REFLECTING ON A SIMULATION ABOUT POVERTY

Submitted by Michelle O'Dea, 2026, while serving as CAS Coordinator at Sha Tin College, Hong Kong

LEARNING PLAN OVERVIEW

Subject(s)	• Service Learning • Global Citizenship Education
Grade Level (s)	High School (ages 14-18)
Systems Tool(s)	• Sustainability Compass • Systems Iceberg
Purpose of Using Tool	• Critical Thinking • Discussion • Reflection
Summary	Students will use the Sustainability Compass to identify the different aspects of poverty they encountered or have knowledge of in order to gain a holistic view of poverty as well as recognising the interconnectedness of these factors. In the second lesson they will then use the Systems Iceberg to dig deeper to examine the root causes of poverty and identify leverage points that could be used to make change.

Learning Objectives

- Students develop empathy for those who are less fortunate than themselves.
- Using the Systems Iceberg, students can distinguish between surface-level events, recurring patterns/trends, underlying structures, and mental models that perpetuate poverty cycles and use these to identify leverage points where changes could be made.
- Students can examine poverty holistically by using the four lenses of the Sustainability Compass and identify how the factors are interconnected and interdependent.

Material and Settings

Materials:

- The Sustainability Compass and the Systems Iceberg printed on A3 paper (1 of each per group)
- Markers
- Pens
- Post-it notes

Resources:

- Computer for the teacher
- Projector and screen
- Internet access
- Miro website or app or Canva

Setting:

- Students will be in groups of 4 - 5 around tables (approx. 40 groups)

Learning Context

Participants: Year 12 (UK)/ Grade 11 (US)

Number of students: 160 (whole year group together)

Timing: Beginning of the school year as part of their induction programme to the IB DP CAS programme

Lesson length: 2 x 1 hour sessions

Location: school hall

Background: One or two days (half the year went on two different days) prior to the lesson students attended the "Struggle for survival (paper bag simulation)" run by Crossroads, a local NGO.

Purpose of Using the Systems Thinking Tools

The Sustainability Compass allows students to see the issue of poverty holistically and how the different factors are connected. I then wanted the students to investigate the root causes of poverty rather than just temporarily address the events that everyone can see, to demonstrate that that sort of thinking won't create long-term change.

Impact on Participant Learning

Students were engaged during both lessons and there were plenty of fruitful conversations taking place. On average, students rated their knowledge of the issue of poverty as 6.3 before going to Crossroads and doing the Sustainability Compass and the Systems Iceberg. After completing the Sustainability Compass they rated their knowledge as 7.775 and 7.8125 after the Systems Iceberg. I was happy with this perceived improvement given the limited time I had with the students to complete the activities and the fact that some students were overly confident when rating their knowledge of poverty as 10/10 even before participating in the simulation or completing the Sustainability Compass and Systems Iceberg.

Learning Plan Step-by-step Description

Lesson 1 (1 hour)

1. Tell students that we are going to reflect on the simulation in which they all participated at Crossroads.
2. Briefly explain about systems and why they are important. "A system is a set of interconnected, dynamic elements that work together towards a common goal." (Compass Education)
3. Students give examples of systems.
4. Briefly discuss their understanding of sustainability and expand their definition. "Sustainability is primarily determined by the ability to view issues from multiple perspectives, recognise systemic interconnections, and think and act in a way that leads to positive change." (Compass Education)
5. Show this explanation video on how to use the Sustainability Compass.
6. In their groups, students discuss one factor that could go into each quadrant of the Sustainability Compass related to poverty.
7. As a whole group, students share their ideas.
8. Students work on their Sustainability Compass by following the PATH method, however they do not draw any arrows yet.
9. Pause to discuss any issues or ideas. Create a collaborative Sustainability Compass on the big screen using MIRO.
10. Discuss possible connections. Draw a few arrows on the collaborative compass.
11. Students continue to work on their Sustainability Compass but now making connections with arrows.
12. As a whole group, discuss connections people found.
13. One person from each group will take a photo of their Sustainability Compass and share it with their group so that they can refer back to it next lesson.
14. Debrief: Discuss how the Sustainability Compass helped broaden their understanding of poverty.

