

Ball Point Game

Purpose/Objectives

Purpose:

The Ball Point Game has two main goals:

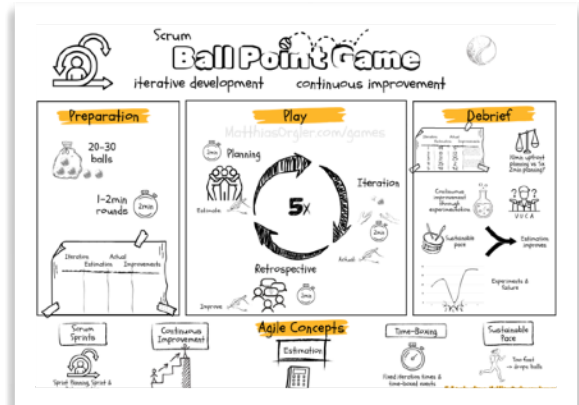
1. To learn about iterative development and the power of continuous improvement.
2. To start grasping key concepts of the Scrum framework.

Learning Objectives:

- Understand the importance of continuous improvement.
- Experience working in iterations.
- Learn about estimation based on empirical data (yesterday's weather) and the concept of velocity.
- Get introduced to Scrum concepts like sprints, retrospectives, and planning.
- Recognize what sustainable pace feels like.

Additional Notes:

- This game is a fantastic energizer, especially after a lunch break.
- It usually produces a lot of laughter and gets people physically moving.
- Be aware that some participants might have played the game before, as it's popular in the agile community. However, they often gain new insights when playing it again!



Participants

Ideal Group Size:

At least 3 people and up to about 12. For larger groups, consider splitting into separate teams.

Roles:

No specific roles are assigned in this game.



Duration

Total Time:

At least 45 minutes

- **Briefing:** 5 minutes
- **Gameplay:** 15-20 minutes
 - 5 iterations of 2 minutes each.

- 1-2 minutes after each iteration for the team to find improvements and estimate the next round.
- **Debriefing:** 15 minutes
- **Additional Time:** Allow time between rounds to collect any lost balls.
- **Optional Variation:**
 - Shorten each iteration to 1 minute.
 - Keep retrospectives and estimations to 1 minute each.
 - This makes the core game fast-paced and reduces total gameplay time to around 10 minutes.

Materials Needed

Balls:

- A collection of small balls (per team):
- Ideally, 20-40 golf practice balls.
- Alternatives: Tennis balls, plastic balls, soft balls, or table tennis balls.
- Note: If you run out of balls during an iteration, teams can reuse balls and keep count.



Timer:

A timer capable of timing 1 or 2-minute intervals to the second.

Flipchart:

- To record results of each round.
- Prepare a table with columns for:
 - Iteration number (1-5).
 - Estimation for the next round.
 - Actual points scored.
 - Improvements planned after each round.

Setup

Prepare the Balls:

Have the balls ready in a bag, box, or spread out on a table or the floor.

Set Up the Flipchart:

Draw a table with the necessary columns for tracking progress.

Arrange the Space:

Ensure there is enough room for participants to move around safely.

Round	Estimate	Result	Improvement
1	4	9	- 2 balls
2	15	25	- box on table
3	25	35	- stand closer - whole box
4		0	

Instructions

Game Rules:

- Everyone in the room is part of the game.
- Each ball must pass through the hands of every team member.
- A ball counts as 1 point when it returns to the person who started it.
- Dropped balls must start over from the beginning.
- The ball must have “air time” when passing—it must not be handed over directly.
- You cannot pass the ball to your direct neighbor left or right.
- There are no other rules than those listed here.

Gameplay Steps:

First Iteration:

- **Estimate:**
 - Before starting, ask the team to estimate how many points they will score in the first round (I always forget this 😅).
 - Record the estimate on the flipchart.
- **Play:**
 - Start the timer for 2 minutes.
 - The team begins passing balls according to the rules.
 - Observe how they approach the challenge and organize.
- **Record Results:**
 - When time is up, note the actual number of points scored on the flipchart.

Retrospective and Planning:

- **Discuss Improvements:**
 - Give the team 1-2 minutes to discuss and plan improvements.
 - Note their planned improvements on the flipchart.
- **Estimate Next Round:**
 - Ask for a new estimate based on their latest learnings.
 - Record the estimate.

Subsequent Iterations:

Repeat the play and retrospective cycle for a total of 5 iterations. Encourage the team to refine their process and experiment with new ideas each time.

Final Debrief:

After the last iteration, proceed to the debriefing session.

Facilitation Tips

Observation:

- Watch how the team's process evolves.
- Note any creative solutions or significant changes in strategy.
- Pay attention to moments when they challenge assumed constraints.

