MM6: Problem to Pitch Marine Plastic Waste

Implementation

Lesson 6: Worst IDEA Ever

Subjects: Design, Technology, Maths, Environment, Science, Sustainability

Lesson Title and Summary: Worst IDEA Ever

This lesson enables students to develop an understanding of how to think with agility, creativity, and resourcefulness. Learners will go through the process of transforming a bad idea into the potential starting point of a workable idea. This supports the development of ideation and the capacity to look for opportunities to iterate and improve on existing ideas.

Learners are introduced to open source concepts, such as iteration, collaboration, and ideation.

Vocabulary: Agile thinking, Collaboration, Idea Generation, Ideation, Iteration, Remix

In this lesson, the learner will:

- explore how to evolve ideas
- consider opportunities to improve ideas
- feel comfortable with exploring experimental approaches
- develop skills around idea generation
- learn to transfer and apply skills

Materials:

- Teachers' Guide: Worst IDEA Ever
- Pens, pencils
- Large pieces of paper
- White board

ACTIVITY INSTRUCTIONS

Activity 1 - Worst Idea Ever (20 mins)

1. Organise the learners into groups of 2 or 3.
2. Explain the activity (see Teachers' Guide: Worst Game Ever) learners will work in their groups to come up
with 6-8 examples of the worst ideas ever. These will then be swapped amongst the groups
to be transformed in activity 2.
3. Tutor to give some real-world starting ideas – Teachers' Guide.
4. After 15 minutes ask students to share one or two of their worst ideas ever.

Activity 2 - Transforming Ideas – Rapid Response (20 mins)

1. Gather up the sheets from the groups and begin to swap them with other groups.
2. Give some examples of a transformation of the worst idea into a good idea.
3. Give students 15 mins to transform the examples on the sheets into good ideas.

Activity 3 - Generating and Remixing Ideas – Rapid Response (15 mins)

1. Discuss some of the ideas that have been generated as a whole class.

- How easy/difficult was it to generate bad ideas? Why?
- How easy/difficult was it to remix the ideas into good ones? Why?
- How could this process be used in different ways (not just about products)?

2. Use the activity to introduce key ideas of open source:

- Watch the Open Source As Explained by Lego video - see Media Box.
- Give each learner one of the other open source video links (see Media Box) to watch at home.
- They can bullet point the main ideas in the video and share it in class during the following lesson.

REFLECTIVE EXERCISE: 3-2-1
- Three things they feel they have learnt from the tasks
- Two things they found most interesting and would like to explore more
- One – their opinion they have about the tasks

Use Post-its or a mentimeter survey - www.mentimeter.com - to gather reflections

EXTENSION / REDUCTION ACTIVITIES

Reduction: For a shorter class, complete Activity 1 and 2 with less examples (i.e. 3-5 ideas).

Extension: For a longer class, extend discussion time around the process. Ask learners to select 1-2 of the remixed good ideas and complete a Empathy Map from lesson 2.

Option 2: Spend more time examining the concept of open source and the projects (Activity 3).

Extend the discussion and encourage learners to research the open source projects in the media box as a Flipped Classroom for a possible discussion next class – see Media Box. Allocate the open source projects equally across the learners, so there are a number of learners watching each video. In the next class, begin with small group discussion around each project / video watched. Follow up with all group feedback on each video / project and undertake a collective discussion.

MEDIA BOX: (materials, online video links, extra resources, case studies etc)

- What is open source? Explained by Lego (4 min 40) https://www.youtube.com/watch?v=a8fHgx9mE5U

- Open-source culture (1:10min) https://www.youtube.com/watch?v=gobBQwtFeyk

- Crispr Gene Editing (4:22min) https://www.youtube.com/watch?v=1VaG3DpFXjs

- Open Source Aquaponic Greenhouse (3:45min) https://vimeo.com/141252002

- Open Source Ventilator https://opensourceventilator.ie/

LOCAL TRIP / EXPERTISE / ADDITIONAL WORK AND ASSESSMENTS

Stakeholder Mapping worksheet - supports students to focus on their local place, its issues and its audience. This can be linked into their project as part of the prototyping process.
Link to SDG 4 - Supporting skills https://www.codesres.ie/sdg-4-supporting-resources
Sign up to access SDG 4 Web quest lesson plan, Interview skills.

Learners can link into their local FLAG region to find out about local initiatives or contact BIM to ask about initiatives in their area https://bim.ie/fisheries/advisory-services/fisheries-local-action-groups-flags/

MM6: L6TG WORST IDEA EVER

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The session is an iteration of the 'Worst Possible Idea' a term coined by author, president and co-founder, Bryan Mattimore, The Growth Engine Company LLC.

As a facilitation tool for ideation, the 'Worst Possible Idea' (WPI) turns the process of developing ideas upside down. Rather than having the pressure of coming up with novel or innovative ideas, WPI facilitates agile creative thinking in a relaxed, fun, collaborative atmosphere. The process is used by professionals, design studios, within hackathons, or start-up weekends, and has been shown to boost confidence, challenge assumptions, and offers a more inclusive approach to ideation. No one fears stating the worst possible ideas, a process loaded with fun and laughter and maybe a few groans.

This session introduces learners' to this concept focused around the worst idea ever and a playful process of transforming how they can be formed into the foundation for possible good ideas.

To start, explain the activity using the following examples of bad to good ideas:
- a sealed metal tube for a boat / as transport - add an engine / design and pressurise it (submarine), add windows and wings (aeroplane), different wheels and slick design (bullet train).
- a chocolate teapot - why is it a bad idea? It would melt. However, the 'hot chocolate spoon' that retails for about €4-5 uses that quality as a design feature to create a gift / treat product.
- windows you can't see out of / opaque windows - this how 'bathroom' or privacy glass started.

To facilitate the worst idea ever, have groups:

1. Come up with as many bad ideas as they can. 8 -10 is a good number to aim for.
2. Ask them to list why they are bad ideas, listing all the properties of what makes them bad as this is what forms the foundation of the transformation.
3. List what makes the WORST of these ideas SO terrible.

Here, you can decide whether to do a class activity or just swap the groups work, it is important no group works on their own bad ideas. Then either as a class (you can still swap the groups' work and ask each group to offer up ideas to work on collaboratively a class) or within their groups.

1. Begin with searching for the OPPOSITE of the WORST attribute of each idea.
2. Then substitute something else in for the worst attribute.
3. Mix and match various awful ideas to see what happens - all the time considering how to make them good ideas or how they might become good attributes for a product, e.g. addresses a need or is sustainable.