

Screwdriver

Field of application	<ul style="list-style-type: none">#Problem Analysis#Strategic planning#Product design#Service design#Process design#Creativity skills development
Resume / Brief description	<p>This game will allow participants to find a way to design original solutions to a problem or to improve existing ones.</p> <p>What does a screwdriver do?</p> <p>A screwdriver screws (installs) and unscrews (removes) screws.</p> <p>What a powerful idea!</p> <p>But... What is a screw? I mean, if we are talking about a problem, what is a screw? In other words: What is a “creativity screw”?</p> <p>We could say that a creativity screw is something that fixed our understanding of some situation in only one way. And that is a bad thing when you are trying to be innovative. Because that way of understanding the problem is based on our prior knowledge and past experiences and, for the same reason, traditional and non “novel”.</p> <p>So, if we want to find original solutions, if we want to be capable of identifying new action routes, we must take out that screw.</p> <p>Following three steps, this game will help innovation and design teams to find new ways to solve a problem or add value to a design.</p>
Target group	<ul style="list-style-type: none">• Entrepreneurs• I&D teams• Innovation teams• Students• Community
Group size	4 - 20 people
Objectives	This game will help a team or an individual working on a problem avoid mental fixation and explore new ways of thinking.
Requirements	<p>Material:</p> <ul style="list-style-type: none">• Paper cards or Post-its• Formats• Virtual board (Jamboard, Miro, etc.)
Implementation - Overview	<p>This technique goes on three phases:</p> <p>Screws inventory (List of impossibles)</p> <p>Unscrewing screws (On a competition basis)</p> <p>Moving in new ways (Generating new solutions)</p>



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Implementation - Guidelines

The activity is divided into 3 phases:

1. Screws inventory

To do this, follow the steps below:

Ask everybody in the group to picture the ideal outcome or solution state for the problem. Ask them to imagine the more ambitious (even if impossible) results.

Use the format “Screws inventory” to identify the most critical screws. A critical screw is a “fact” or “believing” that makes impossible either the most desirable solution or several good solutions. A list of 2-10 critical screws would be ideal.

2. Unscrewing screws

This is the most important part. Here, the participants will try to view the problem from different perspectives to find new possible solutions.

Divide the participants into teams (2-4 people per team).

Select one of the most critical screws. Write it down in a whiteboard or print it on a paper to deliver to each team.

Give the teams a fixed time (5´ to 15´ would be a good time) to find ways to “unscrew” that screw. Explain to them that the “unscrewing” process involves trying to find creative ways to remove or avoid that limitation.

3. Moving in new ways

In the third phase, the teams show their ways to “unscrew” the critical screw presented. While each team is doing its proposal, every other participant will imagine ways to use that “trick” to solve the problem and write them in the “Ideas catcher” format.

The exercise can be repeated several times in order to cover the most important “critical screws”

Results and Close-up of sessions

The ideas collected in the “Ideas catcher” formats are new and powerful routes to solve the problem. You can put all the formats on the wall and allow the participants to read them again.

The next step will involve selecting and improving the ideas generated. You can use some of the Optimization tools

Variations

Online version:

In order to use this tool in an online format, you can use a shared board where you can include the two formats and everyone can add their ideas using Post-its



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<p>Example of application:</p>	<p>As an exercise to improve the quality of urban transportation in a city, the participants of a comitee, where asked to give ideas of how the city could improve its transportation system. A group of 12 participants was divided into three small teams of 4 participants each.</p> <p>Phase 1 Before going into ideation step, the whole group worked on how the ideal transportation system could be. Several aspects were defined, including the following:</p> <ul style="list-style-type: none"> - Everyone must arrive on time to its job - Being comfortable while commuting is desirable - Doing something useful in the meantime - Low contamination system - Could transportation be funny? <p>The group worked on finding the "Screws" making impossible the ideal solutions. Several screws were identified, including:</p> <ul style="list-style-type: none"> - The people have to go to their offices because all the information they need to work is stored there - It is out of our reach to entertain people during their commuting time - The only way to motivate people to attend the traffic laws is punish them everytime the broke those laws <p>Phase 2</p> <p>The teams worked on each screw to try to remove it. In other words they asked themselves: "How can we change the fact that all the information needed to work is stored in the office?" or "How can we change the idea that we cannot entertain people during their commute?" or "Why are we accepting that the only way to motivate people to follow traffic rules is using punishment?"</p> <p>Phase 3</p> <p>Each team presented its solutions to "unscrew" each of the screws identified.</p> <p>All the participantes wrote down all the ideas they could, on how to make those solutions viable in the actual context.</p> <p>At the end of the session, more than 30 ideas were consolidated into a solution document. This document was used as a base for further work.</p>
<p>Templates, Graphics for download</p>	<p>Screwdriver Format (attachement)</p>
<p>Additional format/references</p>	<p>How to use Jamboard https://www.youtube.com/watch?v=4haCz1kV57Q&ab_channel=GoogleWorkspace</p> <p>Reading: Overcoming Fixation: Creative Problem Solving and Retrieval-Induced Forgetting https://people.ucsc.edu/~bcstorm/sa_2010.pdf</p>

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