Encouraging Creativity:

- In later iterations, remind the team that any action not explicitly prohibited by the rules is allowed.

Managing Ball Supply:

- If the team runs out of balls during an iteration, allow them to reuse balls.
- Ensure someone keeps an accurate count of points.

Push vs Pull (Optional):

- In early iterations, play the role of a manager pushing work onto the team:
 - Hand balls to one person one by one.
 - Deliberately vary the speed to be too slow or too fast.
 - Observe how the team reacts—ideally, they will “fire” you and shift to a self-managed pull system.

Debriefing/Discussion

Open the Discussion:

Ask participants to share their observations and feelings about the game.

Key Questions:

- How did it feel to work in iterations?
- How did your results change over time?
- Would the results have been different if you'd planned for 5 minutes and then played for 5 minutes straight instead of in iterations?

Discussion Points:

Continuous Improvement:

- Highlight how making small improvements after each iteration led to better results.
- Emphasize learning by doing.

Estimations and Velocity:

- Discuss how estimations became more accurate over time.
- Explain the concept of velocity and “yesterday's weather” in XP and Scrum.

Experimentation and Risk-Taking:

- Note any moments when the team's points decreased due to trying new strategies.
- Stress the importance of experimentation, even if it leads to temporary setbacks.
- Velocity often decreases before reaching new heights. We learn through (failed) experiments and can improve.

Challenging Assumptions:

- Point out if the team initially limited themselves by assuming unlisted rules. Often they only throw one ball at a time or don't think of using any containers for balls.
- Relate this to how teams often adhere to unnecessary constraints in real work environments.

Push vs. Pull Systems:

- Discuss the shift from a manager pushing work to the team pulling work when ready.
- Explain how pull systems can lead to better performance and utilization.

Sustainable Pace:

- Ask which iteration felt the most productive and why. There is often an iteration in which the team finds a natural rhythm where they neither go too fast to drop balls nor too slow to have wait times. In this state the team is most productive, less stressed and tends to not drop any balls.
- Relate this to finding a sustainable pace in real projects.

Real-World Applications:

- Connect the game experience to agile practices and the Scrum framework.
- Discuss how iterations, retrospectives, and continuous improvement are vital in actual projects.
- Emphasize that drops in velocity are normal and can lead to breakthroughs.

Variations and Adaptations

Time Constraints:

- Shorten iterations to 1 minute for a faster-paced game.
- Also shorten retrospective and estimation to 1 minute total.

Different Environments:

- The game can be played almost anywhere:
 - Meeting rooms
 - Outdoor spaces like parks
 - I've played this in castles and even in the Jardin de Tuileries next to the Louvre in Paris 😊

Ball Types:

Use smaller balls (e.g., golf practice balls, table tennis balls) if you need to transport them easily.

Virtual Adaptations:

- While physical interaction is a key part of the game, virtual versions exist.
- Be aware that virtual adaptations may offer less room for creative problem-solving.
- I will add instructions for a virtual version in the future.

Learning Points Summary

Continuous Improvement:

Small, regular improvements outperform extensive upfront planning.

Learning by Doing:

Practical experience leads to better understanding and performance.

Accurate Estimations:

Estimations become more precise when based on empirical data from previous iterations.

Experimentation is Key:

Challenging the process and experimenting can lead to significant performance gains.

Self-Management:

The team self-managed and developed as well as improved their own process. No manager had to tell them how to do it.

Understanding Velocity:

Velocity may fluctuate but can reach new heights through innovation.

Iterative Work Rhythm:

Fixed-length iterations provide a steady rhythm and structure.

Importance of Retrospectives:

Regular reflection helps identify improvements and adapt processes.

Pull Systems Over Push Systems:

Teams perform best when they pull in work as they have capacity, rather than having work pushed onto them.

Sustainable Pace:

Finding a steady, manageable pace enhances productivity and team well-being.

Scrum Events:

Segue into explaining the Scrum framework. Participants already got an understanding of three of the five Scrum events: Sprint, Retrospective, and a part of Sprint Planning.

References and Acknowledgments

Origin:

The Ball Point Game is a staple in agile training and has been widely used in the community. It was originally developed by Boris Gloger to demonstrate the power of self-management and the iterative approach.

Due to the game's popularity, some participants may have played it before, but it consistently offers new insights.

Additional Resources:

- A visual cheat sheet is available to assist with facilitation.
- A video explaining how to play and facilitate the game can provide further guidance.

Note to Facilitators:

- Encourage participants to embrace the experience fully, regardless of prior exposure.
- Emphasize that repeated play can deepen understanding and reveal new learnings.

Appendices

Visual Cheat Sheet:

A handy guide to help you remember the rules and flow of the game during facilitation.

Facilitation Video:

A step-by-step explanation of the game to support your preparation.