APPLYING 5S METHODOLOGY IN TRAINING MANAGEMENT AT THU DAU MOT UNIVERSITY

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Article Info	Abstract
	The 5S approach is one of the strategies that can assist organizations, corporations, and educational institutions boost production and working efficiency. The Training Department - Thu Dau Mot University has used and implemented this strategy to create a clean and tidy working environment in which personnel can handle professional work and systematic archival records. This paper presents the theoretical basis of the 5S method, the application process, and the results of implementing this method in the management of training at Thu Dau Mot University. The findings show that applying 5S principles, implementing steps of PDCD quality cycle at the Training Department increase work management efficiency without spending too much money. The study implies that If 5S is adopted and reproduced in all functional departments and specialized units, it will generate a high-quality cultural environment that will strengthen the university's market position.

1. Introduction

5S is a productivity and efficiency improvement program that originated in Japan in 1960, the success of this method helped it become popular in many countries around the world (Vo Thu Ha,Nguyen Thi Thanh, 2022) (Hajime Suzuki, 2006). In Vietnam, this method is commonly applied in administrative agencies and manufacturing units (Dam Manh Dat, 2022), hospitals and many educational institutions (Bui Thi Hao, 2020). Realizing the 5S method's effectiveness, Thu Dau Mot University (TDMU) has applied the method to training management. Because training management is a crucial connection in enhancing the quality of TDMU especially in the context that the Training Department's responsibility to maintain several academic data related to students such as: transcript, qualification, student profile, registration, absences, study suspension…, and profiles from faculties, institutes, training programs such as: curriculum program, course, syllabus, subjects, curriculum improvement, teaching portfolio... These records shall be kept for a period of 5 years according to the accreditation cycle of the standards for assessing the quality of training programs of higher education levels, as mentioned in Minister of Education and Training Circular 04/2016/TT-BGDT dated 14/3/2016, or for a longer period depending on the type of record stored. 5S is an improvement method that is simple, easy to understand, easy to implement and low cost. 5S helps save time to limit errors in work, help employees solve work quickly, effectively and promote creativity and continuous work improvement.

Based on the practical implementation at the Training Department - Thu Dau Mot University, the article presents the theoretical basis of the 5S method, the application process and the results achieved from the application of the method to the management of training at the University.

2. The 5S Methodology

The 5S method originated in Japan in the 1960s to support Safety, Quality, Performance, and the Environment. Beginning with the publication of the first book on 5S in 1986, 5S was immediately promoted and adopted by numerous enterprises (Hajime Suzuki, 2006). In 1998, the International Organization for Standardization (ISO) published ISO 14001 for environmental management, which refers to the application of the 5S method, 5S has become a popular management method in companies around the world (The Directorate for Standards Metrology and Quality, 2020). Based on the philosophy that people are at the centre of all development (Uyen Chi, 2020), (Dam Manh Dat, 2022), the 5S methodology has been applied as a foundation for the successful application of a quality management system, bringing many positive changes to many units (Do Tien Long, 2010), (Nguyen Duy Thanh et al., 2015).

Figure 1. 5 Pillars of 5S

TABLE 1. Summary of contents 5s. (The Directorate for Standards Metrology and Quality, 2020)

	Japanese	English	Vietnamese	Meaning
S1	Seiri	Sort	Sàng lọc	Review, categorize, select, and eliminate unnecessary things in the workplace
S2	Seiton	Systematize/ Stabilize	Sắp xếp	Arrange items to be convenient to use
S3	Seiso	Sweep/Shine	Sạch sẽ	Maintain hygiene and cleanliness to ensure the workplace environment
S4	Seiketsu	Sanitize/ Standardize	Săn sóc	Systematically maintain and standardize the first 3S
S5	Shitsuke	Self-discipline/ Sustain	Sẵn sàng	Implement the above S Self-discipline

The 5S method is easy to understand, simple, easy to implement, easy to apply in organizations of all sizes and sectors of operation (Uyen Chi, 2020). In particular, this method helps to optimize the following benefits:

• Create a cleaner, tidy, professional, and safer working environment.

