



THE TOWER GAME

Project Management



**Educational
Foundation**
Project
Management
Institute.



What Is The Tower Game?

Project management is an approach that is followed to help ensure that all project work that must be done to create a product, service or result is understood, planned and completed within the constraints of time (the schedule), cost (the budget) and quality.

This includes:

- ✓ Determining strategies to ensure everyone's expectations are met and that all needed people and other resources, such as supplies, equipment and facilities, are identified, planned for and acquired
- ✓ Defining high-quality project standards
- ✓ Identifying potential risks and determining effective ways to manage those risks
- ✓ Procuring products and services according to the organization's procedures
- ✓ Communicating the project's progress to the people and organizations involved on a regular basis

The Tower Game

Why?

There are many games in which you have to build the tallest building. The objective of those games is mostly to focus on team collaboration.

(e.g., marshmallow challenge, the tallest tower, clip and cards, etc.)

The main difference in this game is that the tallest building isn't always the best project. There are many other variables that determine a successful project. During this game we will learn the importance of managing not just a team, but the scope, time, resources, quality, and risks required to reach a successful project.

Who?

Anybody who wants to learn project management by doing—from five years old up through any age; for people with no project management knowledge (rookies), up through project management professionals.

How?

This is a great tool to complement any other project management workshop or just to be used alone. One trainer could manage, on average, 50 participants divided into groups of 3 to 5 people.

When?

At any event or meeting when you have 45 to 60 minutes.
(10 minutes for introduction, 20 minutes for game, and 15 minutes for debriefing)

How Much?

Free! Just some minor costs for materials.
(most of them will be reused in future events)

Proven!

This game has been played many times:

- ✓ Primary and secondary schools
- ✓ Students and teachers
- ✓ University students and professors
- ✓ Postgraduate students
- ✓ Non-for-profit organizations
- ✓ Subject matter experts
- ✓ +++

How Many?

It is recommended to play the game with a minimum of 2 teams with 3 members each.

There is no maximum number of participants.

The Kit

The Tower Game kit includes Notes for the instructor, PowerPoint presentation and a spreadsheet.

Objectives

To learn these elements of project management: scope, time, cost, quality, risk, and team collaboration.

Materials per team



5 paper cups

(or any other plastic cups)



20 sticks

(brochette sticks or any other type of stick, such as plastic straws)



1 plastic bag

(to hold all the materials)

Optional materials:

- ✓ 1 tape measure per team (if you are using plastic cups and plastic straws)
- ✓ Prizes (e.g., candies, books, certificate of attendance)
- ✓ Projector to deliver the presentation

Note: The instructor will need a tape measure.



Set Up

- ✓ Before the activity, put exactly the same supplies in each bag for each group.
- ✓ Divide your class into groups of 3 to 5 people.
- ✓ Organize the groups in different areas of the room.
- ✓ Leave a free space in the room where the teams will deliver their towers.

The Game

1. Explain the Rules

Objective: Each team has to build the tallest free-standing tower it can, as fast as possible, using the minimum materials as possible, and avoiding too much risk.

Scope: The height of the tower must be at least 50 centimeters (20 inches). The height will be measured by the tallest cup, so any stick over the cup won't count. This minimum height doesn't include any extra prize for time or cost savings.

Note: If the game is being played by subject matter experts (e.g., engineers, architects, Project Management Professional (PMP)® credential holders, etc.) you can add another 20 centimeters (10 inches) to the minimum scope.

Time: The tower must be delivered within 20 minutes. Every minute not used will add a prize of 2 centimeters (1 inch).

Cost: The only resources that can be used are the ones provided in the bag. The bag could be used to build the tower. Each resource not broken and not used in the tower (cup and/or stick) will add a prize of 2 centimeters (1 inch).

Risk: Each team should evaluate the risk of using all of their time and resources to build a very tall tower and plan for contingency reserves.

Quality: The free-standing tower will be built in one place and will then be delivered to a different place defined by the instructor. The team will put the tower on the place defined by the instructor without any kind of adjustments or extra construction. The tower must be strong enough to not fall down until the end of the game (end of the debriefing).

Successful project: Minimum of 50 centimeters (20 inches), in less than 20 minutes, using the minimum number of materials, and the tower must stand up alone for at least 20 minutes.

The winner: The tallest building adding the extra height for time and resources savings.

2. Start the Game

- ✓ Give one bag of materials to each team.
- ✓ Start the countdown timer to 20 minutes.
- ✓ Let the building begin.
- ✓ Don't give any extra time for planning or organizing teams.



You Can Download
a Free Timer

<http://cool-timer.en.uptodown.com>

<http://www.timeleft.info>

<http://www.orzeszek.org/dev/timer>

3. Finish the Game

When a team finished, measure the height of the tower and write the remaining time (round up the minutes to the closest number) and the number of resources not used. Write the results on a spreadsheet and don't show them to the participants until the end of the debriefing.



Examples

Don't mention any of these examples before the game.



MBA Students – Engineers



Primary School – 10-year-old kids



Secondary School – Teachers



PMI Volunteer Assisting with Judging



Teachers Participating in Tower Game

Debriefing

The facilitators should ask the audience some of these questions:

- ✓ What challenges did you encounter and how did you overcome them?
- ✓ Did you build the tallest tower you could? Why or why not?
- ✓ How does the tower game compare to your daily projects?

Lessons Learned

Scope: Prototyping and a strong base are key variables to getting a better height.

For example: [Marshmallow challenge](#) (It is recommended showing this video during the debriefing).

Time/Cost: The tallest building isn't always the best. Many teams usually get a better final result than others because they manage not just scope (height), but time (faster) and resources (savings).

Quality: Some teams usually try to bypass the rules by fixing their towers in the restricted area to prevent their towers from falling down. No matter how tall, fast, and cheap the building, without quality you have a failed project.

Risk: If a team delivers its tower just a couple of minutes before the deadline, this will be a great example of taking too much risk and you can eliminate that group from the competition. However, don't mention "time risk management" before the team finishes the game.

People: The teams that find a leader (project manager) and work as a team usually perform better than those fighting for their individual ideas to make a taller building. The most important element of a successful project is a motivated team working together in a coordinated way.

Related Videos

[Non-for-profit organization](#) | [School teachers](#) | [Primary school kids \(Spanish\)](#)

Final Words

There are many other ways to improve this game. Please feel free to edit whatever you need while still maintaining the PMIEF Copyrights.

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