

5S IMPROVEMENT PRINCIPLES AND CONTINUOUS IMPROVEMENT IN KAIZEN IN EDUCATIONAL INSTITUTIONS

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Abstract

The implementation of 5S and Kaizen principles in the school environment is one effort to create a culture of discipline, cleanliness, orderliness, and continuous improvement orientation. The 5S principles consisting of Seiri (Sorting), Seiton (Organizing), Seiso (Cleaning), Seiketsu (Maintenance/Standardization), and Shitsuke (Diligence/Discipline) can be applied in the management of classrooms, libraries, laboratories, and the school environment in general in order to create a comfortable and conducive learning atmosphere. Meanwhile, Kaizen emphasizes the importance of continuous improvement involving all school members, including teachers, students, and educational staff, in improving the quality of learning and school governance. This paper aims to explain the implementation of 5S and Kaizen principles in the school environment and their impact on discipline, cleanliness, and the effectiveness of teaching and learning activities. The method used in writing this paper is a literature study by collecting various sources from books, journals, and relevant scientific articles. The discussion results show that the implementation of 5S is able to increase students' awareness of the importance of maintaining cleanliness and neatness in the school environment, while Kaizen encourages the creation of a culture of evaluation and continuous improvement in the educational process. Thus, the implementation of 5S and Kaizen principles can support the creation of a more comfortable, productive, and high-quality school environment.

Keywords : 5S, Kaizen, school environment, discipline, continuous improvement.

1. INTRODUCTION

Educational quality assurance management is a systematic process to ensure that all educational activities are carried out according to standards and continuously improve in quality. In the school context, quality assurance is not only related to student learning outcomes, but also to work culture, administrative governance, and public services in the field of education. One quality management approach that can be implemented is the 5S and Kaizen principles. This concept developed in Japan and is widely practiced in the production system known through Toyota Motor Corporation. Although it was initially used in the industrial world, these principles are highly relevant for implementation in educational institutions because they emphasize orderliness, efficiency, discipline, and continuous improvement. As educational institutions, schools need a professional work culture, orderly administration, and service-oriented practices. This is because the quality of school performance will determine the quality of students' education. Therefore, the implementation of 5S and Kaizen becomes a relevant strategy in building an effective and sustainable educational quality assurance system.

2. LITERATURE REVIEW

a. The Concept of Educational Quality Management

Educational quality management is a planned effort to improve the quality of educational processes and outcomes through planning, implementation, evaluation, and continuous improvement. Quality assurance management is one of the important aspects in improving the quality of educational institutions. In the era of globalization and increasingly intense competition, educational institutions are required to be able to produce graduates who are qualified, competent, and aligned with the needs of the times. Therefore, the implementation of

an effective quality assurance system becomes a necessity. According to Sallis, quality in education is not only seen from the final results, but also from the processes that take place continuously (Sallis, 2012: 29). Thus, quality assurance management functions as a system that ensures all educational components operate according to the established standards. According to W. Edwards Deming, quality must be built through a continuous improvement cycle (Plan-Do-Check-Act). This principle is highly relevant to the Kaizen approach in the field of education.

b. The 5S Concept

5S is a workplace organization method originating from Japan and used to improve efficiency and work quality through workplace environment management. Siswanto states that the 5S Method is used to create an organized, clean, and efficient work environment. (Siswanto, 2025:120). The 5S concept consists of five basic principles of workplace environment management, namely :

1) Seiri (Sort) – Sorting

Seiri means sorting necessary and unnecessary items. Seiri emphasizes the separation between necessary and unnecessary items in the workplace. (Siswanto, 2025: 121). Seiri is based on the principle of concise workplace environment management. Therefore, to ensure the implementation of this principle, we need to separate what is needed from what is not needed. The implementation of the Seiri principle in schools can be carried out through:

- a) Sorting active archives and inactive archives.
- b) Reducing physical documents that have already been digitized.

2) Seiton (Set in Order) – Arrangement

Seiton is the arrangement of items so they are easy to find and use. Thus, items can be easily found and used. Siswanto explains that Seiton aims to organize equipment systematically so that it is easily accessible” (Siswanto, 2025: 122). Examples include :

- a) Organizing ASN personnel documents based on categories.
- b) Organizing classrooms and administration offices systematically.

3) Seiso – Cleaning

Seiso means maintaining workplace cleanliness. Seiso is carried out by cleaning the work area regularly to prevent damage and product defects (Siswanto, 2025: 123). Examples include the Friday clean-up program activities and monitoring the cleanliness of the school’s public facilities.

