

“Impact of Implementation of Poka-Yoke in Hospitals”

Mrs. Rashmi C.Sattigeri, Dr. D.G.Kulkarni

¹*Asst.Professor Department OFManagement Studies VTU-Belagavi, 590018.*

rashmibaradwad@yahoo.com

²*Professor, Department of management Studies , KLE Dr. M.S Sheshgiri College of Engineering and Technology Belagavi 590006* dqkqoa@gmail.com

Abstract

Poka-Yoke is a Japanese terminology which means “Mistake- Proofing”. It is used as improvement strategy to prevent defects arising during the process. To develop a quality culture there is requirement of simple technique to be implemented. Poka-Yoke methods are simple and easily implementable in every sector. Each and every sector of organization wants to run the organization with most easily and error free for this Poka-Yoke plays a vital role.

Keywords: Poka-Yoke, Strategy, Techniques

1. INTRODUCTION

Poka-Yoke is a pro-active strategy which aims to keep the process flawless .It deals with fail- safeing or “mistake-proofing”. This idea was formalized by Shingeo Shingo for the Toyota Production System Poka-Yoke helps people and processes work right the first time. This is a technique which makes impossible to make the commit mistakes and substantially drives defects out of the processes and improve the quality and reliability. This term was coined by Shigeo Shingo in 1960s for the part of Toyota Production System. The aim of Poka-Yoke is to design the process so, that mistakes can be detected and corrected immediately, eliminating defects at the source.

When to use Poka- Yoke

Poka- Yoke is used for the process improvement and to avoid the error it is technique that can be used for process improvement.

Different types of Errors during the work process are as follows:

1. Processing Error: Process operation missed or not performed per the standard operating procedure.
2. Setup Error: using the wrong tooling or setting machine adjustments incorrectly.
3. Missing Part: Not all parts included in the assembly, welding or other processes.
4. Improper Part/item : Wrong part used in the process
5. Operations Error: Carrying out an operation incorrectly; having the incorrect version of the specification.

6. Measurement Error: Errors in machine adjustment, test measurement or dimensions of a part coming from a supplier.

There are different types of Poka- Yoke which can be implemented in the any sectors to name them:

1. Shutdown Poka-Yoke
2. Control Poka- Yoke
3. Warning Poka- Yoke

Shutdown Poka- Yoke is a technique which is used for prevention method of Poka-Yoke technique which shut down the process when the situation is out of the tolerance zone, it indicates a defective products which are produced are which are about to produce. By implementing the shutdown method we can assure about 100% defect free products. Control Poka-Yoke is methods which are installed on the process equipment or work pieces which makes it impossible to produce defects and a flow of non-conforming products to the next process. Warning Poka-Yoke method is a method which makes operator conscious about something which is going wrong in the process. Warning Poka-Yoke is highly beneficial in the work environment where different types of machinery are used simultaneously in the organization.

To implement the Poka- Yoke process in the organization first, there is requirement of understanding of current working condition and identification of the problem in the process. This can be done only by observing the process how the process is carried out after this process there is requirement of brainstorming of the idea , how to implement the Poka-Yoke concept best of the ideas need to implemented after implementation there is a requirement of observation of the process and evaluate the process.

Poka-Yoke has different methods in implementation of the process. As per Shingo , “Defects will be never be reduced if he workers involved do not modify operating methods when defects occur ”. Some of the Poka-Yoke methods are as follows:

1. Using shapes and colours
2. Software warnings and reminders
3. Using dialogue boxes and software checks
4. Using switches and automatic braking
5. Using checklists
6. Visual Prevention methods
7. Using Lights, sounds, signs etc.

Advantages of using Poka-Yoke concepts in every sector the foremost are an improvement in overall process and work culture. By integrating Poka-Yoke inline, mistakes are either prevented or caught shortly after they happen. Benefits of implementation of Poka-Yoke are

1. Reduces training time : Has there is a improvement in the work process and streamline in the work process there is no much requirement training to be provided to the employees in the organisation .
2. Encouragement of continuous improvement in the work process

3. Improvement in the work process
4. Reduction of wastage in the process
5. Interests towards work and higher productivity

After studying and understanding the Concept of Poka- Yoke there is a requirement of how it can be implemented in the work process:

1. There is a requirement of flowchart to created and identify the areas where error my occur .
2. Observation into the process thoroughly in identifying the potential error.
3. Considering into the elimination of the step which causes the error and replacing the step with the error –proof one make the correct and easier than the error
4. If we are not able to reduce the error or occur, we did to think with the alternative and minimize with its effect.
5. As per the different types of Poka-Yoke methods , please select the best mistake- proofing method and make the process easier.

Conclusion:

By this, we can conclude that Poka- Yoke can be easily implemented and we can see the high impact in the work culture because there can be improvement in the employee performance because of easy methods of work process, by following SOP in the organisation. So, It is required every sector need to implement the Poka-Yoke in the working organisation.

Reference:

1. Anil S. Badiger , R.Gandhinathan , V.N.Gaitonde , Rajesh S. Jangler “ Implementation of Kaizen and Poka-Yoke to enhance overall equipment performance -A Case-Study”.
2. Ivan Fantin(2014). Applied Problem Solving : method, Appication, root cause , Countermeasures, Poka-Yoke and A3 How to make thing happen to solve problems
3. Grout , J.R(2006) , Mistake proofing : Changing designs to reduce error. Quality in Healtcare , 15(1) ,44-49
4. Mr. Prarikshit S.Patil ; Mr. Sangappa P.Parit; Mr.Y.N.Burali “Poka-Yoke : The Revolutionary idea in total Productive Mnagement”
5. N. Harisha – Poka- Yoke Report
6. Shinto S.Zero Quality Control: Source Inspection and the Poka-Yoke System