

The Professional Problem Solver Certification



# PROBLEM SOLVING PLAYBOOK





# VIDEO 1

## THE 8 FORMS OF WASTE

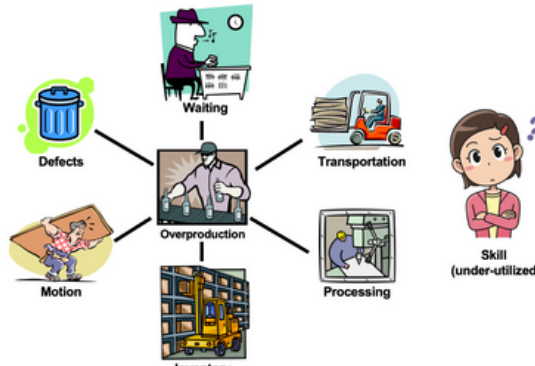


Featuring: Kara Slocum

# DEFINE THE 8 WASTES

What are the 8 wastes? Remember the acronym **TIM WOODS**

1. **T**ransportation
2. **I**nventory
3. **M**otion
4. **W**aiting
5. **O**ver-Production
6. **O**ver-Processing
7. **D**efects
8. **S**kills (under-utilized)



## Transportation

Occurs when materials are moved from one place to another.

It may look like work is being done, but is the customer willing to pay for you to move material around the building? The way you have setup your factory isn't their fault!

## Inventory

Whether it is in the form of WIP, raw inventory or finished goods, excess inventory allows for process quality and rate of work to remain hidden.

It wastes spaces, it ties up cash, and it hides all of the other forms of waste.

## Motion

Any movement of person's body which could include lifting, walking, reaching, hoisting, bending that results in fatigue, wasted time and probably frustration.

## Waiting

Any time an operator or machine is waiting to do work.

This is the biggest offender of adding lead time to a product and can negatively impact delivery performance.

## Over-Production

This is to produce too much material or to produce before it is actually needed.

Why is over-production so bad?  
Because it hides all of the other forms of waste.

## Over-Processing

Can be defined as doing more work than what is necessary or holding a higher quality than what the customer requires.

## Defects

Anything that produces rework, scrap, mistakes or errors internally or externally.

## Skills (Under-utilized)

Is defined as not properly utilizing the experience, talents, skills and knowledge of all employees.



## APPLICATION EXERCISE

Identify and write down at least one example of each of the 8 wastes (transportation, inventory, motion, waiting, over-production, over-processing, defects and skills) we just reviewed that is occurring in your facility.

Take one of those wastes that you identified above, and quantify it. How much time is being lost each day because of the waste?

Write down three examples of value-added steps that you observed at your company.





# VIDEO 2

## THE 5 WHY METHOD



**Featuring: Peter Fritsche**

# USING THE 5-WHY METHOD

## THE 5 WHY PROCESS STEPS



## THE BENEFITS OF 5 WHYS

- ✓ **Very simple approach:** Anyone can use it, children use it to learn
- ✓ **Evaluates the process:** Captures snapshot of team knowledge
- ✓ **Use it anywhere, anytime:** Doesn't involve advanced knowledge
- ✓ **Can be done in your head**

## 4 DISADVANTAGES OF 5 WHYS

- |   |  |
|---|--|
| <p><b>1</b></p> <p><b>Will not work on complex problems</b><br/>May lead to complacency</p>                   | <p><b>2</b></p> <p><b>Results are not repeatable</b><br/>Different people can come up with different causes for the same problem</p> |
| <p><b>3</b></p> <p><b>Linear approach</b><br/>May lead to one set of causes and less than ideal solutions</p> | <p><b>4</b></p> <p><b>Branching may be needed</b><br/>In-depth analysis to get to the root cause</p>                                 |





# APPLICATION EXERCISE

USE THE 5 WHY FOR SIMPLE/STRAIGHTFORWARD PROBLEMS

Problem	
Why?	
Why?	
Why?	
Why?	
Why?	
Solution	



# VIDEO 3

## IMPACT -VS- DIFFICULTY MATRIX



Featuring: Matt Kanz



# LEARN IMPACT VS. DIFFICULTY DECISION MAKING

## IF WE ALL WALK TOGETHER, WE WILL SEE

It is not easy to make decisions. These simple diagrams help you choose the activities you should prioritize and the ones you should avoid, is you make the most of your time and opportunities.

### 2 Key Points:

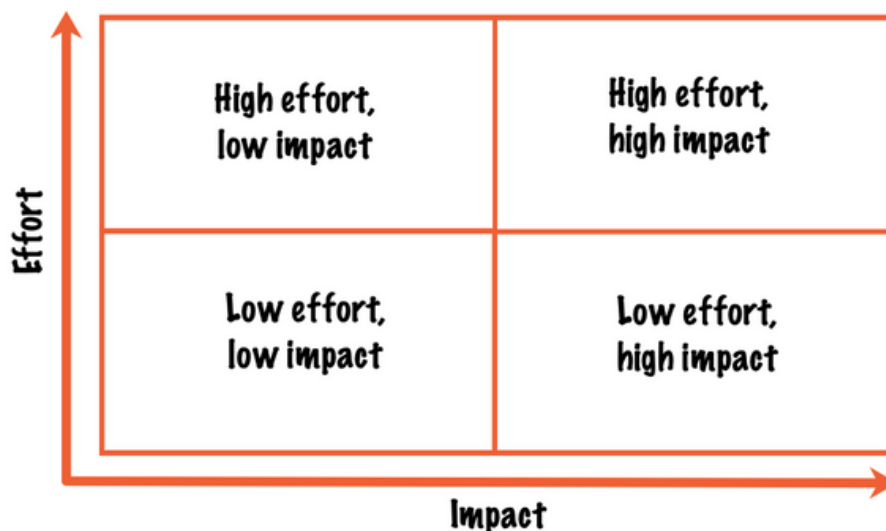
1. Often there can be disagreements about what to focus on within a team.
2. You can overcome disagreements by walking together frequently.

## IMPACT -VS- DIFFICULTY PROCESS

1. Brainstorm ideas for improvement/solutions to an active problem

Ensure this starts alone, everyone is quick to judgement

2. There are no wrong answers, have everyone participate and identify their thoughts quietly
3. On the post it, it is important that everyone is brief & bold in the truth
4. Once everyone is complete, writing ideas out, on large poster with the following:



## APPLICATION EXERCISE

Review the multiple ideas from the first 5 Lessons (Standard Work, 5S, Visual Management, Mistake Proofing and Kanban) and plot these on the simplified approach.

**Write down when you will utilize impact difficulty with the team?**

**What is the subject that causes the most stress on the team?**





# WHATS NEXT?

## PROFESSIONAL PROBLEM SOLVER CERTIFICATION

Because you need a critical mass of people on your team that can clearly identify problems and implement solutions.

### ON-DEMAND COURSES

1

Identifying Problems  
to Solve

2

Getting to the  
Root Cause

3

Implementing  
Improvements

### PERSONALIZED COACHING

Schedule a 1:1 coaching call after each video course so you know you're doing it right.

Complete the exercises  
in your workbook

Never feel stuck  
or alone

Overcome barriers and  
apply what you learn



On-Demand

Learn more by using the QR code below or visiting [www.mfrall.com/PPS](http://www.mfrall.com/PPS)



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