4) Seiketsu – Standardization

Seiketsu is the standardization of the previous three steps, namely establishing standards so that the first 3S are carried out consistently. Seiketsu functions to maintain an organized and clean working condition through consistent standards (Siswanto, 2025: ±124). Examples of its activities include SOPs for school administration management, public service standards in public schools, and others.

5) Shitsuke – Discipline

Shitsuke is the habituation of discipline in implementing 5S. Shitsuke emphasizes the formation of a culture of discipline so that 5S becomes a work habit (Siswanto, 2025: 125). In the Shitsuke principle, the work environment is expected to be able to build a culture of discipline and good habits. Therefore, the indicators of the success of this principle can be seen from the proper implementation of the previous four principles. Examples include the time discipline of civil servants in providing services, arriving at work on time, and performance evaluations based on e-performance systems.

3. RESEARCH METHODS

This study uses a descriptive qualitative approach with a literature study method (library research). Data were obtained from various scientific sources such as books, national and international journals, and documents related to the concept of 5S, Kaizen, implementation in educational institutions, and education quality assurance. Data analysis was carried out using content analysis techniques to gain an in-depth understanding of the role of 5S and Kaizen in improving the quality of education.

4. RESULTS AND DISCUSSION

4.1. 5S (SEIRI, SEITON, SEISO, SHEIKETSU, and SHITSUKE)

Objectives of 5S Implementation

Siswanto in the book *Quality Control Techniques* explains that the main objectives of 5S are: (1) improving work efficiency, (2) reducing waste, (3) improving product quality, and (4) creating a safe work environment. The implementation of 5S aims to increase productivity and quality through work environment control (Siswanto, 2025:126).

The Role of 5S in Quality Control

5S serves as the foundation in the quality control system because (1) it supports standard operating procedures (SOP), (2) reduces work errors, and (3) makes process monitoring easier. This is in line with the concept that quality control includes supervising processes to ensure they comply with standards. 5S is an important basis in the implementation of quality control and continuous improvement. (Siswanto, 2025: 127).

5S as a Work Culture

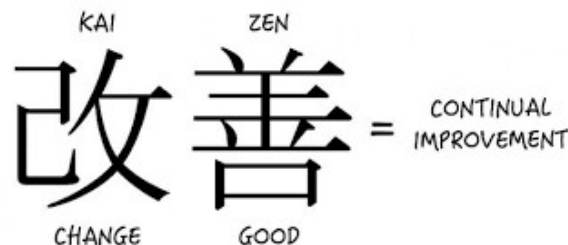
5S is not only a technique, but also an organizational culture. Therefore, the success of 5S greatly depends on the commitment and discipline of all members of the organization (Siswanto, 2025: 128). This is because work culture is formed through behaviors that become habits and then turn into a culture that is embedded in the work environment.

4.2. KAIZEN

The Concept of Kaizen

a) Kaizen as Continuous Improvement

Kai means "change" and Zen means "become good." Therefore, Kaizen means changing for the better in order to get closer to the correct condition. This has not been defined in this way in the Western world—the concept of a "correct state" (Agus Wibowo, 16).



There is far more meaning behind Kanji than we can articulate outside the Japanese language itself; however, part of that meaning is that we should. Kaizen means continuous improvement but with a deeper meaning than just "improvement": striving to bring everything into a more "correct" state. It is more of a philosophy than a methodology and therefore serves as a common thread that can be applied across any business functions and processes. The changes made do not have to be large, as long as they are improvements. With the mindset of making everything better than its current or past state, we can apply this concept at both the individual (personal) level and the surrounding environment. In practice, Kaizen is not only focused on results, but also on the process that is carried out continuously. Managers outside Japan seem to understand the concept of Kaizen as "continuous improvement" (Wibowo, 2023: 18). However, the concept of Kaizen is broader than ordinary improvement because it emphasizes the involvement of all individuals within the organization.

b) The Difference Between Kaizen and Improvement

In 1984, Toyota Motor Corporation opened the NUMMI (New United Motor Manufacturing, Inc.) plant in Fremont, California, through a partnership with General Motors. Workers assigned to work at the NUMMI plant went to Japan to participate in on-the-job training at Toyota factories to learn Kaizen. When they returned to the United States, they continued using the word "Kaizen" because they could not find an English word that articulates the concept. The closest English word to describe Kaizen is "Improvement." However, as we know, the meaning of improvement is using monetary investment to make things better, whereas Kaizen, according to Taiichi Ohno, is simply the process of applying each individual's ideas to make things better. In other words, "Improvement" is fixing our goods and materials, and "Kaizen" is improving individual actions. (Agus Wibowo, 2023: 18)

