich curriculum and commensurate standards" that make sure kids learn important things. A good curriculum incorporates everyone and teaches them how to think critically and live their life. Many studies show that students do better when the curriculum is up to date and organized in a way that makes sense. Mduwile and Goswami (2024) say that a well-planned, standardized curriculum is vital because kids learn fundamental skills better when they have "relevant curricula and materials." On the other side, a curriculum that is too short or too full of old material might cause gaps in learning. To make sure the quality stays good, you should evaluate the curriculum from time to time to make sure it meets the tests and teacher training.

Quality Teaching

High-quality teaching is repeatedly identified as one of the most crucial factors for student learning. Research shows that teacher quality directly influences outcomes, especially for disadvantaged learners. Teachers who are well-trained, motivated, and use effective pedagogies can dramatically improve student achievement. For example, Mincu (2015) reports that "teacher quality is vital if disadvantaged students are to succeed" and that teacher education is key to building a high-quality teaching force. UNICEF similarly defines quality teaching as "Processes through which trained teachers use child-centred teaching approaches in well-managed classrooms… to facilitate learning". Common features of quality teaching include clear instruction, formative assessment, and adaptation to students' needs. In practice, professional development, collaborative learning communities, and feedback mechanisms are cited as effective supports for improving teaching quality. For instance, studies find that

ongoing teacher mentoring and peer coaching lead to better instructional practices. In a QMSS framework, monitoring teaching quality (through observations or student surveys) and providing training/coaching are essential processes.

Teacher effectiveness emerged as the single most influential determinant of student learning across contexts. Multiple sources, including Mincu (2015), noted that skilled, motivated, and pedagogically trained teachers significantly improve outcomes, especially for disadvantaged students. Clear instruction, use of formative assessment, differentiated pedagogy, and continuous feedback are common hallmarks of effective teaching practices.

UNICEF defines quality teaching as "processes through which trained teachers use child-centred teaching approaches in well-managed classrooms." Across studies, professional development (e.g., peer coaching, mentoring, in-service training) was linked to improvements in instructional quality. QMSS frameworks promote regular classroom observations, student evaluations, and coaching sessions to enhance teaching practice and foster accountability.

Quality Learners

"Quality learners" refers to the conditions and characteristics of students that enable learning. UNICEF emphasizes that healthy, well-nourished students who are psychosocially ready to learn, and who receive family support, are better learners. In line with this, research links children's health and well-being to academic success. For example, school programs that include health/nutrition support or psychosocial services report improved attendance and performance. Engaged students (with good attendance and motivation) also contribute to a quality educational environment. Thus, ensuring learners' readiness involves health interventions (vaccinations, meals), safe school environments, and policies like compulsory education. Many sources note that family and community factors (e.g. parents' literacy, home learning activities) shape learner quality. Under a QMSS, indicators related to learners might include rates of malnutrition, attendance, or scores on school readiness assessments. Ensuring "quality learners" therefore requires cross-sector collaboration (health, social services) and family engagement. Learners who are regularly present, motivated, and supported also contribute to a more effective and inclusive educational environment. Ensuring learners' readiness requires multisectoral interventions such as safe and healthy school facilities, compulsory education policies, and collaborative health-education initiatives. Numerous studies affirm that family and community contexts such as parental literacy, home learning environments, and access to support services significantly shape learner quality. Within a Quality Management Support System (QMSS), this would mean measuring indicators such as nutritional status, attendance rates, and school readiness scores. Creating "quality learners" therefore demands inter-sectoral collaboration between education, health, and social services, as well as institutional reforms that prioritize student well-being and inclusive governance (Gautam et al., 2025).

Studies underscore that students' physical, emotional, and psychosocial readiness are critical enablers of learning. According to UNICEF, "quality learners" are healthy, well-nourished, and supported by families. Programs providing health, nutrition, and psychosocial services—such as school feeding or immunization campaigns—were linked with higher attendance, engagement, and academic performance.

Research indicates that parental literacy, home learning environments, and student motivation are equally significant. Effective QMSS applications in reviewed literature include indicators like attendance rates, nutritional status, and readiness assessments, often linked with inter-sectoral coordination among education, health, and social service departments

Quality Leadership

Educational leaders (principals, head teachers, and system administrators) are critical enablers of quality schooling. Leadership has been called "second only to teaching" in its impact on student learning. Effective leaders set a clear school vision, build capacity, and create a supportive organizational culture. As one review notes: "leaders play a critical role in both pupils' achievement and school improvement". Key leadership practices include setting directions (shared goals and high expectations), developing people (providing training and support), and redesigning the organization (aligning school structures to learning). Empirical studies find that strong instructional leadership (focusing on teaching and learning) and distributed leadership models both raise school effectiveness. Moreover, leadership is especially important in low-performing schools – visionary leaders can mobilize communities and utilize limited resources efficiently. In the QMSS context, leadership involves using data for decision-making and sustaining continuous improvement cycles. For example, leaders might track performance indicators, allocate resources to problem areas, and engage stakeholders. In summary, competent and committed leadership is a core component that shapes all other aspects of quality education.