Lesson 2 (1 hour)

1. A brief reminder of the Sustainability Compass that they completed about poverty last lesson. Show the one we created as a group.
2. Tell students that today we are going to dig a little deeper into the system that is poverty. Remind them of the definition of a system.
3. Introduce the Systems Iceberg.
4. Show this explanation video on how to use the Systems Iceberg.
5. In their groups, students discuss one factor that fits into the events layer of the Systems Iceberg related to poverty.
6. As a whole group, students share their ideas.
7. Repeat steps 5 & 6 for the remaining layers. Taking time to discuss each layer before moving onto the next one.
8. Students continue to complete their Systems Iceberg by working downwards.
9. Pause to discuss any issues or ideas. Create a collaborative Systems Iceberg on the big screen using MIRO.
10. Students continue to complete their Systems Iceberg by going downwards.
11. Come together as a group to add to the collaborative Systems Iceberg.
12. Discuss possible leverage points where change could occur.
13. Debrief: Discuss how the Systems Iceberg helped them delve deeper into the different levels of the system in order to find possible areas in which they could create impact.
14. Complete brief evaluation survey about how their knowledge and understanding changed.

Reflection: Plusses

The Sustainability Compass definitely allowed students to take what they had experienced at the Poverty Simulation at Crossroads and create a visual of the many factors that they experienced and discussed, as well as consider other aspects that are related to poverty. The process of drawing arrows really allowed them to visualise which aspects held more influence over the system.

The Systems Iceberg worked well after already having completed the Sustainability Compass. It empowered them to dig deeper into the different levels of the system of poverty in order to discover the root causes of the issue as well as start thinking critically about leverage points in which they could begin to make long-lasting meaningful change.

Lastly, it was never going to be ideal to do these two activities with 160 students in one room but it actually went better than I thought it would. I had done a Sustainability Compass with the tutors beforehand so they were really helpful in monitoring their student's progress in the second lesson. I also had two senior leaders helping me during the first lesson.

Reflection: Areas for Improvement

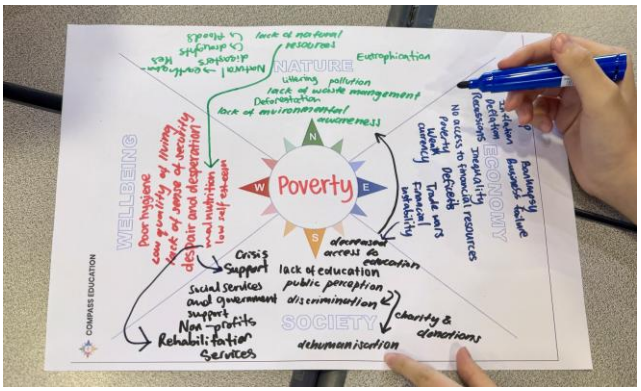
Time was the major negative for both activities. By the time students made their way to the allocated space it was less than an hour that I had with them. During the second lesson someone else wanted to make some announcements to the group which meant that I effectively had about 40 minutes with the students so the Systems Iceberg felt very rushed.

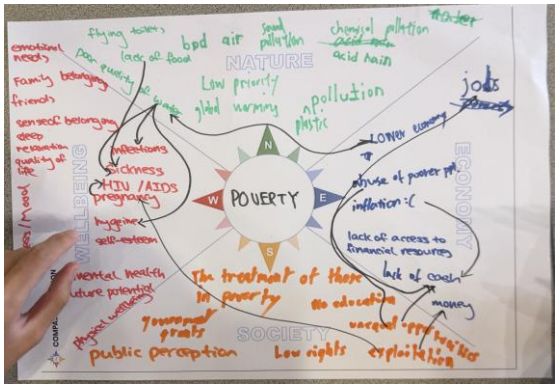
I didn't have as much time to create a collaborative Sustainability Compass or Systems Iceberg with the group, however, I did collect their Sustainability Compasses and create a group Sustainability Compass that I showed them at the beginning of the Systems Iceberg lesson. I would have liked more time to discuss their Systems Icebergs and give them an opportunity to move the post-it notes if necessary. I also would have liked more time to discuss leverage points in detail.