• Improve productivity efficiency, limit errors, save time, avoid waste, improve working morale.

• Help members of the organization create good habits, change mindset, good culture in the working environment, create pride for all staffs in the organization about a quality and positive working environment.

• Raise the sense of responsibility, promote innovation and creativity for the work of members of the organization.

• Limit risks and risk factors at work.

• The investment cost is not large.

3. Research methodology

The study focuses on the literature review method, which combines the processes of 5S implementation according to the PDCD (Plan - Do - Check - Act) cycle, which includes the three main phases mentioned following. (The Directorate for Standards Metrology and Quality, 2020):

Phase 1: Prepare and launch 5S (PLAN)

• Establishment of steering committees and related committees: The steering committee usually consists of the unit's leadership board. The steering committee is in charge of creating an overall implementation strategy to guarantee everyone's participation in a consistent system and working toward 5S goals.

• Assign staff to the tasks and responsibilities of all positions in the unit to ensure that everyone is in charge of 5S.

• Train key responsible persons and members to lead 5S implementation to ensure that everyone knows the 5S implementation method and the importance of their involvement in the model's success.

• The official announcement of the 5S implementation program: The leadership should explain the 5S program's goals and action plans to everyone, participate directly in those activities with everyone, and demonstrate their commitment to adopting 5S. Conduct propaganda, promote... and organize 5S basic principles training for everyone.

• General cleaning of the entire unit, the main tasks performed on general cleaning day are performing Seiri, classifying necessary and unnecessary things in the workplace, and removing unnecessary things.

Phase 2: Implementation of SEIRI, SEITON, SEISO, SEIKETSU, SHITSUKE (DO)

• Seiri (S1): The important thing in implementing Seiri is to distinguish between what is necessary and what is unnecessary in the workplace, in order to carry out this step properly, it is necessary to establish screening standards, and classification. The following questions are given for screening and classification: What is needed? What level is needed? How often to use? Or what things are commonly used in this area? What things are commonly used in that area? What "can" be used? Things that do not need to be used.

• Seiton (S2): This step is done after Seiri with the following core principle: "Arrange all the remaining things after Seiri in an orderly, convenient order." Alternatively, you can use the basic idea of "easy to see, easy to get, easy to do, easy to check, and easy to return."

• Seiso (S3): Maintain hygiene and cleanliness in the workplace to take care of the environment and aesthetics. Seiso is also used as a re-inspection phase to uncover irregularities, risk factors, and nonconformities in the cleaning and cleaning process. To do Seiso efficiently, the following must be considered: What should be cleaned? How should this be cleaned? What exactly are hygiene standards and criteria? Seiso must be implemented on a regular basis; there is no need for a calendar or a fresh strategy to ensure that the environment is always clean and everything is always ready.

• Seiketsu (S4): Maintain and consistently standardize the first 3S using regulations, methods, work instructions, and forms on a regular basis in order to implement, maintain, and continually improve.

• Shitsuke (S5): It means giving people the habit of complying with workplace regulations and voluntarily participating in 5S activities. When everyone practices seiri, seiton, seiso, and seiketsu on a regular basis, they will build habits and gradually become an intrinsic part of their daily job, gaining self-discipline and self-adherence to the 5S.

Phase 3: 5S self-examination and periodic assessment and improvement (CHECK – ACT)

5S activities need to be maintained regularly and enhanced. Assessment activities are essential to encourage the continuation and improvement of these activities. The evaluation includes the following components:

• Plan to evaluate and encourage 5S activities.

• Develop evaluation and incentive criteria.

• After the assessment is completed, make reports on analysis, evaluation, synthesis of results, inconsistencies, points to be overcome and improved to implement 5S more effectively.

