

# The Influence of Internal and External Factors on the Successful Implementation of 5S Work Culture in Vocational Schools

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## Abstract:

In the sphere of education, 21st-century skills are becoming increasingly important. The ability to integrate 21st-century skill competencies with workplace cultures is another requirement for vocational institutions. Many companies and industries these days are searching for employees with positive work cultures. Consequently, there is a strong and favorable correlation between workplace culture and student achievement. In addition, there is a strong correlation between students' vocational character and the 5R work culture in vocational schools. Hermawan and Nurdin's (2023) research demonstrates that the 5S work culture assessment tool achieved good content validity and reliability (0.793). Research by Balasundaram et al. (2023), applying the 5S technique can improve customer happiness, product quality, and production efficiency. Additional research by Maulidina and Wijarnaka (2023) demonstrates that work willingness is significantly and favorably impacted by the 5-person work culture by 15.90%. These three studies, however, did not examine the variables that affect the 5S work culture's successful adoption in vocational schools. The primary methodology for the research is qualitative methods; two participants complete Google forms with written interviews and observation techniques. Inductive data analysis was used to process the acquired data. The study's findings indicate that there are both internal and external elements that affect how well 5S work cultures are implemented at vocational schools. The internal factors include 1) a Well-organized curriculum; 2) well-behaved students; and 3) workload distribution. External elements, which are as follows: 1) School Persistence; 2) Industry Support; 3) Community and Parent Participation; and 4) Work Culture Integration Into Daily Practices.

**Keywords:** 5S work culture, Vocational schools, Successful implementation, Internal factors, External factors

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## Introduction

In education, 21st-century skills are becoming a major area of concentration. The task of satisfying the needs of the modern workplace falls on education. Finding new information and evaluating it to produce new knowledge are just two of the many jobs that make up this working life (Hermawan et al., 2022). A key component in producing a high-caliber workforce in Indonesia is education. Good human resources are needed to support in these increasingly technologically advanced times (Rohim et al., 2024). According to Susanti et al. (2023), possessing competencies such as critical thinking and problem-solving, cooperation, communication, creativity, and innovation is a minimum requirement in the 21st century. The use of 21st-century learning in Indonesia is still not at its best, necessitating more careful planning for every facet of education (Safitri et al., 2023). The purpose of vocational colleges as educational establishments is to prepare graduates or skilled laborers for the workforce through their promotion and training

(Erlinawati et al., 2021). Moreover, vocational schools need to be able to match workplace culture with 21st-century abilities. This is significant because, in accordance with industry demands, vocational schools seek to educate students for entry into the workforce (Wahyudi et al., 2020). Because preparation usually needs to be taken into account while developing the work skills required for various types of work, work readiness is crucial for vocational students (Nurlaela et al., 2021). Many businesses and sectors are currently searching for employees with positive work cultures. Consequently, work culture has a favorable and substantial impact on students' performance (Abdullah, 2020). In addition, there is a strong correlation between the professional character of students in vocational schools and the 5S work culture. (Ilahi et al, 2020).

Ahkyat et al. (2019) looked at the impact of a 5S work culture on employee engagement. The study's findings indicate that work commitment is influenced by the 5S work culture. The 5S work culture among students can aid in preparing them for the workforce. They will also, naturally, find it easier to adjust to the work culture of the industrial world if they have a positive work culture. A well-known work culture is 5S (Seiri, Seiton, Seiso, Seiketsu, and Shitsuke), often referred to as 5R in Indonesia (Concise, Neat, Clean, Careful and Diligent), according to Hermawan et al. (2022). In the late 1960s, the 5S work culture idea was first formally created in Japan. Osada (1991) and Hirano (1995) proposed the main framework for putting 5S into practice. The 5S work culture can also lower accident rates, minimize superfluous materials, train employees to follow orders and discipline and enhance the quality of products produced. Rizkya et al. (2021) claim that Seiri assists in eliminating anything extraneous and leaving only what is required. Seiton establishes the numbers and locations needed for effective operations. Seiso uses inspection procedures to guarantee hygienic conditions. Seiketsu uses controllers and visual displays. Through thorough staff engagement and training, Shitsuke contributes to the sustainability of organizational endeavors. In addition to streamlining operations and cutting waste, 5S enhances worker safety.

Enhancing the efficacy of internship programs is impacted by the adoption of the 5S work culture. There is still a need to synchronize the work culture in vocational schools, as there is a lack of consistency between the work culture required in the industrial world and the supply of VET graduates (Ismara et al., 2020). The adoption of a 5S work culture in a vocational school setting can yield several advantages, including enhanced performance, increased safety in the laboratory, and reduced expenses related to asset use. Because this excellence is the outcome of a meticulous and disciplined work ethic, vocational students will have superior professional characters the more the 5S work culture is implemented (Ilahi et al., 2023). Hermawan and Nurdin's (2023) research demonstrates that the 5S work culture assessment tool achieved good content validity and reliability (0.793). Nevertheless, the elements influencing the effective adoption of a 5S work culture at vocational schools are not examined in this study. Other research by Balasundaram et al. (2023) suggests that using the 5S technique can boost production efficiency, product quality, and customer happiness. Additional research by Maulidina and Wijarnaka (2023) demonstrates that work willingness is significantly and favorably impacted by the 5-person work culture by 15.90%. These three studies, however, did not examine the variables that affect the 5S work culture's successful adoption in vocational schools. The quality of graduates from vocational institutions who are prepared for the workforce may be raised by implementing the 5S work culture. Nonetheless, there are still a number of unanswered questions about the application of the 5S work culture in vocational institutions. The dearth of studies on the elements that contribute to the effective adoption of a 5S work culture in vocational schools is one of the most notable gaps.