Quality Resources

Adequate and equitable resources (physical, material, financial) are foundational for quality education. This includes school infrastructure (buildings, classrooms, sanitation), instructional materials (textbooks, technology), and human resources (sufficient qualified staff). A large body of evidence shows that lack of resources undermines learning. For instance, one study reports: "student learning outcomes are influenced by resources available to the students in schools". Rahim (2018) groups school resources into infrastructure (classrooms, labs), instructional materials (books, blackboards), and amenities (water, electricity) – all linked to learning outcomes. Inadequate facilities or materials cause direct problems (e.g. leaking roofs disrupt classes. UNESCO and UNICEF also stress that safe, well-equipped learning environments with "adequate resources and facilities" are part of quality educational settings. Thus, ensuring quality resources means not only more funding but strategic use (e.g. guiding textbooks that align with curriculum) and maintenance. A QMSS would track resource indicators (such as pupil–textbook ratios, funding per student) and ensure equitable distribution.

Consistent with Rahim (2018) thematic findings confirm that infrastructure, materials, and qualified personnel are essential for sustaining learning environments. Physical resources (e.g., safe classrooms, electricity, sanitation), instructional tools (e.g., textbooks, digital content), and equitable staffing directly affect learning outcomes.

Studies found that poorly resourced schools faced higher dropout rates and lower achievement. For example, schools with adequate pupil–textbook ratios and functioning sanitation facilities showed improved engagement. QMSS models emphasize strategic budgeting, resource audits, and equity-focused distribution to address these disparities.

Parental Involvement

Family and community engagement is recognized as a vital dimension of quality education. Research consistently finds that active parental involvement in a child's schooling is associated with better academic outcomes. For example, parental practices such as monitoring homework, communicating with teachers, and fostering learning at home have "a positive impact on children's academics". Musengamana's systematic review highlights Epstein's model of parental involvement (home, school, community) as a framework: all three dimensions support learning. Empirical studies show that when parents have high educational expectations and work with schools, student performance improves. Fan

and Chen (2001) found that parents' expectations were positively related to children's cognitive outcomes. In contrast, disengaged or punitive parenting can impede learning. Therefore, quality education systems encourage family–school partnerships: for instance, regular parent–teacher meetings, volunteer programs, and parent education workshops. UNICEF and others note that parents are part of the learning environment: children who are "supported in learning by their families" tend to achieve more. Within a QMSS, parental involvement might be measured through participation rates or surveys of home support, and efforts made to involve families in school improvement efforts.

A strong consensus emerged around the positive impact of active parental and community engagement on educational outcomes. Fan and Chen (2001) found that parents' expectations significantly correlate with students' cognitive performance. Epstein's framework—categorizing involvement across home, school, and community—was repeatedly cited as a guiding model.

Systematic reviews, such as Musengamana (2023), confirmed that effective parent–school communication, home learning support, and participatory governance enhance student achievement. UNICEF reports also recognize families as integral to the learning ecosystem. Within a QMSS, parental involvement is typically measured through surveys, event participation rates, and home-learning support indicators.

Following the PRISMA-based systematic literature review, a total of 50 peer-reviewed studies and policy reports were selected for in-depth analysis. These studies, spanning various educational contexts and regions, were carefully coded and thematically categorized under six pre-identified core components of quality education: (1) curriculum, (2) teaching, (3) learners, (4) leadership, (5) resources, and (6) parental involvement.

During the data extraction phase, relevant content from each study was tagged to one or more thematic codes based on conceptual relevance. For instance, discussions related to instructional design, learning outcomes, and curriculum revisions were categorized under "Curriculum"; content focusing on teacher training, pedagogical practices, and professional development was coded under "Teaching"; while studies addressing health, attendance, student motivation, and psychosocial factors were grouped under "Learners."

Thematic synthesis was then employed to identify converging patterns, recurring subthemes, and key insights across the dataset. For each component, the analysis revealed critical success factors, common challenges, and practical strategies highlighted in the literature. For example, under the "Teaching" theme, a consistent pattern emerged emphasizing the importance of formative assessment, teacher mentoring, and learner-centered methodologies. Similarly, the "Leadership" category revealed strong evidence on the value of instructional leadership, strategic planning, and data-informed decision-making.

This synthesis not only allowed for a structured comparison across different studies but also illuminated how these components interact and reinforce each other within an integrated Quality Management Support System (QMSS). The results provide a nuanced understanding of the structural, pedagogical, and contextual elements necessary for sustaining quality education in diverse educational environments.

