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Analysis of Organization X Problems Through Diagram *Fishbone* and Implementation of *Plan - Do - Check - Action*

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Abstract
Cycle Plan-Do-Check-Action (PDCA cycle) is part ofcontinuous improvemen twhich was initiated by W. Edwards Deming. The PDCA cycle emphasizes that every management action can be improved by carefully implementing the following work sequence:plan, do, check, action The data collection process began with an analysis of the problems experienced by the kitchen work unit. However, three kitchen supervisors reported that the problem they were facing was confusion over menu variations. This issue was then collectively examined for its underlying causes using a 5-point analysis.Whywith the next action plan. After usingtool 5 why, tracing the root cause of the problem felt like something was missing, so that when looking at the next action plan, it still seemed inadequate. Therefore, we tried using toolanother is fishbone diagram. FishboneThe diagram turned out to produce various root causes, even some things that were thought to be the main problem turned out to be the root cause of the main problem. Confusion in the menu variations was caused by 5 things consisting ofmanpower, machine, method, material and environmentwhich can be seen in detail in the partsfishbonePDCA diagram is a work sequence that can be used after knowing the root cause of the problem faced by organization X. The plans that will be carried out and the results that can be seen are based on observations and results from the table checkweekly every two months.

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1. INTRODUCTION

Cycle *Plan-Do-Check-Action* (PDCA cycle) is part of continuous *improvement* which was initiated by W. Edwards Deming. According to Nurillah (2017), Deming emphasized the need for continuous interaction between research, design, production, and sales. In contrast, the PDCA cycle asserts that every management action can be perfected by carefully implementing the following work sequence: *plan*, *do*, *check*, *action*.

Plan (John, 2012) is planning is workmanship. *Check* can be interpreted as checking and making comparisons between the actual results achieved with the targets set and also the accuracy of the schedule that has been determined. *Action* is to follow up. According to Zakaria (2014) there are 2 types of actions that must be taken based on the results achieved, including:

- Corrective action (*Corrective Action*), which is a solution to the problems faced in achieving targets, this corrective action needs to be taken if the results do not reach the planned targets.

- Standardization Action (*Standardization Action*), actions to standardize the methods or best practices that have been carried out, this standardization action is carried out if the results achieve the planned targets.

Steps to Make *Fishbone* Diagram:

- Identification of problems: Determine the main problem or effect to be analyzed.
- Team Formation: Involve individuals from various departments or functions related to the problem.
- Brainstorming Reason: Do a session brainstorming to identify all possible causes of the problem. Categorize these causes into major categories.
- Create a Diagram: Draw a diagram with the main problem at the head of the fish and the main cause categories as the bones. Add specific causes as sub-categories along the main bones.
- Analysis: Review the diagram to identify the most likely causes and priorities for corrective action.

Understanding the PDCA cycle theoretically is important for further practical implementation of the cycle. In this case, the practice of the PDCA cycle was carried out at an Organization X located in Muntilan, Central Java. Organization X is a dormitory consisting of boys and girls who are studying at Junior High School X and Senior High School X. After school, the activities of the boarding school children are under the guidance of the dormitory supervisor with a nun as the head of the work unit of Organization X.

The students living in Dormitory X come from various ethnicities, scholarship backgrounds, and regions. They come not only from Indonesia but also from Malaysia, especially those participating in the ADEM scholarship program. Dormitory X students tend to interact and communicate with the dormitory supervisors, who are divided into several work units, one of which is the kitchen unit.

In the kitchen work unit, there are dormitory supervisors who are tasked with providing snacks every afternoon and three meals a day for the children of dorm X. Employees in dorm X are employees who have a minimum work experience of 6 years to dozens of years, including those in the kitchen work unit. Therefore, they are very familiar with the process of providing food and the costs that must be incurred. From the beginning of dorm X until before*Covid*-19, dormitory X is in a stable condition and is different from the situation after*Covid*-19 where the selection process for entering schools and dormitories is not as strict as before. All work units, including the kitchen work unit, which is one of the work units of organization X, namely dormitory X, feel the impact. In terms of character and drastically different eating preferences, this causes confusion in the variety of food menus that must be considered and prepared by the dormitory supervisors who are assigned to the kitchen work unit *budget* that has been prepared.