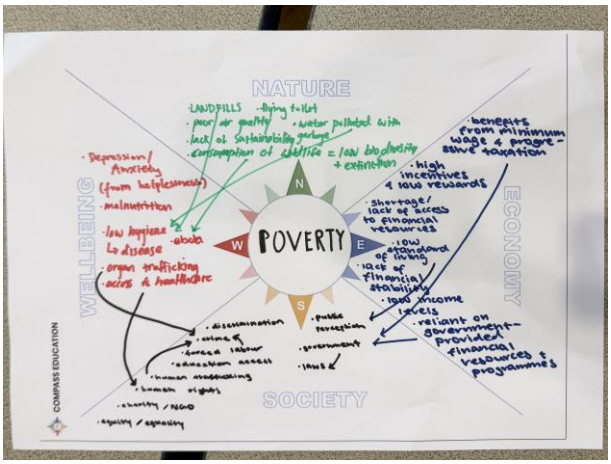
The timing of the Sustainability Compass directly after Crossroads was perfect but there was a week between the Sustainability Compass and the Systems Iceberg which felt a bit disconnected.

Lastly, the hall had already been booked so I had to use a much smaller space which was not ideal as some students were very cramped and more distracted.

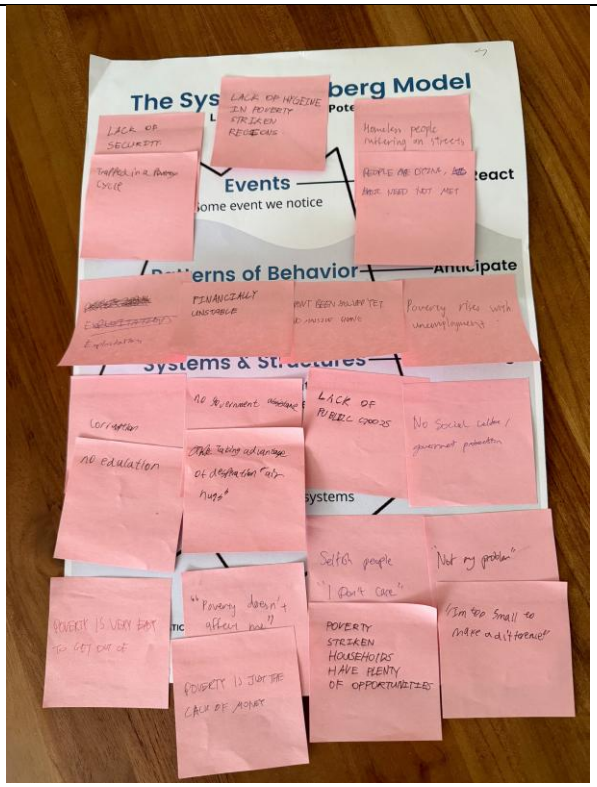
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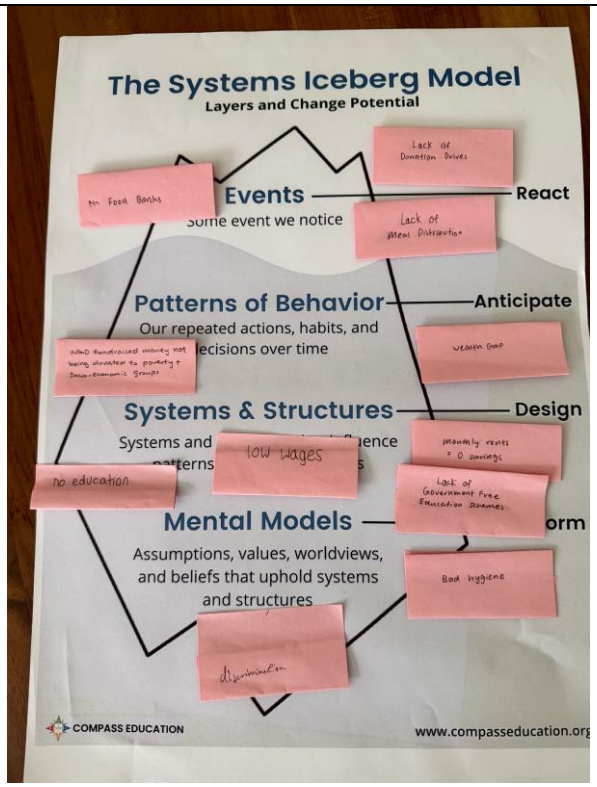