4. Results and discussion

4.1. Practical implementation of 5S method in the Training Department at TDMU

4.1.1. Training management status in the Training Department

The training department's function and mission is to manage numerous types of training for each semester, school year, and course; monitor plan implementation; develop and manage documents that implement training regulations and rules, and handle academic records... Currently, the department manages the professional and academic records of 8 faculties/institutions and around 55 training programs, serving almost 20,000 students. The number of management records is relatively large and diverse in terms of types of records such as: transcripts, qualification, student profile, registration, absences, study suspension…..and profiles in areas of expertise such as: curriculum program, course, syllabus, subjects, curriculum improvement, teaching portfolio... from faculties, institutes, training programs. According to the Minister of Education and Training's Circular 04/2016/TT-BGDT dated 14/3/2016, these records must be preserved for a period of 5 years in accordance with the accreditation cycle of the standards for assessing the quality of training programs at higher education levels, or it can take longer depending on the type of record stored, Some records need to be stored permanently, so it is necessary to have a scientific and methodical storage and implementation process to meet the university's requirements and quality assurance work.

The department is also a unit that frequently has a lot of contact with parents, students, and lecturers with the work of supporting training activities that take place continuously with three shifts per day and six days per week, so improving working conditions and service quality is necessary to improve the department's working efficiency and the image of TDMU.

4.1.2. 5S implementation plan in the Training Department

5S is implemented in two forms: paper records and data digitization. The implementation method is approached according to the PDCD process and specifically into seven detailed steps as follows:
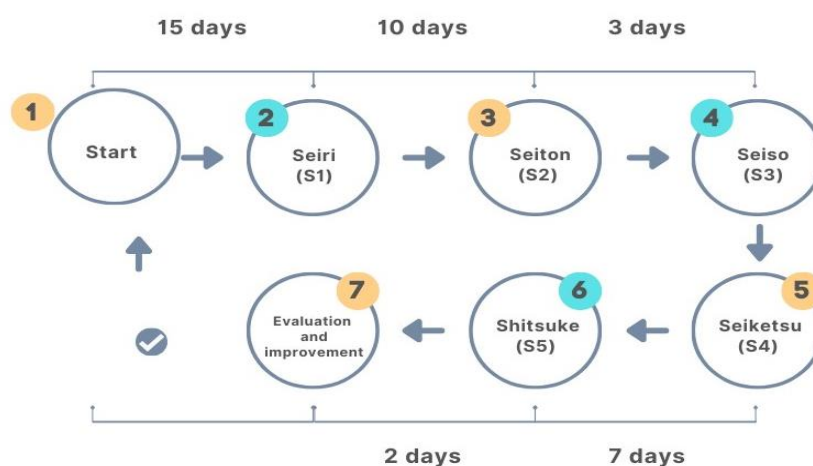

Figure 2. Steps to implement 5S at in the Training Department

Step 1: Prepare and launch 5S.

• Establishment of 5S implementation team

• Participate in the training course 5S - Platform to improve quality productivity at universities and colleges organized by Directorate for standards, metrology and quality (The Directorate for Standards Metrology and Quality, 2023)

• Analyze the status of documents and make implementation plans about the 5S program and upcoming implementation plans.

Figure 3. Participating in an online training course on 5S.

Step 2: Implement Seiri (S1)

Conduct general cleaning and review, classify, select, and remove items, equipment, and records according to the following criteria:

• Items and equipment serving office administrative work are classified into three categories: frequently used, rarely used, and not used.

• Academic and professional papers, classified according the following criteria: Not processed, processing, and processed.
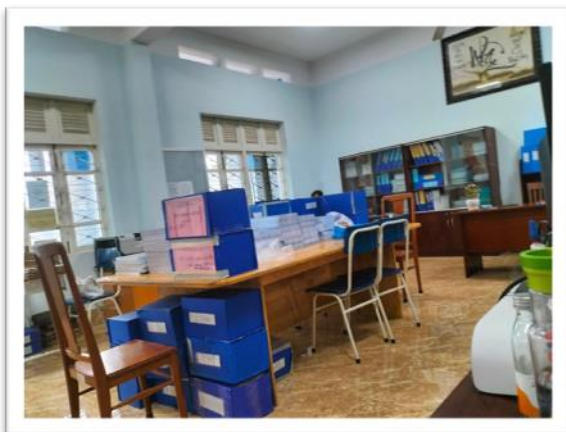
Figure 4. The process of making Seiri in the Training Department