Dormitory X is increasingly experiencing a decline in appetite which has made the dormitory supervisor in the kitchen work unit try to change the food menu but has not resulted in an increase in appetite so that the budget prepared is often wasted because the food is often not eaten by the dormitory children. This can be proven from the large number of times the dormitory children throw away food or leftovers in the dormitory trash can which is always checked every day before the trash is thrown into the garbage disposal. According to the dormitory supervisor in the work unit, the decline in children's appetite occurs because of the support of dormitory regulations that are not as strict as before and the freedom to use money sent by parents or scholarships to their respective accounts. However, to find out more, it is very interesting to look at the PDCA cycle analysis.

2. RESEARCH METHODS

On June 15-16, 2024, the PDCA cycle process was conducted on three female representatives from the kitchen work unit of dormitory X, with two women serving for 6 years and one woman serving for 14 years. The data collection process began with an analysis of the problems experienced by the kitchen work unit. However, the three work supervisors assigned to the kitchen stated that the problem they faced was confusion regarding menu variations. This problem was then examined together to determine the causes using a 5-point analysis of *Why* with the next action plan.

After using tool 5 *why*, the root cause investigation felt like something was missing, so that when reviewing the next action plan, it still seemed inadequate. It was too narrow and there were still things that hadn't been conveyed. Therefore, we tried using another *fishbone* diagram. Before using *fishbone* diagram, revisiting the problem to determine whether the selected problem is the most dominant problem or not. In this process, various things emerged that became problems and took the most dominant problem, resulting in two problems: a limited budget and confusion in menu variations. With the results of these two problems, then a re-investigation was carried out to see the most dominant problem between the two problems, so that one problem was found that was the most dominant and had a very large influence on the kitchen work unit, namely confusion in menu variations. After finding the most dominant problem and having a very large influence on the kitchen work unit, the next step was to trace the root cause of the problem using fishbone diagram.

In the process of tracing the root cause of the problem which is carried out through *fishbone.* The diagram turned out to produce various root causes, even some things that were suspected to be the root cause of the main problem turned out to be the root cause of the main problem. Confusion in the menu variations was caused by 5 things consisting of manpower, machine, *method*, *material* and *environment, which* can be seen in detail in the parts *fishbone* diagram above.

After seeing the root cause of the problem of confusion in the menu variations experienced by the dormitory supervisors in the kitchen work unit, then identify the solution and action *matrix which* is produced as follows:

Identify Solution

Man	SDM Kurang Memenuhi Kualifikasi	Tindakan Perbaikan "Diskusi dengan Pimpinan"	Evaluasi Per 2 Bulan
Machine	Kualitas Alat Masak	Tindakan Perbaikan "Diskusi dengan Pimpinan"	Evaluasi Per 2 Bulan
Method	Gaya Kepemimpinan dan Peraturan	Diskusi dengan Pimpinan dan Sosialisasi dengan Pihak Orang Tua Terkait Peraturan Asrama	Evaluasi Per 2 Bulan
Material	Ketersediaan Budget	Tindakan Perbaikan "Diskusi dengan Pimpinan dan Melakukan Perbandingan Harga sebelum dan sesudah perbaikan "	Evaluasi Per 2 Bulan
Environmant	Intensitas Selera Makan Anak dan Revisi Menu	Tindakan Perbaikan "Diskusi dengan Rekan Kerja dan Pimpinan terkait Merevisi Menu"	Evaluasi Per 2 Bulan

3. RESULTS AND DISCUSSION

From the table above, the next step is the stage which is the construction phase. A series of meetings related to the improvements will be held from August 1, 2024, to September 30, 2024. This time period is divided into three parts: from August 1-5, 2024, for the internal dormitory meeting plan, from August 5-10, 2024, for outreach to parents, and from August 11-September 30, 2024, for the implementation phase of the improvements.

Tabel Action Plan

FAKTOR	APA YANG HARUS DILAKUKAN	MENGAPA PERLU DILAKUKAN	WAKTU	LOKASI	PIC	BAGAIMANA MELAKUKANNYA
SDM Kurang Memenuhi Kualifikasi	Diskusi dengan Pimpinan Terkait Rekruitmen	Dapur Asrama Memerlukan SDM yang Sesuai Kualifikasi untuk Mendukung Proses Kerja dan Peningkatan Selera Makan Anak	1 Agustus - 30 September 2024	Ruang Rapat Asrama X	Ibu X	Menghubungi Kepala Bidang Karya Agar Melakukan Observasi dan Membuat Keputusan
Kualitas Alat Masak	Diskusi dengan Pimpinan Terkait Alat masak	Penambahan dan Peningkatan Kualitas Alat Masak Berpengaruh Terhadap Proses Penyedian Snack dan Makanan	1 Agustus - 30 September 2024	Ruang Rapat Asrama X	Ibu Y	Menghubungi Kepala Bidang Karya Agar Melakukan Observasi dan Membuat Keputusan

