Students take action 4 the climate

CREATING & INNOVATING

DESIGNING WITH OTHER PEOPLE'S NEEDS IN MIND
SKILLS LAB 2

OBJECTIVES-METHOD

Fast-paced
The teacher is strict with the time and encourages fast-paced switching by calling out the remaining time and the activity's end. (Limited time increases individual and group energy and creativity.)

- Presentation of design thinking methodology
- Video
- Interviews
- Questionnaire for interviews
- Presentation on problem statement
- Problem statement examples
- Framing the problem from the user's point of view
  - Carbon Footprint of the Class
  - Green
  - Plastics
  - Paper
  - General tips

OUR METHODOLOGY

5' • PRESENTATION • DESIGN THINKING METHODOLOGY

Students revisit the tasks covered in the previous lesson. The teacher introduces the "Design Thinking" methodology:

"You now have the problem statement in front of you as captured by you. How might we come up with fresh and effective ideas to solve the problem and reduce energy losses and the overall carbon footprint of the school? You may have already started thinking of solutions. You shouldn't! This is not the way forward. Instead, it will take you on the wrong track, it's a recipe for failed approaches!"

Even the best solutions and ideas for a problem very often fail in their implementation because they do not take into account the needs of the people who are going to apply them. For example, we could design a pedal desk for students to power the lights by pedaling during class time, converting kinetic energy into electricity; that would be really cool, but how many students can concentrate in class while cycling? We can design a system to minimize food waste, but, if currently no one throws away food in this school, what's the point? The solutions we come up with have to stem from true needs.

The teacher presents the "Design Thinking" slide. Additionally (or alternatively) he/she shows the video. As solution designers, we follow 6 steps to deliver solutions that all students and teachers will implement at our school!

- ✓ Step 1: We listen carefully to others
- ✓ Step 2: We state the problem from their perspective
- ✓ Step 3: Now is the time to consider several different ideas so as to find the best one
- ✓ Step 4: We develop the idea on a small scale
- ✓ Step 5: We present the idea to others, listen to their comments and we refine the idea
- ✓ Step 6: Ready for implementation!

This method is based on teamwork. Less talk, more action! So, let's start with step 1.

45'

PRESENTATION, INTERVIEW SHEET

IN PLENARY & IN GROUPS

ΔΕΞΙΟΤΗΤΕΣ

- Active listening/ empathy
- The art of interviewing
- Teamwork
- Stepping into other's shoes: Problem analysis from different perspectives.
- Logical thinking
- Synthetic thinking
- Empathy

TILL NEXT TIME

Students use the questionnaire with other classmates and teachers to record their knowledge and opinions; they talk to the administration to gather the necessary data.

INTERVIEWS

20' • WORK IN GROUPS

It's time to hear what others think about the problem. The students, working in groups, look at the questionnaire and discuss it among themselves. Questions are addressed and resolved.

The students then pair up with members of different teams and interview them, alternating between the roles of interviewer and interviewee, 5' + 5'. The teacher keeps track of time and gives a signal for switching; he/she also calls out the remaining time, e.g. "one/two more minutes". The students may engage the teacher in the interviews.

After 10 minutes of interviewing, the teams come together again to process their findings. What struck them in particular? What do other students know and think about the school's carbon footprint? Has everyone understood the same things from our classes?

This is a first hands-on exercise with interviews to help them see how the questionnaire works and what they should look out for. The students are now divided into three groups: those who will interview other students, those who will interview teachers and those who will interview the administration until next time.

HOW MIGHT WE...

10' • WORK IN GROUPS

Students will work in their teams and state the problem they want to solve by taking into account the findings of the interviews.

The teacher gives instructions. The art of problem statement is crucial. Different definitions of a problem may lead to different solutions. The problem should be framed in a human-centered way. For example, instead of: "How do we minimize the carbon footprint of paper waste...", use the wording: "How might we help the students (or teachers or the families) at school minimize paper waste". Show the Presentation on Problem Statement.

PROBLEM STATEMENT

10' • WORK IN GROUPS

The teams start trying to frame the problem from the user's point of view (i.e. the students that were interviewed).

They develop a first rough draft which will be reviewed after the teams have completed their interviews. In case of difficulty, they can use the problem statement examples.