## Research Method

The primary method used to conduct this study was qualitative methodologies. Anggito and Setiawan (2018) define qualitative research as study conducted in a natural setting with the intention of understanding observed phenomena and employing a variety of currently used techniques. Two participants complete Google forms for written interviews as part of this qualitative method, which also uses observational techniques. Febriani et al. (2023) state that the goal of qualitative research is to analyze and comprehend the significance of many individuals or groups of persons to social or humanitarian issues. Significant work goes into this qualitative research process, including understanding the procedure by asking questions, getting specific information from participants, evaluating data inductively to identify broad themes from particular issues, and interpreting the significance of the data. The framework or format of this study report is adaptable. It is imperative that all researchers embrace an inductive research approach, emphasizing personal significance and analyzing the intricate nature of the issue.

Yusra et al. (2021) state that one of the most popular methods for gathering data for qualitative research is the interview. Interviews are a data gathering strategy that is used to get information straight from the source, according to Santika et al. (2023). Through interviews, researchers can get a variety of information from respondents in various settings and circumstances. Table 1.1 displays the interview instrument table.

Table 1.1 interview instrument table

No	Question
1.	How is the 5S work culture implemented in this vocational school?
2.	What are the internal factors that influence the success of implementing the 5S work culture in this vocational school?
3.	What are the external factors that influence the success of implementing the 5S work culture in this vocational school?

In qualitative research, observation is a fundamental method that can be used. As per Jailani (2023), observation is a method of gathering data that entails the direct scrutiny of participants and the surrounding circumstances of the studied phenomena. Qualitative observations can be carried out in settings created especially for study or in actual life situations. Through observation, researchers might witness social interactions, behaviors, and situations that are pertinent to the topic they are studying. Wani et al. (2024) define observation techniques as a method whereby researchers methodically watch and document events, behavior, or objects without altering their surroundings. The class culture at SMK Negeri 5 Surakarta was the feature that the researchers saw.

In order to complete the instruments and identify the internal and external factors for the success of implementing the 5S work culture at SMK Negeri 5 Surakarta, the Curriculum Director and the Program Manager of the Software and Game Development Department selected the participants. They were selected due to their proficiency in bolstering research data.

Careful data analysis is one of the key components in evaluating qualitative research methods, according to Rifa'i (2023) Data Analysis. It entails classifying, arranging, and analyzing the gathered data. Finding key themes, categorizing the data, coding it, and searching for connections or patterns are all part of qualitative data analysis. To fully comprehend the phenomenon being studied is the aim of data analysis. The process of compiling, evaluating, and interpreting the data is known as the data analysis step.

Researchers employed inductive data analysis when they conducted data analysis. Nugroho et al. (2023) define inductive data analysis as the process of drawing inferences from specific facts to broader conclusions.

## Result and Discussion

Following the analysis, the following things were discovered:

### Result

When examined closely, the 5S have been incorporated into the culture of vocational schools. Seiri / summarize, classify, and eliminate superfluous items. Seiton / Clean up and arrange the workspace. Seiso/Resik, ensuring that the workplace is tidy. Seiketsu / Maintain, and maintain basic, orderly, and clean circumstances in the workplace. Sitshuke / Be diligent and develop into the habit of being concise and neat in your work. This is shown by the end of the lesson in the laboratory where there is a picket line for cleaning. Every student seated in the lab is in charge of every computer. This is demonstrated by the student-led pickets, where students take responsibility for the computers they use for instruction and clean the lab after use. This demonstrates their dedication to upholding cleanliness, safety, and order in their educational setting. Table 1.2 displays the data that was collected from the written interview.

Table 1.2 Data that was collected from the written interview

No	Question	Participant 1	Participant 2
1.	How is the 5S work culture implemented in this vocational school?	Currently regularly stroll by the gate every morning	At SMK Negeri 5 Ska, the 5S work culture has been successfully adopted.
2.	What are the internal factors that influence the success of	The program is constructed, introduced to the school community, and executed	1. SMK Negeri 5, a PBD school in Surakarta 2. SMK Negeri 5 Surakarta is a vocational school; most graduates will find employment after graduation, therefore

	implementing the 5S work culture in this vocational school?	appropriately in accordance with the task division in the created program.	they must be exposed to labor and industrial culture at a young age. 3. As an educational initiative to mold students' personalities
3.	What are the external factors that influence the success of implementing the 5S work culture in this vocational school?	5S task implementation is ongoing in all circumstances.	<ul style="list-style-type: none"> <li>- Dukungan dari pihak industri dalam kapasitas sebagai guru tamu yang mengenalkan budaya industri ke sekolah</li> <li>- Industry support in the form of guest teachers who bring corporate culture into classrooms</li> <li>- Parents of students assist in monitoring and regulating student behavior; - The surrounding community</li> </ul>

## Discussion

Based on the results of qualitative analysis of interview data and inductive observations regarding the implementation of 5S Work Culture in Vocational Schools, some intriguing findings were uncovered. These results can shed more light on the internal and external variables influencing the vocational school's effective adoption of the 5S Work Culture.