In summary, the thematic analysis provided a robust evidence base to inform both theoretical understanding and practical implementation of QMSS-aligned education reforms. It reinforces the argument that high-quality education is not the product of isolated improvements, but rather of synergistic, system-level coordination across all six pillars.

Table 1

Summary of Key Findings by Component

Component	Key Themes Identified	Illustrative Sources
Quality Curriculum	Coherence, relevance, alignment with local needs, periodic review	Steiner (2021); Mduwile & Goswami (2024)
Quality Teaching	Pedagogical skills, child-centred practices, professional development	Mincu (2015); UNICEF, 2000
Quality Learners	Health, nutrition, motivation, home learning environment	UNICEF 2000
Quality Leadership	Instructional leadership, distributed leadership, data use	Leithwood et al. (2008); Benavides & Trujillo (2025)
Quality Resources	Infrastructure, instructional materials, staff adequacy	Rahim (2018)
Parental Involvement	Home support, communication, parent–school collaboration	Fan & Chen (2001); Musengamana (2023)

This structured synthesis confirms that quality in education is multifaceted and deeply interdependent. The reviewed literature reinforces the need for a systems-based approach, such as QMSS, to ensure that each component is effectively monitored, resourced, and improved upon.

This document presents a systematic thematic analysis of the six core components of quality education under the Quality Management Support System (QMSS). Each theme is described with its core concepts, theoretical foundation, key supporting studies, and implications for implementation within a QMSS framework.

Table 2

Thematic Analysis of Core Components of Quality Education within QMSS

Key Theme	Core Concepts	Theoretical Basis	Key Authors/Studies	QMSS Implications
Rigorous, Relevant Curriculum	Aligned to national standards; includes life skills; periodically reviewed; context-responsive	Tyler's Objectives Model; 21st Century Learning Framework	Steiner (2021); Mduwile & Goswami (2024); Uhl (2023)	Curriculum review cycles; integration with assessments and teacher training
Skilled, Reflective Teachers	Learner-centered pedagogy; formative assessment; professional development; mentoring	Constructivist Learning Theory; Pedagogical Content Knowledge	Mincu (2015); Hoge (2003); Pohekar (2018); Saloviita (2020)	In-service training, coaching, evaluations to improve teaching quality
Learner Health, Motivation, Readiness	Nutrition, emotional support, school readiness, attendance; family support at home	Human Capital Theory; Ecological Systems Theory	Haseena & Ajims (2015); Mbelle (2008); Benson (1977)	Health services integration; readiness assessments; support for home environments

Key Theme	Core Concepts	Theoretical Basis	Key Authors/Studies	QMSS Implications
Visionary School Leadership	Instructional leadership; shared vision; capacity building; use of data in decision-making	Transformational Leadership Theory	Leithwood et al. (2008); Mukhopadhyay (2014); Khaki (2006)	Leadership development programs; data use for monitoring and planning
Adequate Physical & Instructional Resources	Infrastructure, textbooks, ICT tools; equitable distribution; strategic resource planning	Input–Process–Output (IPO) Model	Rahim (2018); Agnihotri (2017)	Resource audits; equity monitoring; ICT integration
Active Family–School Partnerships	Parental involvement at home/school; communication; participation in governance	Epstein's Framework of Six Types of Involvement	Fan & Chen (2001); Musengamana (2023); Epstein (1995); Hastuti et al. (2020)	Parent–teacher meetings, surveys, learning workshops; co-decision making

The thematic synthesis of 50 peer-reviewed studies and policy documents confirms that high-quality education is a multidimensional construct sustained through the interconnection of six core components: curriculum, teaching, learners, leadership, resources, and parental involvement. Each component plays a distinct yet interdependent role in fostering student learning, institutional effectiveness, and systemic resilience.

The analysis revealed that a coherent and context-responsive curriculum, aligned with learning outcomes and periodically reviewed, is foundational to educational quality. Equally important is quality teaching, characterized by learner-centered pedagogy, formative assessment, and ongoing professional development. The readiness of quality learners—nurtured through health, nutrition, motivation, and family support—was consistently linked with improved educational outcomes.

Instructional and visionary leadership emerged as a critical driver of school improvement, especially when it is grounded in data use and collaborative capacity-building. Adequate physical, instructional, and financial resources, strategically deployed, were shown to have a direct impact on learning conditions and student achievement. Finally, active parental involvement, supported by effective communication and participatory school governance, enhances learners' academic engagement and performance.

These findings confirm that improvements in one component are amplified when accompanied by progress in others—reinforcing the value of a systems-thinking approach. Within a Quality Management Support System (QMSS), the institutionalization of these interrelated elements through monitoring, feedback, and adaptive planning mechanisms leads to sustained educational excellence and equity.