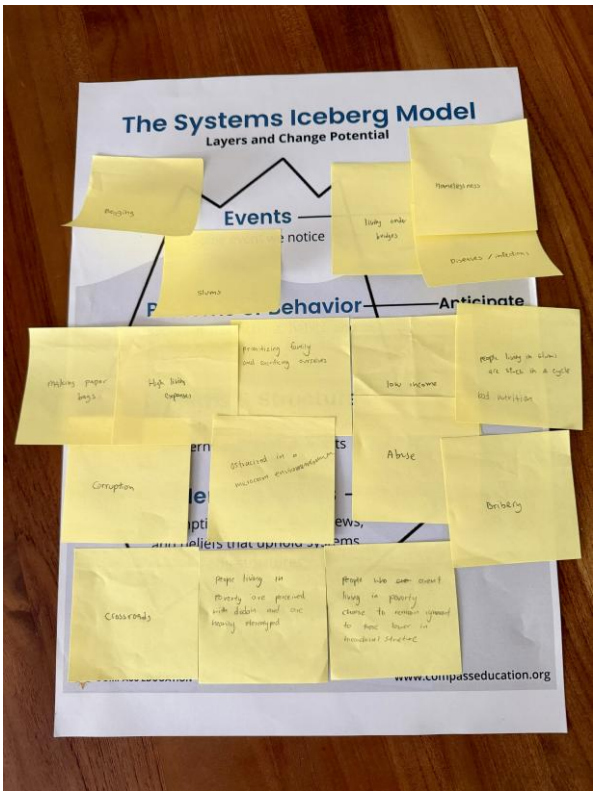


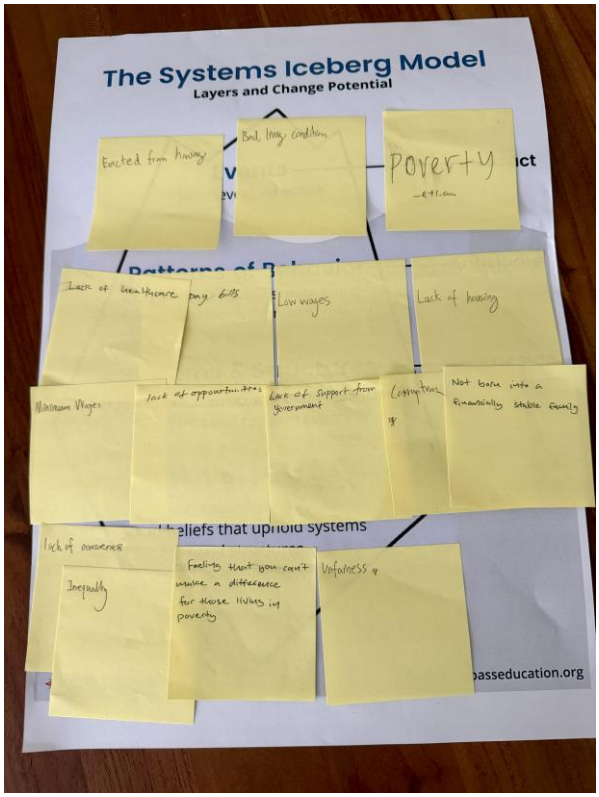


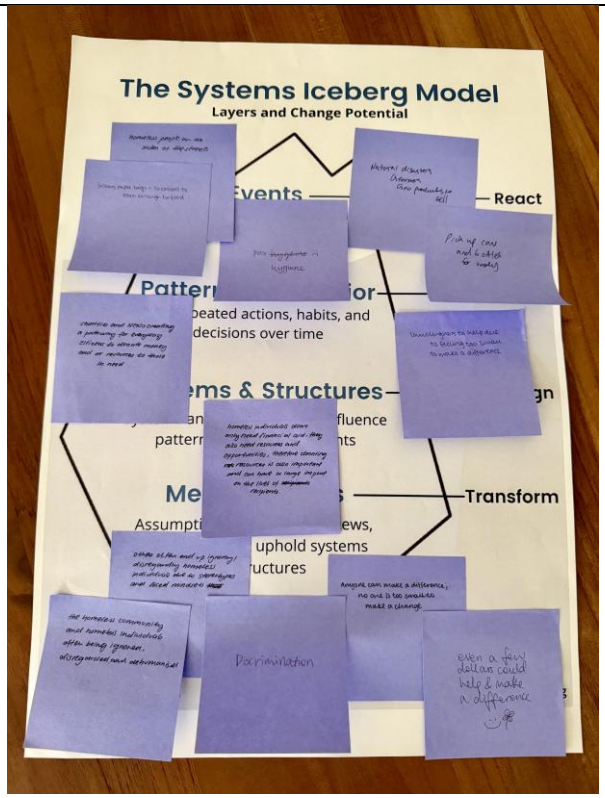


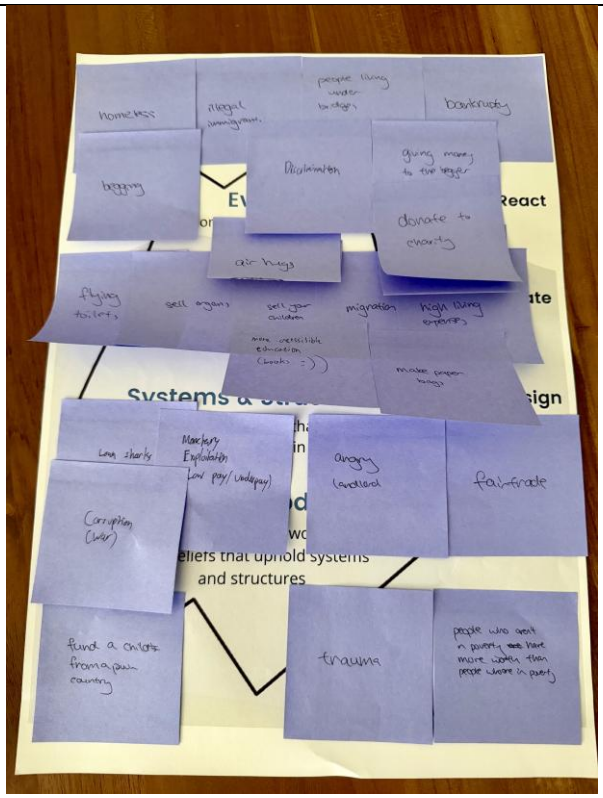



The Systems Iceberg Model
Layers and Change Potential
Events
Some event we notice
React
Patterns of Behavior
Our repeated actions, habits, and decisions over time
Anticipate
Systems & Structures
Systems and
Design
Mental Models
Assumptions, values, worldviews, and beliefs that uphold systems and structures
Lack of Donation Drives
No Food Banks
Lack of Meal Distribution
Low Wages
no education
Bad hygiene
discrimination
COMPASS EDUCATION
www.compasseducation.org


The Systems Iceberg Model
Layers and Change Potential
Events
Behavior
Anticipate
Abuse
Bribery
Corruption
Crossroads
www.compasseducation.org


The Systems Iceberg Model
Layers and Change Potential
Evicted from hiway
poverty
Low wages
Lack of housing
Lack of opportunities
Lack of Support from Government
Not born into a financially stable family
Inequality
Unfairness
Feeling that you can't make a difference for those living in poverty
beliefs that uphold systems


The Systems Iceberg Model
Layers and Change Potential
React
Transform
uphold systems
Discrimination
even a few dollars could help & make a difference


homeless
bankruptcy
begging
Discrimination
giving money to the beggar
donate to charity
air hugs
flying toilets
migration
high living expenses
Systems
Corruption (War)
angry landlord
fair trade
and structures
trauma