### How is the 5S work culture implemented in this vocational school?

SMK Negeri 5 Surakarta regularly implements the 5S work culture in front of the gate every morning, but it's still important to find out how informed and involved the staff and students are in these efforts. The 5 S culture—Seiri (concise), Seiton (neat), Seiso (clean), Seiketsu (well-groomed), and Shitsuke (diligent)—is used by keeping an eye on pupils as soon as they arrive at school, according to the findings of observations.

### What are the internal factors that influence the success of implementing the 5S work culture in this vocational school?

The program has a clear structure, is well-integrated into the school community, and is carried out in line with the way the jobs within it were divided. This demonstrates that the application of 5S is supported by an organizational structure. SMK Negeri 5 Surakarta, a vocational school, seeks to mold students' personalities in line with industrial and work cultures. Nonetheless, a deeper comprehension of the ways in which this program directly affects students' perceptions of and actions related to 5S is required. Table 1.3 lists a number of internal elements that affect how well 5S work culture is implemented in vocational institutions.

Table 1.3 Internal elements that affect how well 5S work culture is implemented in vocational institutions.

No	Internal elements	Description
1.	a Well-organized curriculum	Implementing the 5S work culture is made easier with programs that are well-planned and incorporated into the school community. An advantageous internal component of this curriculum is the participation of the entire school community.
2.	Well-behaved students	As a vocational school, we may enhance students' comprehension and acceptance of the 5S principles by emphasizing character development through early exposure to labor and industrial culture.
3.	Workload distribution	The program's task division and the application of 5S demonstrate an effective organizational structure and the enthusiastic involvement of all staff members and students in upholding order and cleanliness in the workplace.

### What are the external factors that influence the success of implementing the 5S work culture in this vocational school?

The fact that 5S tasks are still being implemented in spite of obstacles demonstrates the school's commitment to and consistency with 5S implementation. The industry gains additional value when guest teachers are used to support it. It is imperative to do additional research to determine the degree to which visiting professors enhance students' comprehension of 5S practices in the industrial setting. Parental involvement and the surrounding community provide positive external assistance by keeping an eye on and managing their children's behavior. It's important to find out more about any programs that involve their involvement in creating and sustaining a 5S work culture. Table 1.4 lists a number of external elements that have an impact on how well 5S work culture is implemented in vocational institutions.

Table 1.4 External elements that affect how well 5S work culture is implemented in vocational institutions.

No	External elements	Description
1.	School Persistence	The school can support the effective adoption of the 5S work culture by demonstrating its commitment to upholding cleanliness and order through the consistent execution of 5S tasks under all circumstances.
2.	Industry Support	Through industry support—especially from guest teachers—students are able to obtain real-world knowledge and experience. Students' comprehension of how to implement 5S in the workplace may grow as a result.
3.	Community and Parent Participation	An encouraging external influence is the community's support and the parent's active involvement in keeping an eye on and managing their children's behavior. This has the potential to foster a social climate in vocational schools that encourages the adoption of a 5S work culture.
4.	Work Culture Integration Into Daily Practices	In addition to being incorporated into the curriculum, the 5S work culture is also applied in day-to-day operations. This helps students form virtuous habits that they can carry into their post-graduation and post-employment lives.

## Conclusion

The impact of both internal and external elements on the effective adoption of the 5S work culture at the SMK Negeri 5 Surakarta is explained in detail in this research. This study examines the dynamics that underlie the effective application of 5S in professional education environments, emphasizing their complexity. These dynamics include program structure, student characteristics, industry backing, and community involvement. Not only are the therapeutic implications of these findings pertinent to SMK Negeri 5 Surakarta, but they can also offer significant direction for comparable educational establishments. The conclusion that industry involvement and structured programs directly affect the success of 5S implementation points to the necessity of a comprehensive and cooperative strategy for incorporating work culture into vocational training.

Specifically, the growth of regimented curricula that focus on character development features for students may serve as a template for other vocational schools. Continuous industry support, such as the introduction of guest lecturers, can be a great tool for expanding students' knowledge of industrial procedures and creating new chances for cooperation. The importance of community and parent involvement in supporting the implementation of the 5S work culture underlines that establishing policies in schools is not only an internal activity but also requires external assistance. Therefore, the secret to developing a learning environment that prioritizes responsibility and discipline may lie in forging strong ties between society, business, and education.

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