In conclusion, this systematic review underscores that quality education cannot be achieved through fragmented or isolated interventions. Rather, it requires a synergistic, system-level coordination where all six components—curriculum, teaching, learners, leadership, resources, and parental involvement—are continuously strengthened, aligned, and monitored within a coherent QMSS framework.

Policymakers, school leaders, and educational practitioners must recognize the interconnectedness of these domains and commit to building institutional cultures of collaboration, accountability, and evidence-based improvement. The implementation of QMSS not only facilitates quality assurance but also nurtures a dynamic environment where innovation, inclusion, and equity thrive—laying a robust foundation for the holistic development of learners in diverse educational contexts.

Integration with Global Education Standards

Our findings align closely with international education goals. SDG4 emphasizes "free, equitable and quality primary and secondary education" for all, which inherently depends on the components identified here. For example, SDG target 4.1 calls for relevant learning outcomes – requiring both a strong curriculum and effective teaching. UNICEF's framework also echoes these dimensions: its Education Quality Framework identifies five pillars including learners (healthy, supported students), environments (safe, resourced), content (relevant curriculum), process (pedagogy and assessment), and outcomes. The components we synthesized map onto these: "quality curriculum" meets content; "quality teaching" and "leadership" fall under process and system; "resources" link to environments; and "learners" and "parental involvement" connect to learners and community support. In practice, many countries use UNICEF's or UNESCO's quality indicators (e.g. qualified teacher rates, curriculum standards compliance, parental involvement indices) to monitor progress. Our review confirms the validity of these global standards: across studies, they appear as critical factors in real-world settings.

Implications for Policy and Practice

Several implications emerge for policymakers and educators. First, quality initiatives should be holistic. For instance, improving teacher training alone may not boost learning if the curriculum is outdated or classrooms lack materials. A QMSS approach implies coordinated action: an education authority might simultaneously revise curriculum standards, invest in teacher professional development, upgrade infrastructure, and engage parents through community outreach. Second, accountability systems should include measures of all components. Current accountability often focuses on test scores, but quality management needs broader metrics (e.g. teacher effectiveness, leadership evaluation, resource audits, and parental involvement levels). Third, leadership development should be prioritized. Given leaders' outsized impact, training principals in instructional leadership and data use can yield system-wide improvements. Fourth, equity must be central: many findings indicate that disadvantaged students benefit most when quality components are in place. Thus, resource allocation and support programs should target under-resourced schools to raise baseline quality. Finally, engaging parents as partners – through simple actions like involving them in school decisions or providing guidance on home learning – can amplify gains. Mishra (2023) examines the implementation of digital academic operations in Nepal, highlighting both the opportunities and challenges faced in integrating technology within higher education systems. In a subsequent study, Mishra (2024) explores how emerging technologies and dynamic management strategies foster innovation and adaptability in navigating complex global business environments.

This review uncovers both strengths and gaps in the literature. While there is ample evidence on each component individually, integrated analyses are rarer. Few studies explicitly examine how these elements interact within a QMSS or similar framework. For example, some research discusses how school leadership supports teacher professional development, but more empirical work is needed on multi-component interventions. Additionally, most studies originate from single countries or regions; comparative or cross-national studies on comprehensive quality models are limited. We also note a lack of quantitative models linking all components – a task for future research (e.g. structural equation modeling of an integrated

quality framework). By highlighting these gaps, this review paves the way for future work on systems-based education reform.

Conclusion

This systematic review affirms that delivering quality education is a complex, interdependent process that must be guided by a coherent, system-based approach embodied here as the Quality Management Support System (QMSS). Drawing on evidence from 50 peer-reviewed studies and international frameworks such as SDG4 and UNICEF's Education Quality Framework, the review identifies six core, interconnected pillars essential to educational success: a rigorous and relevant curriculum, high-quality teaching, motivated and supported learners, visionary school leadership, adequate educational resources, and active parental engagement.

Each component plays a vital role, but it is their integration—rather than isolated reform—that ensures sustainable educational improvement. The review demonstrates that high-impact outcomes are most achievable when these components are coordinated and mutually reinforcing. For example, effective teaching practices are amplified when aligned with an inclusive, regularly updated curriculum and supported by strong leadership and professional development. Likewise, learner motivation and achievement flourish in well-resourced schools with active family-school partnerships and health support systems in place.

The QMSS framework provides a viable path forward by institutionalizing continuous monitoring, stakeholder feedback, and data-driven improvement processes across all six domains. However, the review also reveals gaps in existing literature—particularly the need for more empirical research that tests integrated QMSS models across diverse contexts.

In conclusion, achieving educational quality at scale requires more than piecemeal interventions. It demands system-level thinking, collaborative leadership, and a commitment to equity and inclusivity. By embedding QMSS principles into educational planning and policy, stakeholders can transform schools into dynamic learning environments capable of adapting to the evolving needs of learners and society.

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