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THE MORE YOU KNOW HOW TO **FACILITATE** **COLLABORATION AND** **CO-CREATION,** THE EASIER IT WILL BE FOR YOU TO SCALE.

You are creating amazing solutions, new tech products and services that require the development and use of people's participation. You would need to know how to transfer the information about your system, and how to engage and facilitate a learning experience in which other people can become ambassadors of your project and in turn teach others to do the same. This resource can help you learn how to facilitate collaboration and knowledge transfer in a group, through hands-on activities.

Type:

#workshop guidelines

Subject:

#maker learning

Keywords:

#mentoring hands-on courses

#creative learning

#knowledge transfer



LEGO Challenge

What:

Accomplishing an individual and group task without verbal communication.

Why:

Collaboration is essential in maker education.

This challenge shows how groups work together and what skills are important while collaborating and working on a complex task.

Time: 45 - 60 minutes.

Necessities: One kit per group: LEGO blocks, LEGO board, printed assignments. Optional: flip-over charts and pencils.





1. Put a kit on each table and form groups of 8 to 14 people. No more, no less.
2. There must be absolute silence from the time you explain the overall group task and give out the individual assignments. No talking from that moment on. Before assignments are given, explain what a layer is and what a brick is. When each person receives their assignment, they must read it in silence. If they do not understand the task, they may ask the instructor for clarification. It is crucial that each person understands their assignment because if they don't and proceed anyway, they may cause the entire team to fail.
3. Proceed to give the following instructions: "You are now, as a group, going to build a structure with the LEGOs in front of you. In a moment, you will each be given a note with an assignment on it. This is your personal assignment during the exercise. The message on the note is to be kept secret from the other members of the group."
4. Give the notes to the candidates.
5. Give some more instructions: "You will now have 15 minutes to build your structure. The work will take place in complete silence. I will let you know when there are just 3 minutes left". Allow an additional 5 minutes if needed.
6. When a group is finished, ask them to place their hands behind their back and on the count of three, ask them to show on their fingers the level of completion of the task, with ten fingers up meaning that their task is 100% complete, nine fingers up meaning 90% and so on. If they are not all finished, then request that they support each other to complete as many tasks to a 10-finger level as possible, in 5 minutes.
7. After 5 minutes, read this out: "You will now, individually, read out your assignments to the group, and explain whether or not you completed them. Then explain how you view your group's ability to work together."
8. Optional: reflect on the collaboration by discussing the positive attributes the team needs to perform, and the negative attributes that need to be left behind.

About the cookbook: Teacher Maker Camp

In 2015, FabLab Amsterdam organized the first Teacher Maker Camp at the Waag. In this four-day program, participants learned how to turn teachers into makers; how to transfer the passion for and the experience with maker education to teachers, and how to help teachers develop a maker mindset, so they also hone their technical and creative skills. The cookbook includes resources from other initiatives voted to the management of co-creation processes.

www.waag.org/en/project/teacher-maker-camp

Source:

Lego Challenge from Kaospilot.dk in M. Hamelink, I. Boszhard, K. Vermeulen (2015), Teacher Maker Camp 10 recipes to help teachers (re)discover their inner-inventor and get skilled in maker education, Waag Society, www.waag.org/sites/waag/files/public/media/publicaties/teacher-maker-camp-cookbook_0.pdf, CC BY NC SA

Related resources

Waag Co-creation Toolkit, www.co-creation.waag.org
Lego Challenge, Kaospilot, www.kaospilot.dk