Step 3: Implement Seiton (S2)

Arrange the types of items, equipment, and records in S1 in the following order:

• Frequently used group: Arrange one common corner for everyone to use. Printers, copiers, scanners, and FAX machines, in particular, are located in a distinct area that is convenient for everyone to use while also ensuring the safety of the working environment.

• Rarely used groups to enter separate containers labelled categorization.

• Unused items and equipment should be packaged for disposal or returned to the facilities department.

• Academic records are arranged in the following order: Faculty/Institute ➔ Training program ➔ Year ➔ Courses/Year Groups ➔ Class. Sort into folders, label with names, and use pink conventions.

• Professional profiles are listed in the following order: field ➔ Faculty/Institute ➔ Training program ➔ Years. Sort into folders, label with names, and use yellow conventions.

• Digital data is saved in the form of a Faculty/Institute folder tree ➔ classify ➔ Training program ➔ Training program ➔ semester ➔ items.

• All records need to be kept permanently: Store in folders with labels and red conventions.

Step 4: Implement Seiso (S3): Perform weekly sixth routine cleaning according to the assigned schedule.

Step 5: Implement Seiketsu (S4): Regularly remind people to do S1-S3 and continuously. At the same time, promulgate slogans of awareness of saving, environmental protection, recycling, and reuse.

Step 6: Implement Shitsuke (S5): Always maintain the implementation of 5S to create a habit of self-discipline for all members.

Step 7: Review and enhance the whole implementation process.

• Planning, evaluating, and encouraging 5S activities.

• Develop evaluation and incentive criteria.

• After the assessment is completed, make reports on analysis, evaluation, synthesis of results, inconsistencies, and points to overcome and improve in order to more effectively execute 5S.

TABLE 2. Describe the actions that need to be improved and make recommendations.

Activities needing improvement	Propose	Time	Department	Result
Professional assignment records must be classified by lecturer code.	Insert lecturer code in the file.	Implementation at the end of semester (ends of semester 1 and)	Personnel	Good
Data digitization: Visiting lecturers must categorize fields.	Classification of Faculties/Management Institutes based on each training program	End of school year	Academic Administration	Not achieved, a teaching staff code must be added.
Reserved student records have not been digitized.	Implement management software for digitalization and data input.	within 5 days after the decision	ICT	….
….		…	…	…

4.2. Results after 5S Implementation

TABLE 3. Typical results after after implementing 5S.

Before 5S Implementation	After 5S Implementation
- The records are arranged unscientifically, not convenient for users. - Handwritten stickers, unconventional, haphazardly arranged. - The printer area is still scattered, not arranged into a separate area. - Untidy stationery. - Student support documents and documents have not been conveniently arranged for Student. - The shared desk is disorganized. - There is no cleaning schedule and personnel assignment. Data storage that is not digital.	- Files are neatly and properly organized in their proper areas. - Stickers are classified based on their colour, kind, and code. - Arrange printers, fax machines, and photocopiers into one area. - Stationery organized and sorted into items. - Student assistance materials are easily positioned immediately at the entry, making them visible and accessible to students. Create QR codes to give students with online support. Transcripts are put directly on the file table. - Arrange shared desk neat, tidy and add green plants to create a green - clean - beautiful working environment. - Clean every Friday, apply stickers with the slogan "always clean," and organize everything properly. - Create data storage records and digitize management and storage system operations.

Figure 5. Sorting Professional and Coding Profiles

Figure 6. Arranging the printer area and little-used profiles overhead.

