

The LeanActivity Factory Game

A playful Approach to Lean Management



A modern Approach to teach Lean Management

Lean Management is relevant for every single manufacturer around the globe. But still, it is a challenge for most companies to train and maintain a certain Lean level inside the organization. The LeanActivity Games perfectly fit into this need. With up to eight four hours of gameplay, the LeanActivity Factory Game teach your organization and helps you to form a Lean mindset. The Game start with an *ordinary* production plant. Step-by-step, the team members will implement Lean principles and help to improve the assembly processes. They will learn the pro's and con's of each tool and the logic behind them. After finishing the game, the players are ready to start working on Lean principles in your organization.

Made of Wood and PVC

1. The assembly Product: Pen

The game is a pen manufacturer-model. Within six assembly stations, the players have to assemble the pens according to the assembly sequence and instructions.

2. Material Packaging

All boxes and pallets are made of solid wood. The Euro Pallet is at a 1-to-10 scale (8 cm x 12 cm). All boxes, stations, operators or fork lifts are according to that 1-to-10-scale.

3. The Operators

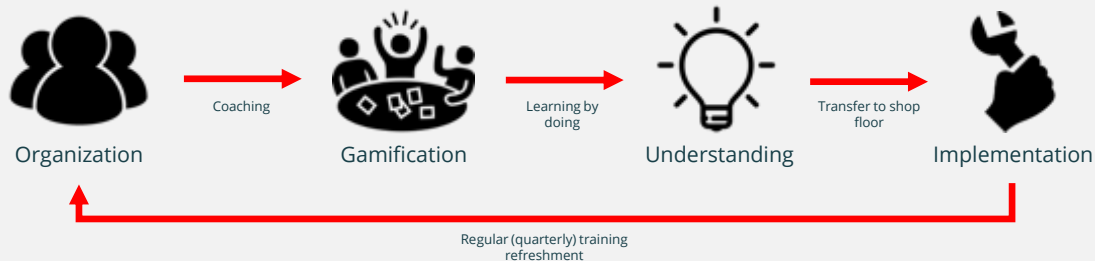
All workers and assembly operators are made of high quality materials. When playing the game, the participants will love the look and feel, and the consistency within the entire factory model.

4. Fork Lift and Route Train

A key element of Lean Management are the route trains. As part of the supply chain, they connect everything together. Both, the route train and fork lift, are made of high quality PVC material. The logistic operator perfectly fits inside the vehicle.

5. Game Instructions and Game Cards

The heart of the bundles are the game instructions and game cards. They guide the team and moderator during the entire game. They include assembly instructions, change requests, explanations and much more. The game follows a business case: Starting with an ordinary production and requests to decrease costs and to increase efficiency.



Gamification = Long-term Training Success

Contact us for individual offers and customized product solutions. Scan the QR code, visit <https://leanactivity.com> or contact us via info@leanactivity.com.



Why should you use the LeanActivity Game Bundles?

People learn best by working with their hands instead of reading about it. Same implies the *Cone of Learning* by E. Dale:

Types of learning	What we remember after 2 weeks
Doing it in reality	100%
Simulation/gamification	90%
Giving a talk	70%
Participate in a discussion	
Seeing it done	50%
Watching movies / photos	30%
Reading about it	10%

When coaching your team with the LeanActivity game bundles, the knowledge transfer will be 10x times more intense after 14 days compared to just reading about it. This will not just save money, but time.

With up to eight players, the game bundles act as a real production site including warehousing, logistics, assembly sequences and work instructions. The product is assembled on six stations by six line operators. The players will become real factory operators on the shop floor.



Eliminate waste: This game forms a mindset of eliminating waste. The initial factory condition is full of waste. Let the team detect waste in the processes and find smart solution to eliminate it.



Gamification increases acceptance across the organization: By training Lean tools within a simulated factory model, the principles will be transferred much easier.



Learn from mistakes: By touching the elements with your hands, you will have a deeper relation to the factory model and processes. You will learn and understand relations and will be able to learn from mistakes to define new ways of improving.