Thus, this philosophy emphasizes that every individual in the organization has the responsibility to carry out continuous small improvements. In education, Kaizen can be:

- a) Teachers' reflection on learning every semester.
- b) Evaluation based on education report cards.
- c) Continuous development of teachers' competencies.

c). Characteristics of Kaizen

“Improvement... uses monetary investment... whereas Kaizen... is the application of ideas from each individual” (Wibowo, 2023: 25). Kaizen has several main characteristics, namely :

1. Continuous improvement
2. Based on the participation of all employees
3. Low cost improvement
4. Process-oriented

d) Kaizen as a Work Culture

Kaizen is not only a method, but an organizational culture that must be built systematically. Wibowo in his book explains that Kaizen as a work culture does not appear on its own but through a process carried out continuously. The following is his statement: “Such a culture does not emerge on its own; it is the result of decisions... leadership” (Wibowo, 2023: 25). Thus, the success of Kaizen is highly dependent on the leadership’s commitment in managing their respective institutions.

e) The Role of Management in Kaizen

Management plays an important role in the implementation of Kaizen, especially in building synergy between leaders and employees. “To create a strong marriage between top-down management and bottom-up...” (Wibowo, 2023: 138). In addition, managers must also be directly involved in the work process. “Top managers must educate and train... by being on the shop floor together with them” (Wibowo, 2023: 138).

4.3 Relationship between Kaizen and 5S

Kaizen and 5S have a very close relationship in improving organizational quality. Kaizen is a philosophy of continuous improvement, while 5S is an operational step in realizing that improvement. Conceptually, Kaizen is a philosophy/management of improvement, whereas 5S is an implementation technique in the field. Thus, the application of 5S can be an initial step in building a Kaizen culture within an organization. Based on the theoretical review above, it can be concluded that: (1) Kaizen encourages continuous improvement, (2) 5S creates a conducive work environment, (3) both contribute to improving performance quality. Therefore, the simultaneous application of Kaizen and 5S will increase organizational effectiveness and individual performance.

4.4 Implementation of 5S and Kaizen in Schools

a) Implementation of 5S in Administrative Management

1. Digitization of personnel records.
2. Arrangement of BOS documents and financial reports.
3. Management of a comfortable and orderly service room.

With 5S, administrative services become faster and more transparent.

b) Implementation of 5S in the Learning Process such as:

1. Arrangement of teaching tools according to the curriculum.
2. Sorting relevant learning media.
3. Standardization of lesson plans (RPP) or teaching modules.

Teachers are required to be professional, so 5S helps create order in learning.

c) Implementation of Kaizen in Work Culture.

1. Routine performance evaluation through academic supervision.
2. Training and workshops for competency improvement.
3. Reflective discussions in MGMP (Subject Teacher Working Group).

Small improvements, such as improving teaching methods or enhancing communication with parents, if done continuously will result in major changes.

4.5) The Impact of 5S Implementation on Education Quality Assurance

The implementation of 5S and Kaizen has an impact on increasing work efficiency, speeding up administrative services, improving students’ learning comfort, and building a sustainable quality culture. Thus, schools not only meet national education standards but also continue to develop progressively.

Implementation of 5S in the Managerial Dimension of Schools

The 5S concept is not only about physical cleanliness, but also about system order and work culture. In educational institutions, its implementation can be analyzed in three dimensions: administration, academics, and organizational culture.

1. Administrative Dimension

Administrative governance is one of the main indicators of education service quality, especially in public schools that have civil servants (ASN). Therefore, the implementation of 5S can be a very important factor to apply. The following are several activities that can be carried out in 5S-based administrative management.

- 1) Sorting important documents such as decrees (SK), personnel archives, BOS reports, and curriculum documents. Old archives can be digitized so they do not accumulate physically.
- 2) Providing codes and labels for documents and implementing a storage system based on year or document type.
- 3) Not only cleaning rooms, but also “cleaning” the administrative system from inefficient procedures.
- 4) Preparing SOPs for administrative services, for example service time standards for issuing certificates.
- 5) Developing the habit of orderly administration and punctual service delivery.

