

# - Teacher guidelines for case study - Green innovation for a healthier life



## Generic green skills

### Cognitive competencies:

- Innovation skills to identify opportunities and create new strategies to respond to green challenges
- Ability to think about things differently

### Interpersonal competencies

- Strategic and leadership skills to enable policymakers and business executives to set the right incentives and create conditions conducive to cleaner production, cleaner transportation, etc.
- Marketing skills to promote greener products and services
- Consulting skills to advise consumers about green solutions and to spread the use of green technologies



## Learning objective

### Students are expected to:

1. Understand how green innovation can contribute to addressing sustainability issues.
2. Explore people's acceptance of green innovation products.
3. Promote green innovation products to relevant stakeholders based on the survey results.



## Format

Small group work



## Role of teacher

Facilitator



## Resources needed

A3 paper, pens, colored pencils, student worksheet, case study



## Time required

2 hours



## Assessment

### The assessment will be based on:

1. The design of the survey.
2. The suggestions generated based on the results and findings of the survey, to promote the green innovation products to relevant stakeholders.

## Suggested teaching and learning sequences

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### Before the class:

1. Ask students to read the case study, “Green innovation for a healthier life”, and think about:
    - a. What is green innovation?
    - b. How does green innovation help address sustainability issues and increase the quality of life of citizens?
    - c. Are there any other examples of local design that are based on green innovation?
  2. Ask students to write down their ideas and prepare to share the findings with their group.
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### During the class:

#### 1. Group sharing and presentation

- a. Group students into groups.
- b. Facilitate students to share their answers about the pre-class questions in their group and summarize the group discussion as suggested:
  - For question a., use a mind map to summarize the group's ideas.
  - For question b., list the sustainability issues that the green innovation products introduced in this case study can help to address, and explain how they increase quality of life.
  - For question c., introduce the examples you find and clearly explain how they work.
- c. Invite 2-3 groups to share their group work with the class and summarize students' shared ideas using different graphs.

#### 2. Design a survey to explore people’s acceptance (60 mins)

- a. Ask students to choose one green innovation product from the case study to explore people’s acceptance/interest. How would people like to use it, and would it encourage them to increase their exercise time? Facilitate students to discuss these ideas in their group.
- b. Suggest students decide where they will conduct the survey, based on their choice of product, and who will be their participants. You can give students an example to inspire them, for example, if they choose to explore people’s acceptance of the Eco Gym, then they may need to identify which gyms they will target, as well as the ages of the gym members.
- c. Suggest students design the survey as a questionnaire, an interview or a mixed method, so they can use both a questionnaire and an interview.
- d. Help students to formulate the questions for their survey with their groupmates.
- e. Facilitate students to discuss how they can approach their target groups.

**Below are the suggestions that may help students to design the survey. You can explain these to them and provide some examples.**

- i. Ask more closed-ended questions than open-ended questions (particularly at the beginning)
  - Ensure the survey questions are neutral
  - Keep a balanced set of answer choices
  - Don’t ask for two things at once
  - Make sure the questions are all different from each other
  - Keep some of the questions optional to answer
  - Do a test drive – Share the survey with another group and ask them to answer your questions. See if they understood your meaning and also whether you got the required information from their answers.

- ii. Suggest students use the internet to create a survey, such as Google forms and Survey Monkey. Students may check the following website for tips about creating survey questions.  
<https://www.surveymonkey.com/mp/writing-survey-questions/>

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### After the class:

Ask students to:

1. Finalize their survey and hand in to you for comments.
2. Conduct the survey according to their group plan.
3. After the data collection, analyze the data and write up the results and findings.
4. Generate some suggestions to promote the selected green innovation product to relevant stakeholders, according to the survey results and findings. For example, suggest the government provide incentives or subsidies to the gym center that is equipped with equipment that captures energy from people's workouts and turns it into electricity.

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### Suggested answers/examples for the activities

#### 1. Group sharing and presentation

- a. What is green innovation?

Green innovation is any form of innovation aimed at significantly and demonstrably progressing towards the goal of sustainable development, by reducing impacts on the environment or achieving a more efficient and responsible use of natural resources, including energy.

- b. How does green innovation help address sustainability issues and increase the quality of life of citizens?

The green innovation products introduced in this case study can help to address sustainability issues related to health and well-being, energy conservation, green electricity, and carbon emissions. The improvement of all these issues can directly improve the quality of life of citizens. For example, the new flooring tech that generates electricity through walking does not only encourage people to walk more instead of using a variety of automated tools and equipment (cars, elevators, etc.), but also reduces the carbon generated by electricity production as well as the use of fuel for travel, such as in cars.

- c. Are there any other examples of local design that are based on green innovation?

UNICEF (Global Office of Innovation) introduced two innovative designs that are based on the local context of Mongolia. Please refer to:

Redesigning the Mongolian Ger: <https://www.youtube.com/watch?v=OeSXBC7wrHg>

Bathrooms on the move: <https://www.unicef.org/innovation/stories/bathrooms-move>

## 2. Design a survey to explore people's acceptance

Below are some sample interview questions that students can use as examples to demonstrate how to formulate questions for the survey that focus on exploring people's acceptance/interest.

- In what way do you think the washing machine powered by feet might be helpful to you? Would you buy it? Why?
- If you knew that the gym is going to be equipped with Eco equipment, would you go there more often?
- Do you think the eco-cycling equipment, which turns your workout into electricity, can increase your motivation for doing more exercise?
- Do you think the green power-generating bike-table can help to address any health issues? How would you like to use it?
- The department of urban infrastructure decides to use the new flooring tech that generates electricity through walking to renovate some roads in your city. Where do you think would be some good locations for this?

You can suggest students use key words that are relevant to motivation, engagement, helpfulness, and interest to formulate the survey questions.

### Reference:

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