Tabel Action Plan

FAKTOR	APA YANG HARUS DILAKUKAN	MENGAPA PERLU DILAKUKAN	WAKTU	LOKASI	PIC	BAGAIMANA MELAKUKANNYA
Gaya Kepemimpinan dan Ketegasan Peraturan	Diskusi dengan Pimpinan dan Sosialisasi dengan Pihak Orang Tua Terkait Peraturan Asrama	Asrama X Memerlukan Gaya Kepemimpinan yang Tegas untuk Kelancaran Aturan yang Telah Ditetapkan	1 Agustus - 30 September 2024	Aula Asrama X	Ibu Z	Menghubungi Kepala Bidang Karya dan Mengundang Orang Tua Anak Asrama
Ketersediaan Budget	Diskusi dengan Pimpinan dan Melakukan Perbandingan Harga Sebelum dan Sesudah Perbaikan	Agar Pihak Asrama Dapat Melihat Perubahan Positif atau Negatif terkait Budget yang Dikeluarkan untuk Membeli Bahan-Bahan Makanan	1 Agustus - 30 September 2024	Ruang Rapat Asrama X	Ibu A	Menghubungi Kepala Bidang Karya dan Keuangan Asrama untuk Melakukan Rapat Berasama Pembina Asrama Dibagian Unit Kerja Dapur

Tabel Action Plan

FAKTOR	APA YANG HARUS DILAKUKAN	MENGAPA PERLU DILAKUKAN	WAKTU	LOKASI	PIC	BAGAIMANA MELAKUKANNYA
Intensitas Selera Makan Anak dan Revisi Menu	Diskusi dengan Rekan Kerja dan Pimpinan Terkait Merevisi Menu Kemudian Melakukan Perbandingan Selera Makan Anak Asrama X Sebelum dan Sesudah Perbaikan	Asrama X Memerlukan Gaya Kepemimpinan yang Tegas untuk Kelancaran Aturan yang Telah Ditetapkan	Agustus - 30 September 2024	Dapur asrama X, Ruang Makan asrama X	Ibu B	Menghubungi kepala bidang karya agar melakukan observasi bersama2 dan membuat keputusan revisi menu baru

After the stage *Do*, then the next stage is *Check* which is a stage for checking and making comparisons between the actual results achieved with the targets set and also the accuracy of the schedule that has been determined with the temporary check table design as follows:

PENGECEKAN PER 1 MINGGU

HARI	BUDGET	MAKANAN YANG TERBUANG		
		PAGI	SIANG	MALAM
SENIN	RP			
SELASA	RP			
RABU	RP			
KAMIS	RP			
JUMAT	RP			
SABTU	RP			
MINGGU	RP			

This table is a weekly table that will be used as comparative data after these improvements have been made for approximately two months. Reviewing the results obtained after eliminating *root couse* which is an obstacle to achieving targets or goals.

The final stage is the Action stage, which is the stage for following up on the results obtained. If the results of the improvements do not reach the target, then look again at the solutions that must be taken. However, if the results of the improvements achieve the target

or goal that has been planned, namely that the dormitory supervisors in the kitchen work unit are not confused about menu variations, then standardization action is carried out by maintaining or further improving the results that have been achieved to avoid facing the same problem again. This can be done by establishing standardization of the process of firmness of applicable rules so as to minimize or eliminate the factors that cause problems that occur in dormitory X, including problems experienced by the kitchen work unit.

4. CONCLUSIONS

When I use tool 5 *Why*, the process of digging into the root cause of the problem, I feel, is becoming narrow and many things are not conveyed, so the solutions found are less than appropriate. Therefore, the root cause of the problem is examined in detail using tool *fishbone* diagram.

Fishbone diagram provides detailed results on the root causes of the problems found, resulting in appropriate improvement plans to be implemented or carried out. PDCA is a work sequence that can be carried out after finding the root cause of the problem through diagram analysis of *fishbone*. Plans to be carried out and results that can be seen based on observations and results from the table of *checks weekly* every two months. Therefore, improvements and subsequent actions after improvements are made are not without concrete data but are supported by concrete data that can be used as material for subsequent, iterative quality improvements.

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