Gamification: Enhanced Learning Experience

LeanActivity is based on teaching the Lean management principles and tools in a playful way. By doing so, it will strengthen the team spirit, the Lean mindset and finally helps you to form a Lean culture in your company.



Use your hands to modify the processes of the factory model.



Identify waste inside the assembly processes by working as an operator.



Apply Lean principles and immediately see the impact.



Use the game instructions to play real business cases and scenarios.

Start with an inefficient assembly ...

... and improve it round by round in teamwork.



- The game starts with an ordinary production site. Following the game instructions, you will have to assemble the pen and measure the throughput time of the process
- Step-by-step, the game cards will reveal Lean improvements like Kanban, 5S, One-piece-flow, Design for Manufacturing and much more
- After each improvement, the team will assemble pens and measures the throughput time again
- The final Lean factory layout will occupy far less space and will reduce the throughput time and level of inventory tremendously. The team will realize the impact of Lean activities in a joyful way.

How the Game works: Round 1 – Lean Basics

1. The game is prepared on a table by the moderator before the game starts. A guide to place all items accordingly is included in the game box.



4. Before the first round starts, each player will go through his work instructions. The work instructions include the assembly operation. As the factory produces a product, each station has to fulfill one assembly step.



5. Once the players got familiar with the assembly operation, they receive the assembly tools (clamps) to assemble the very first products.

While doing so, first causes for inefficiency within the sequence become obvious (wrong tools, missing parts, dust, ...).

To improve visualization, the team gets equipment to visualize the process and workplace. Discuss in the team in which way visualization works best for the operators.

LeanActivity Game – Round 1
 Standard Work: Get used to the product and work instructions

Instruction / Task	Content of this Game Round
<ol style="list-style-type: none"> 1. Watch the LeanActivity Welcoming Video. 2. The moderator introduces you the typical 7 types of waste. You are welcome to watch the Lean Introduction Video. 3. Each player picks one Operator Card and writes his name on one of the cards. This card represents the position of the player in the game. Each player chooses one station (1 to 7) or the fork lift and places his Operator Card in front of the station or inside the fork lift. 4. The engineering department has standardized the Work Instructions #1 for each station and operator. Use the enclosed instructions to get familiar with the work and assembly process. Place the Work Instructions onto the stations. Each player picks the required tools from the Toolbox and place them on the table. 5. Station 1 to 6 get one empty WIP Box and places them onto the WIP Out Floor Marking. These boxes are used to move assembled components from one station to the next station. 6. Station 1 gets 2x Material Floor Markings, station 2-6 gets 1x Material Floor Marking each. Place these markings close to your station. Raw materials will be supplied by logistics onto these markings. 7. The moderator shows you the assembly sequence of one pen. Get used to this sequence and get familiar with your assembly step. 	<ul style="list-style-type: none"> LeanActivity Welcoming Video Lean Introduction Video Pen Assembly Video Operator Cards Work Instructions #1 for each station and the logistics operator Material Floor Markings #1
	Tips Some steps might not be optimized right now. Do not optimize them yet, as we will go through the potentials during the game.

Game Card for Round 1: The Game Card includes task instructions, information about contents of this game round and further tips.

Each game round comes with its dedicated instruction and materials (like shelves, floor markings, route trains, SMED equipment, ...).

4. Measure the time for assembling the products in the factory model. In each round, the team has to assemble the product according to the new improvements. You will see how the process becomes more efficient after each round.

At the end of each round, the moderator can ask the team to give feedback. This will happen in front of a flipchart (if available) or simply in a discussion. Instructions for the moderator are included in the game box.