Figure 7. Arrange student support documents at the entrance to make things easier for students.
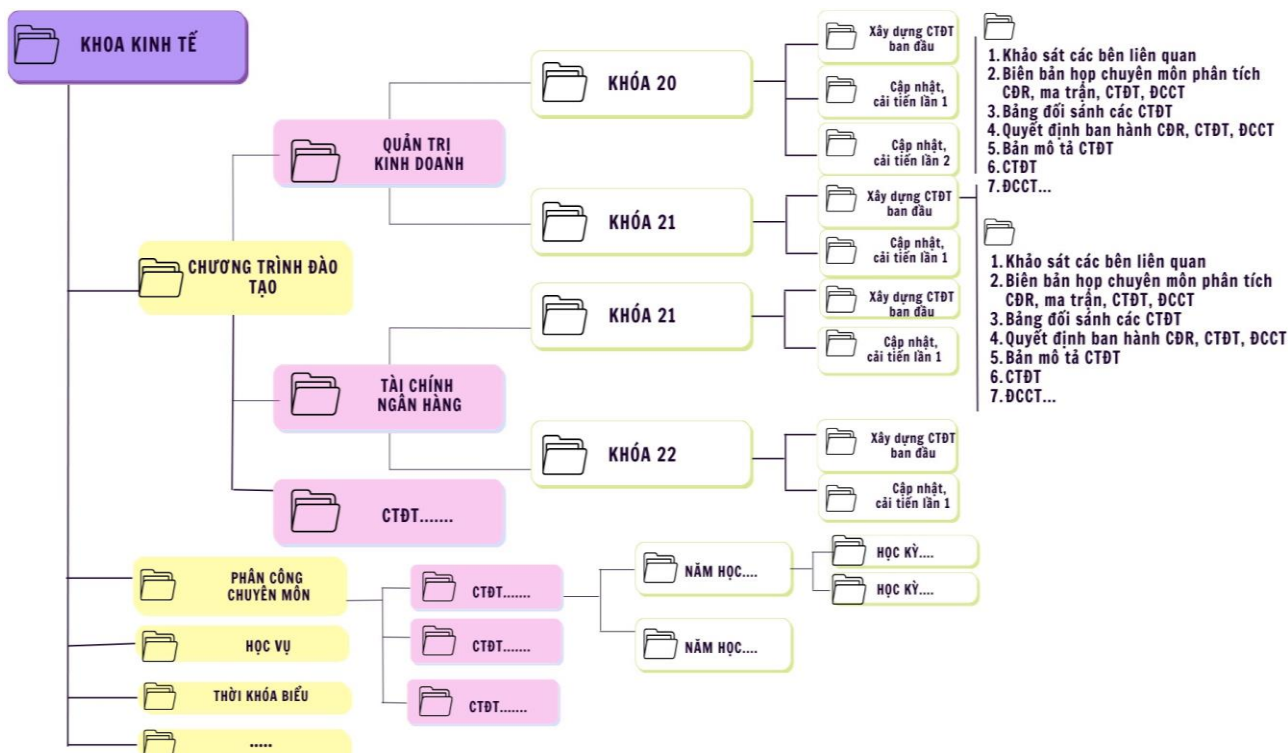

Figure 8. Tree of digitized record storage.

Figure 9. Creating a friendly working environment.

5. Conclusion

5S is a simple management method that does not cost too much but brings many benefits (Nguyen Vinh Quang, 2018). The 5S methodology is easy for everyone to start using. It does not require any technical analysis and can be implemented globally in all types of organizations, ranging from manufacturing plants to offices, small businesses to large multinational organizations — and in both private and public sectors.

Using 5S improves training department productivity while also providing a good, professional, and dynamic working atmosphere. 5S helps eliminate unnecessary items, maximizing workplace efficiency resulting in improved productivity with minimal time waste. Less time looking for unnecessary items means more time working. 5S emphasizes employee engagement by streamlining their work and allowing them to provide ideas to make effective changes in performing tasks, preserving the workspace so creates a bond between employees and the organization. If 5S is implemented and replicated in all functional departments and specialized units of TDMU, it will create a quality cultural environment in all TDMU activities.

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