

Kanban Pizza Game—About Kanban



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What is Kanban?

Kanban is a tool that allows optimization of a process by visualizing it. There are three main prescriptions:

- 1 Visualize the workflow
- 2 Limit WIP
- 3 Measure and optimize the average lead time

Visualize the workflow

With the physical production of the Pizza the workflow is always pretty present, and with the drawing of the workflow we can reflect the current process.

Limit WIP

Through the game some kind of bottlenecks and queues will pile up. During the game we introduce **work in progress limits** to make sure that we produce the right things and to avoid that we lose points for unused materials. The participants experience that WIP-Limits are more than just intentional limitations. —They change behavior. People interact more on the overall production, communicate more and help each other when needed.

Measure and optimize the average lead time

In the game we do not measure the lead time, because it would make the game more complicated. Instead we built in a point system that triggers the same behavior of optimizing the flow.

In the real world we haven't such a point system. Here we use the average lead time as measurement and optimize accordingly.

Some Benefits of Kanban

- Bottlenecks become clearly visible, leading to increased collaboration
- Evolutionary path to agile software development
- Provides a way to be agile without iterations, starting where you are
- Natural tendency to spread throughout an organization

Kanban Pizza Game Rules



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Recipes

Pizza Hawaii

- Pizza Base (cut paper, buckled edge)
- Tomato Purée (painted red)
- 3 pieces of ham (cut pink post-it-snippets)
- 3 pieces of pineapple (cut yellow post-it-snippets)

Pizza Speciale

- Pizza Base (cut paper, buckled edge)
- Tomato Purée (painted red)
- 7 pieces of rucula (thin green post-it-snippets)
- Rucula burns in the oven!



Points

- Each finished pizza gives 5 points
- Unused pieces: minus points
 - Unused pizza base: - 2 points
 - burned pizza: no points, all materials count as unused
 - (optional: per 3 unused snippets of paper: - 1 point)
- When filling orders, an order gives points when all is done or none when anything is missing.

Constraints

Oven

- After the oven is closed, no other piece must be put in.
- A pizza has to bake for 30 sec and is burned after 45 sec.
- Pay attention, Rucula is burned in the oven!

Round Length

- Arbitrary, limited amount of time to simulate a random slice of the day.

Playing

You're opening a new pizza restaurant. We're your sponsors, we supply you with an oven, material and tools. We expect you to attract and bind customers with good quality and to earn money.

Kanban Pizza Rules—Game Master



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Rounds

Ok, here is the deal: You are the sponsor of a Pizza Bakery Shop! Motivate people to produce the highest value.

Round 1 Let them bake Pizza Hawaii as fast as possible and see what happens. Tell them that on the first day, all pizza is handed out for free and you expect a lot of customers. Do not give further instructions for the set up.

Round 2 Introduce orders (and explain the impact on the score), introduce stations, introduce WIP limits

Round 3 Introduce the „Pizza Speciale“—attention, Ruccola burns in the oven!

Round 4 Let them self-organize

Flow of the Game

- Explain them that you want to run a Pizza Shop. Read Preparations and follow the instructions
- Ask them how many points they think that they will score, note that number.
- Tell them that the rounds will symbolize slices of the day and will not have a fixed length
- Do about 6 mins rounds but do not tell them how long it will be
- Count the score after each round
- Do a 2 min retrospective after each round. 1 min to focus on what impeded them most and another 1 min to discuss how to improve that or get around it.

Goals of the Game

1. „Feel“ Kanban
2. Understand **Pull** and why it works in contrast to push (make sure this is implemented by round 2)
3. How to decrease lead time by **limiting WIP**
4. How to build a **Kanban Board**

Preparations

- Get into groups of 5 people (ideally; 4 people also works). Each group at one table.
- Hand out a stack of yellow paper
- Hand out a stack of colored post-its (yellow, green, rose)
- Prepare a red marker and a scissor on every table
- Prepare a stop watch (oven)
- Prepare some tape (oven)

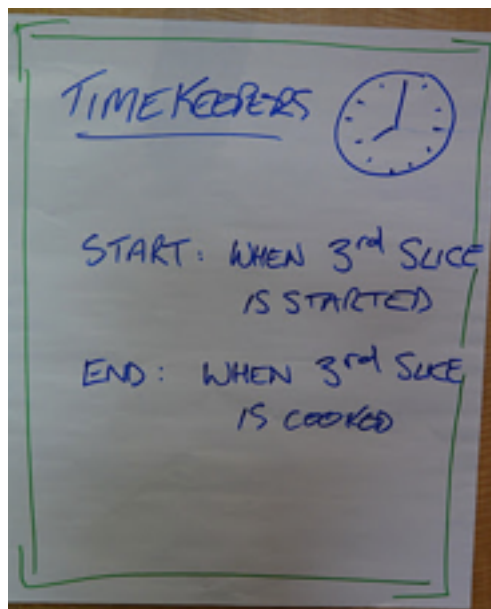


Preparations

Show them how to prepare a Pizza Hawaii! (But not in steps, just show)

Report

1. „Sold“ pizza slices
2. Inventory
3. Points per round
4. Lead time of the third pizza slice (Optional!)



TimeKeeping

Kanban Pizza Game – Outlook



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Ok, now we experienced Kanban! What is next?

Kanban is a tool that can change your life. But there is more to it than just setting up a board.



KANBAN BASE – 3 Prescriptions

Limit WIP

Measure Lead Time

Visualize

Next Steps to Kanban

1. Visualize your Process
2. Limit your Work-In-Progress
3. Measure the Average Lead Time
4. Identify Bottlenecks
5. Improve

You do not need to take that challenge on your own. We offer help – Training and Coaching by agile42.

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