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# Root Cause Analysis Using 5 Whys

For Techno India NJR Institute of Technology

पंकज पोरवाल

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# Why We Use Root Cause Analysis ?

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We use Root Cause Analysis (RCA) to find the root cause of semi complex to very complex problems in our workplace



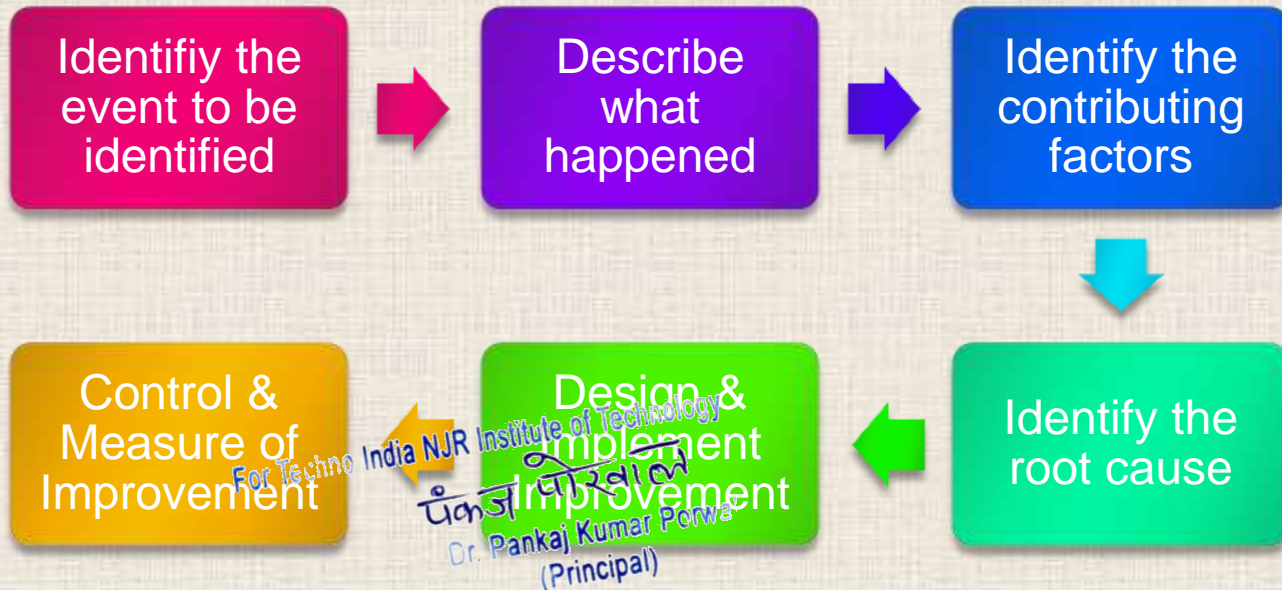
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# How Do We Perform Root Cause Analysis?

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A quick overview of how to perform RCA at workplace

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# What kinds of method available there to Perform Root Cause Analysis?

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There are so many methods to perform root cause analysis, such as Failure Modes & Effects Analysis (FMEA); Fault Tree Analysis (FTA); Man, Method, Machine, Materials & Environment (4M+1E), and the easiest one is **5 whys analysis**

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# 5 Whys Analysis

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5 Whys analysis is a simple process to understand any problem. 5 Whys analysis is an iterative interrogative technique used to explore the cause and effect relationships underlying a particular problem.

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# Benefits of 5 Whys Analysis

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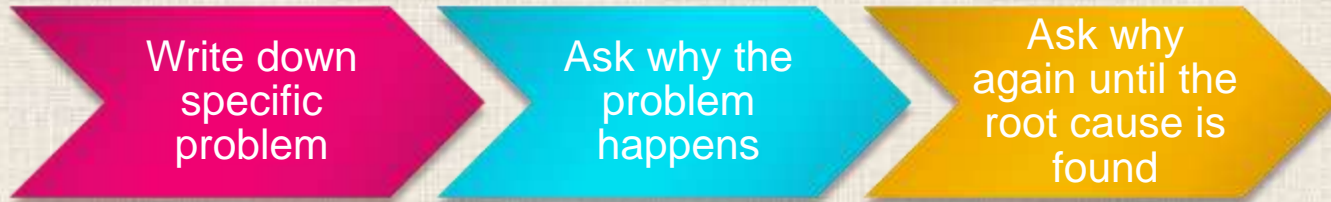
1. **Easy** to learn & apply
2. Find the root cause of the problem **quickly**



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# How to complete 5 Whys Analysis?

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Note : the process of asking why the problem happens can be fewer or more than 5 times

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# Example of Problem Solving Using 5 Whys Analysis (1<sup>st</sup> example)

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**What** : Defect found in rubber compound caused by Foreign Material

(an operator gloves unexpected compound)

**When** : December 19<sup>th</sup> 2016

**Who** : Production Operator

**Where** : Kneader / Mixing area

**Why** : Explained on the next slide



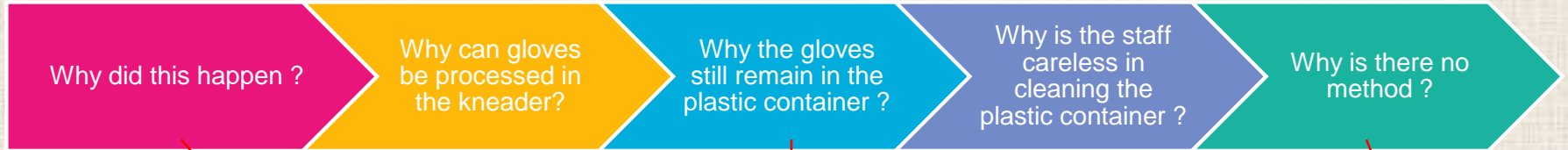
Rubber Compound for Car Tyre



# Why (continued)

Gloves still remains in the carbon black plastic container

The staff acts as double checker & no method for used glove disposal



Gloves unexpectedly processed in the kneader

The staff is careless in cleaning the plastic container

No trash bins provided in the kneader area

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# Root Cause (continued)

**The root cause** for the problem → human error by the production operator which is triggered by no trash bin for gloves disposal.

**Corrective Action** : Cut and throw away the contaminated rubber compound, after that Remill the rubber compound in the kneader

**Preventive Action** : Provide trash bin in each kneader area for used gloves disposal

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# Thank You

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# Reference

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Here are the links you can find more about RCA :

<https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/GuidanceforRCA.pdf>

<https://www.isixsigma.com/tools-templates/cause-effect/determine-root-cause-5-whys/>

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