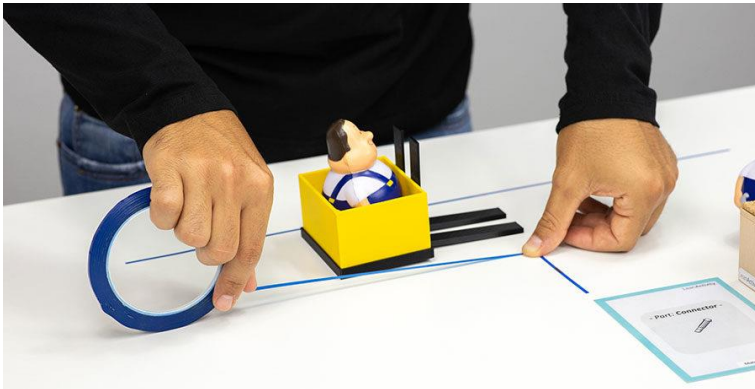
LeanActivity Game – Round 2
 Let's start the assembly process

Instruction / Task	Content of this Game Round
<ol style="list-style-type: none"> 1. Supply material to each work station. Therefore, the fork lift driver feeds material boxes on pallets from the warehouse to each station. Don't forget to stick to the game rules! Pay attention to the correct material destinations at the work stations. Do only supply materials for just one pen color to the stations. 2. Place the Customer Request onto the shipping area. Caution: The two pen variants have different lead colors. 3. Start the pen assembly process to assemble the requested pens according to the Customer Request. Measure the time it takes to assemble the pens with a Stopwatch. Note: After each station, the pre-assembled parts in the WIP Boxes must be moved with the fork lift to the next station. 4. Note the measured time onto the Scorecard. Discuss and note the pros and cons of this round in the group. 	<ul style="list-style-type: none"> Customer Request Scorecard Stopwatch
	Open Discussion <ul style="list-style-type: none"> Discuss in the team: Where do you see issues and bottlenecks during the assembly process? Lean will give big improvements in managing product variants. Let's see in the upcoming rounds which Lean tools will do the trick.

Game Card for Round 2: One of the assembly stations faces high change-over times and delays the entire assembly process of his teammates. Round 2 deals with the improvement of the change-over time and comes with tools and equipment. The team performs a SMED workshop on this station. Several solutions are possible and can be developed and chosen by the team.



In-Game-Scenes



Use the **marking tape** to determine the logistics routes



Use **visualization elements** for clear processes



A **ballpoint pen** is installed across 7 workstations. The participants have direct contact with the game elements.



The participants will understand easily the **weaknesses of a fork lift** and the **benefits of Lean logistics** by playing the game.

Gamification ✓ Coaching Success ✓ Lean Understanding ✓ Lean Acceptance ✓ Efficiency ✓

The LeanActivity Online Platform supports your Workshop



OnlinePlatform by LeanActivity.

Game Instructions & Videos:

You can find all game instructions in digital form on the LeanActivity Online Platform. In addition, in each round you will find introductory and explanatory videos that you can show to the participants. Whether on a laptop, tablet or projector.



Train-the-Trainer Videos:

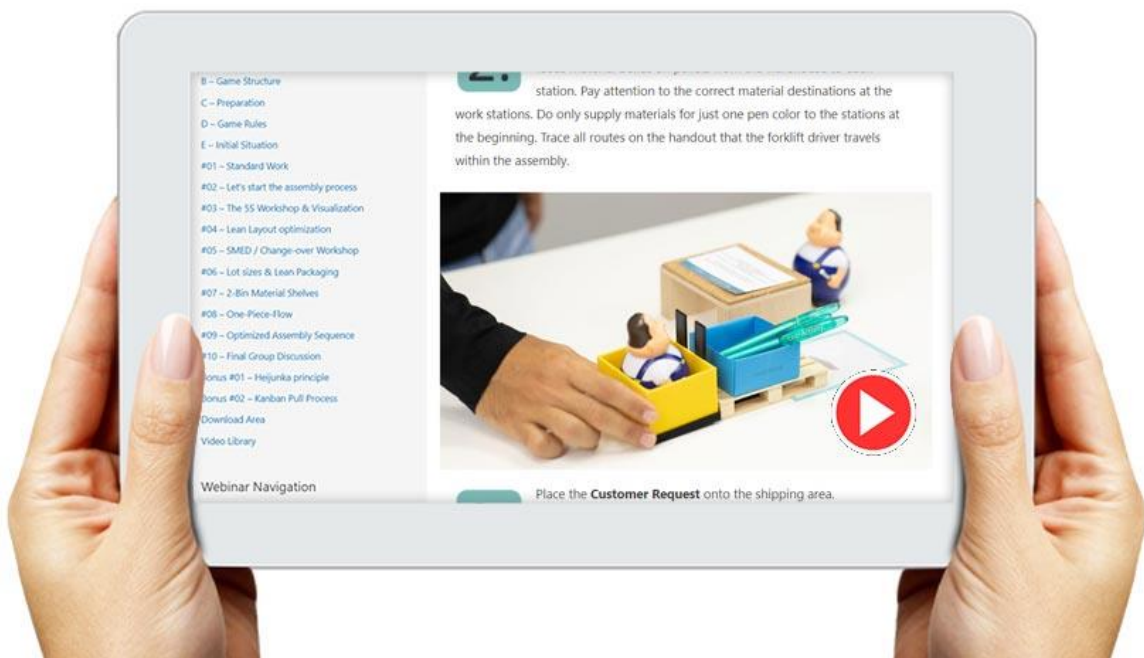
All game rounds were exemplarily played by us. The moderator can watch the gameplay videos on demand in order to get a better understanding of the game.

