

DEVOPS CULTURE AND MINDSET

DevOps Principles: Improvement Kata



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Learning Objectives

Define **Improvement Kata** in basic terms

Inspire further **research**

Discuss **origins** of Improvement Kata

Describe **steps** to using it successfully



Improvement Kata

Comes from Toyota production system

A process for **continuous improvement**



Improvement Kata Steps

1. Understand **vision** & **direction** for project
2. Analyze to understand **current condition**
3. Establish **target condition**
4. Plan > Do > Check > Act (**PDCA**) toward target



An Example of Using Improvement Kata at Nordstrom

Value stream mapping and improvement kata were used

Customer-facing engineering teams aimed to **reduce cycle time by 20%**



Next Step at Nordstrom

Each team had to grasp **current condition**

Set target (cycle time from 5 to 4 weeks)

Pick experiments to **iterate toward target**



One Experiment in Nordstrom Example

Remove an approval process in hardening phase

Result: **Saved a day** in the process



Next Team Focus in Nordstrom Example

Target: Reduce exceptions in hardening phase

Implementing automation **shaved 2 days** from cycle time



Next Team Focus on the Deployment Process

Aim to **automate tasks** & improve quality

Result: Release took fewer days

Reached goal of 4-week process



Setting PDCA Cycles

Weekly check-ins

Plan > **D**o > **C**heck > **A**ct

Set check frequency at 3 weeks



Summary

People assume they know what problems they need to solve

They jump to conclusions about how to solve assumed problems

Leveraging Improvement Kata requires leaders to direct problem-solving

Improvement Kata provides a useful methodology