**Agile Pizza Game in Mural**Version 2.2

**Facilitator Notes:** The [Kanban Pizza Game](https://www.agile42.com/en/kanban-pizza-game/) is a popular agile simulation by consulting company, Agile42. It typically requires in-person teams using paper, scissors, tape, and coloring pens. This version has modifications to make it play better in a virtual space and plays better as a Scrum simulation.  If playing as Kanban simulation, you may want to follow the traditional Agile42 directions.

**Scrum Version**

Plan for 5-7 player teams, about 60 minutes total.  General timing is:

   \* Facilitator Intro:  5 minutes

   \* Sprint Zero Practice:  7 minutes

   \* Three Sprints:  10 minutes (with the following timings - use Mural timer)

         - Sprint Planning: 2 minutes

         - Sprint: 4 minutes

         - Sprint Review:  2 minutes

         - Sprint Retrospective: 2 minutes

   \* Final Debrief and Wrap-up:  10 minutes

Teams should be self-organizing but for the first round, suggest one person staff each of the five workstations, with the sixth (if six playing) to be the Scrum Master. If there is a seventh player, they may play the role of the Product Owner (typically the Facilitator plays the PO role.)

If more than one team is playing, create a Mural canvas for each team using breakout rooms and additional facilitator(s).

The following notes are embedded in the “Outline” functionality of Mural. The outline functionality enables storing some facilitator notes and jumping to a specific spot on the Mural board. For those not using Mural, the ‘outline’ notes are extracted here:

1. **Introduction:** This simulation is based on the Kanban Pizza Game by Agile42.  It is a fun Agile simulation and this version also teaches Mural.  The Agile Pizza Game is based on the original paper and scissors game by Agile42.  This Mural version is setup with a Scrum context (vs. the original's Kanban) and plays best with 5-6 players.  One person per workstation, and a Scrum Master if six.  Facilitator is typically the Product Owner to set a goal and accept finished pizzas.  Plan three sprints and about 50-60 minutes to play the simulation (more if you want to incorporate teaching between sprints.)

Start with a short introduction of the game and take students to the Sprint Zero - Practice Area.  Each of the outline sections below have further instructions as you work through the game.

1. **Sprint Zero - Practice:**

Go to the Practice area in the lower left of the canvas. Start by giving students some Mural basics like moving the canvas (left click+move the mouse) and zooming (using the mouse scroll wheel.)  Walk-thru each of the functions from top to bottom (the pink cards.)  Ask students to practice doing each of the functions, creating objects in the practice area.   Move fairly quickly, goal is not total proficiency but to get an idea of the basics -- estimated time 5-7 minutes.

After the practice, zoom to show the whole board and introduce the menu and pizza kitchen.

1. **Menu:** Facilitator covers the three kinds of pizza on the menu:
* Mushroom:  Has five mushrooms per pizza (purple circles)
* Hawaiian:  Four pieces of pineapple (yellow triangles) and three pieces of ham (also known as Canadian Bacon)
* Deluxe:  Three pieces each of mushroom, pineapple, and ham
1. **Pizza Kitchen:** Pan out to see the kitchen area -- this is where the work gets done!  The team's goal is to make as many pizzas as planned in Sprint Planning.  The steps to make the pizzas are outlined with the numbers, with instructions for each step included next to each numbered icon.

Teams typically start a bit slow (like Agile teams) but gain speed and quality with each subsequent sprint.  Play three (or four sprints if time allows) -- about 10 minutes total per sprint.

General timing is Sprint Planning = 2 minutes, Sprint = 4 minutes, Sprint Review = 2 minutes, Sprint Retrospective 2 minutes.  Use the Stopwatch timer in menu bar at the top to control time.

1. **Sprint Planning (Points):** The game came be played in two to four sprints (typically three.)  For the first sprint, a Sprint Goal of making one Mushroom pizza works well.  A common goal for the second sprint is to make one of each type of pizza.  For the third sprint, encourage some stretch -- the team may not hit the goal and be sure to debrief on what happened.

The PO/Facilitator should select and move the appropriate pizza order(s) to the board.  If there are six people, encourage one to play the role of Scrum Master -- moving the orders on the board and helping out as servant leader.

Initially, each player takes one of the five workstations.  As the game progresses, encourage "T-shaped" people (players helping out at other stations) and have the team brainstorm other actions to maximize pizza output.

1. **Sprint Review:** At the end of the sprint, inspect the pizzas completed -- did they meet all of the acceptance criteria?  If not, do not deliver to the customer.   If the Acceptance Criteria was too vague, consider revising in the "Additional Acceptance Criteria" area.

Count the number of pizzas completed and update the Sprint Planning chart as you start the next sprint -- 1 pt for Mushroom, 2 for Hawaiian, and 3 for Deluxe.  Use the total to help plan the next sprint.

Optionally, you may score the pizzas delivered using the Scorecard.  Each pizza completed earns the price of the pizza but any extra unused ingredients are deducted from the score (work-in-progress inventory is expensive!)

*Facilitator clears off* (deletes) all the completed and in-progress pizzas (usually this is done while the team is holding the retrospective).
Prepared toppings can either be kept, or cleared off for the next sprint.

1. **Retrospective:** Be sure to take time to do a retrospective after each sprint.  Players should either call out what went well/not well or use the Sticky Notes to enter input.  Encourage thinking about what Actions might help the team work faster in the next sprint.

The 2-minute retrospective can flow directly to the 2-minute Sprint Planning (set a 4-minute timer and remind the team when two minutes are left.)

1. **Game End:** At the end of the game, do a final retrospective and debrief (these questions are based on a Thiagi debrief, but feel free to use your own questions.)
* How did you feel playing?
* What Agile concepts came into play?  Highlight and reinforce where agile principles were exhibited.
* What did you learn?  What agile strategies did you use?
* How was the game like real life and what might you do differently in the future?
* Any suggestions to improve the game?

**Closing Thoughts**: Different ideas have been proposed including improving the kitchen layout, different rules, adding cycle time calculations for pizzas, etc. The Agile42 version presents agile concepts between each sprint and includes having students design their own kitchen and workflow. This may be a bit more challenging in Mural than with paper, scissors, and tape, however, if time is available you may give this a try (this requires ‘unlocking’ the objects in Mural)

Have fun!