Download Area:

All playing card elements can be printed out if required.

Access to the LeanAcademy:

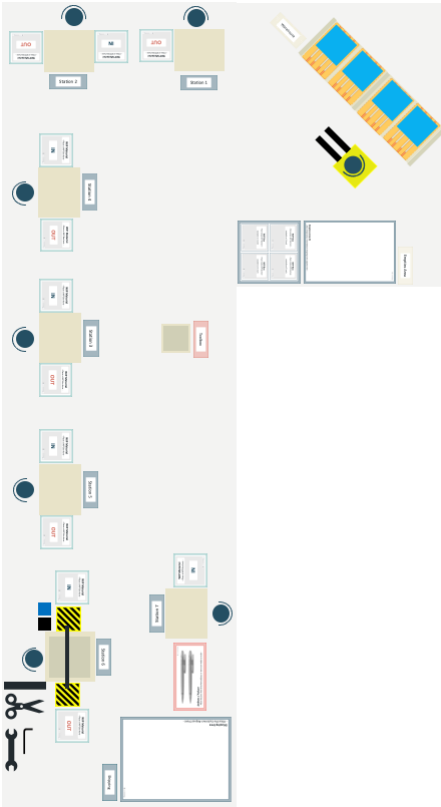
The enterprise solution also includes access to the LeanAcademy. Perfect for moderators who want to build up or refresh further lean knowledge.



Play the Factory Game in a room or online in Webinars

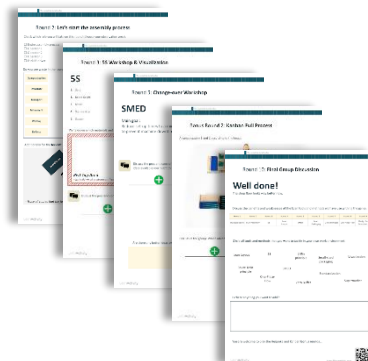
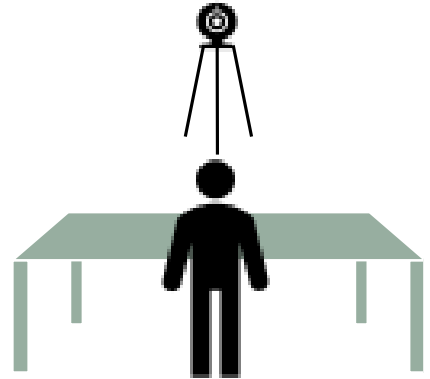
Face-to-Face (Classroom):

Play the game in full with up to 8 active participants
This is where the greatest learning successes are achieved



Online (Webinar):

- Set up your camera and train your participants using the game
- The participants follow the game and are interactively involved in the game with handouts.



All instructions & handouts are available on the Online Platform

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