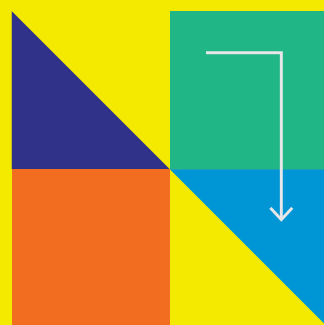
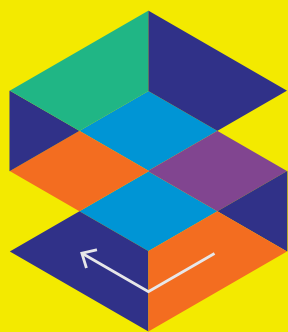
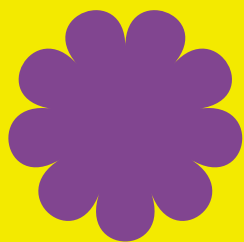


POLYU JOCKEY CLUB “OPERATION SOINNO”

理大賽馬會社創「騷·In·廬」



SOINNO DESIGN EDUCATION 啟迪創新習作 2021—2024



主辦單位 ORGANIZER

THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

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Dear Facilitator,

This teaching kit was developed by our team to enable you, the facilitator, to develop your own project in design education for secondary school students.

This kit includes a guide to the tools that are available to you to facilitate teaching and learning in the project.

Solnno Design Education Team

PolyU Jockey Club "Operation Solnno"



SOINNO DESIGN EDUCATION

啟迪創新習作

The unpredictability of the future not only challenges our educational systems but also the teachers and students embedded within them. How do we prepare students for the increasingly complex global issues facing us today? Preparing them to be adaptable and innovative seems to be the answer.

Soinno Design Education under the PolyU Jockey Club "Operation Soinno" funded by The Hong Kong Jockey Club Charities Trust builds on the existing curriculum while carving out a space for secondary school students to contemplate current affairs and learn the essential skills they need to thrive in society. We invite schools and educators to work with us to infuse social innovation and design thinking into secondary school education. The programme encourages a holistic understanding of various academic disciplines by engaging students in activities based on thinking and making. Students will find solutions to real-world problems and generate innovative ideas to create a better future.

There are three major building blocks in the design of the programme: Design Playing, Design Thinking and Design Making.

"We design through playing, Thinking through making."

Design Playing

Specific design games are designed for students to experience the design process. These games are like teasers; they allow students to gain knowledge through active exploration and problem-solving. Although it is a separate block, the major elements of gamification of both the design process and education are also defused into different blocks of the programme.

Design Thinking

Design thinking is embedded in the programme as a process of leading students to understand complex social issues with a people-oriented approach and systematic thinking process. Students are encouraged to collect primary data and organise information using visualisation techniques. They also learn how to come up with innovative solutions.

Design Making

This block is all about learning-by-making, as students learn to evaluate and develop their ideas by making and testing prototypes. It is also essential for enabling students to present their views on issues and consolidate their learning.

4



Tool-based Learning

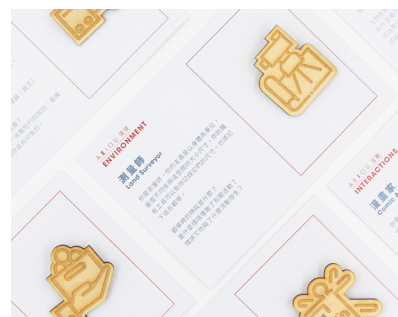
Your role as the facilitator is to lead students through a design process to tackle a certain social issue in the design process.

Our team has developed different tools for you to use in leading students to explore and design different solutions. The basic pedagogical setup is built around modular sessions, with each session planned around the use of different tools. The order and combination of the modular sessions are flexible and for you to decide upon.

With reference to the theory of constructivism in education, which emphasises how students actively 'construct' knowledge out of their experiences, the tools presented here serve as 'scaffolding' (in Vygotsky's sense) for students to gain creative confidence. Your main role as a facilitator is to guide students through their own creative experiences using these tools.

Many of the tools are designed to facilitate collaborative problem-solving. Besides the particular purposes of different tools, they have mostly been designed to create situations in which students design together, and thus to encourage collective effort and discussion.

All of the tools presented in this guide are open to adaptation. Although there is a guide for every tool, these guides are merely suggestions and you are always free to use the tools in whatever way you believe is most appropriate for your facilitation.



Learning Design

The aim of this kit is to lead students through a design process, in which a problem is tackled in a 'designerly' way. It would be great if some of the students discovered an interest in design and set their future path accordingly. The main purpose, however, is to highlight the designerly way of thinking and doing as a set of transferable skills.

Design Thinking

Design thinking has loose roots in 'designerly thinking'. The now familiar idea of design thinking was first taught in the 1970s by designers who sought to help management scholars and practitioners understand the nature and importance of design. From the very beginning, therefore, design thinking was developed for non-designers and for application to fields other than design. It was later popularised by the design and innovation firm IDEO and the Institute of Design at Stanford University, otherwise known as d.school.

Design thinking is commonly understood as approaching a problem with the following 5-step process:



However, as former CEO Tim Brown stated, design thinking is better defined as a way of 'thinking like a designer'. This means that it is more of a mind-set, or if it is a process then it is one defined not by steps but by the characteristics of human-centredness, integrated thinking, empathy, optimism, experimentalism and collaboration.

Extended reading:

Brown, T. (2009), "Design Thinking." Harvard Business Review, June: 84-92

Kimbell, L. (2011) Rethinking Design Thinking: Part I. Design and Culture, 3, 285-306.