With the implementation of 5S, school bureaucracy becomes more effective, transparent, and accountable, thus making it easier for all school members to carry out school operations. Although 5S and Kaizen are effective, challenges in implementing 5S principles include (1) resistance to change; (2) old work culture that is difficult to change; (3) lack of continuous monitoring. Therefore, commitment from school leadership and policy support from the education office are needed.

2. Academic Dimension

In the learning process, 5S can improve the quality of classroom management and teacher professionalism. For example:

- 1) Teachers sort teaching materials that are relevant to the latest curriculum (Seiri).
- 2) Learning media are arranged neatly and are easy to access (Seiton).
- 3) The classroom is clean and comfortable for learning (Seiso).
- 4) Learning standards are developed through uniform teaching modules (Seiketsu).
- 5) Teachers and students are disciplined in carrying out classroom rules (Shitsuke).

This implementation supports a systematic quality approach in accordance with the principle of continuous improvement proposed by W. Edwards Deming.

3. Dimensions of Organizational Culture

5S can shape a positive work culture. If all school members are accustomed to orderliness and discipline, then quality is no longer a program, but becomes a habit. This 5S culture will have an impact on: increased sense of responsibility, the development of a collaborative work environment, and increased satisfaction of students and parents.

B. Implementation of Kaizen in the Education Quality Assurance System

Kaizen means small, continuous improvements. This philosophy was widely introduced by Masaaki Imai as a strategy for improving organizational quality. In educational institutions, Kaizen can be applied through the following mechanisms:

1. Teacher-Based Reflection Improvement

At the end of each semester, teachers reflect on what has been successful in learning and what needs to be improved. Small improvements such as changing discussion methods or adjusting assessments can significantly improve learning outcomes if carried out continuously.

2. Periodic Performance Evaluation

All educational institutions must have a performance appraisal system. Because performance appraisal is an effort for educational institutions to maintain the standardization of planning, processes, and evaluation of education. In performance evaluation, the Kaizen principle can be applied by:

- 1) Monitoring performance regularly.
- 2) Providing constructive feedback.
- 3) Setting gradual improvement targets.

3. Improvement of Public Service Systems

As a government institution, schools have a public service function. The application of Kaizen can be in the form of :

- 1) Reducing administrative service waiting times.
- 2) Improving communication systems with parents.
- 3) Simplifying procedures that are too bureaucratic.

Small but consistent changes will improve the school's image as a professional institution.

4. Integration with the Internal Quality Assurance System (SPMI)

In the quality assurance system, there is a cycle of determination, implementation, evaluation, control, improvement. Kaizen is very much in line with this cycle because it emphasizes continuous improvement. Thus, Kaizen is not merely a Japanese management theory, but becomes part of the national education quality improvement strategy.

C. Synergy of 5S and Kaizen in School Transformation.

The 5S concept builds a foundation of orderly and disciplined culture. Kaizen ensures that this culture continues to develop. If both are implemented simultaneously, it will result in work efficiency, increased teacher professionalism, a more conducive learning environment, and systematically improved education quality. Schools no longer work reactively, but proactively in improving themselves.

D. Challenges and Implementation Strategies

The challenges referred to may include resistance to change from long-term employees, lack of leadership commitment, and minimal continuous evaluation. Strategies to address them include socialization and training on quality culture, exemplary leadership by the principal, and strengthening data-based monitoring and evaluation.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The 5S and Kaizen concepts are quality management approaches that are relevant to be applied in educational institutions. The 5S concept builds orderliness and discipline, while Kaizen ensures continuous improvement. If implemented consistently, both can strengthen the education quality assurance system in a systematic and sustainable manner. The application of 5S and Kaizen in educational institutions is not only about cleanliness or efficiency, but about building a sustainable quality culture. In the context of educational institutions, these two concepts are highly relevant for improving professionalism, public service, and the quality of learning.

5.2 Recommendations

1. Schools need to integrate the 5S and Kaizen concepts into the school quality management system. These concepts should not only be additional activities but should be included in planning, implementation, evaluation, and follow-up of school programs. In this way, improvement is not incidental but becomes part of the work culture.
2. The implementation of Kaizen (continuous improvement) can be realized by encouraging all members of the school community, such as teachers, education staff, and students, to actively provide input on the learning process and educational services.
3. Schools or other educational institutions can provide regular training and socialization so that all members of the school community understand the meaning and practice of 5S and Kaizen correctly. With a shared understanding, implementation will be easier and will not only be understood as a theoretical concept, but also as part of daily habits.

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