SERVICE LEARNING IN THE CLASSROOM: USING COMPASS EDUCATION SYSTEMS THINKING TOOLS

Submitted by Ibironke Bearzi, Fourth Grade Teacher at Frankfurt International School

LEARNING PLAN OVERVIEW

Subject(s)	• Service Learning • Global Citizenship Education • Sustainable Development Project
Grade Level (s)	• Lower Primary (ages 6-7) • Upper Primary (ages 8-11) • Middle School (ages 12- 13)
Systems Tool(s)	• Sustainability Compass • Systems Iceberg • Behavior Over Time Graphs • Systems Mapping or Causal Loop Diagrams
Purpose of Using Tool	• Critical Thinking • Discussion • Action Planning • Reflection
Summary	For students to expand the range of choices available for solving a problem by broadening their thinking and helping them articulate problems in new and different ways.

Learning Objectives

- To learn about and apply systems thinking tools
- To foster perspective-taking, raise questions, and surface areas for further inquiry
- To make informed decisions and take action to make a difference

Material and Settings

- Writing equipment
- Copies of Sustainability Compass and Systems Iceberg (optional)

- Whiteboard and computer
- Classroom and/or outdoor setting

Learning Context

Service learning in a fourth-grade class involves integrating community service projects with classroom learning to enhance students' understanding of social responsibility and foster their personal growth. In this context, students actively participate in hands-on activities that benefit the community while also reinforcing academic concepts and skills.

Purpose of Using the Systems Thinking Tools

The Systems Iceberg and Sustainability Compass tools allow students to take a deeper look at the events, concerns, and issues that matter to them and notice in the community.

Also, these tools enable them to see the whole system, 'to get the whole story', and help them formulate more effective questions and responses to new situations.

Learning Plan Step-by-step Description

1. Ask students to either identify a new issue that is of concern to them in the community and is connected to the chosen SDGs or continue with the ones previously identified.
2. In previous 'collaborative' groups or new groups, have them describe the problem from all four levels of the iceberg: events, patterns, systems & structure, and mental models.
3. Each group assigns a scribe or takes turns completing the Systems Iceberg. You might want to ask students to be responsible for different roles: scribe, facilitator, presenter, and timekeeper.
4. Encourage students to have a brief discussion about their Systems Iceberg. The 'presenter' from each group can present the group's work to the whole group. Students can ask questions and share observations and comments.
5. Each group return to their Systems Iceberg Model and highlight leverage points within the systems & structure and mental models identified.
6. Students brainstorm an action they would like to take to make a positive change. They select different leverage points for the action.
7. For each leverage point, students justify their choice and explain how it might impact their action.
8. Instruct students to revise their action plan or plan for action using the Five Stages of Service Learning.

Introduce the Five Stages of Service Learning

1. Students revisit and think critically about their Systems Iceberg Model and prepare and plan for action resulting from identified leverage points. Complete the Five Stages of Service Learning to make an impactful and sustainable change: complete their investigation, prepare, plan, take action, reflect, and demonstrate their learning by creating a loop diagram to tell their story.
2. Students reflect on how the Systems Iceberg Model helped to 'get the whole story', to see the whole system, and identify leverage points within the system.

REFLECTION

Plusses

Throughout each project duration, students had the opportunity to apply their knowledge of the Systems Thinking Tools in real-world settings and develop essential skills like critical thinking, problem-solving, collaboration, and communication. They conducted research, analyze data, and presented their findings to the broader community. The integrated approach of the tools ensured that academic learning is complemented by practical experiences that have a tangible impact on the environment and the local community.

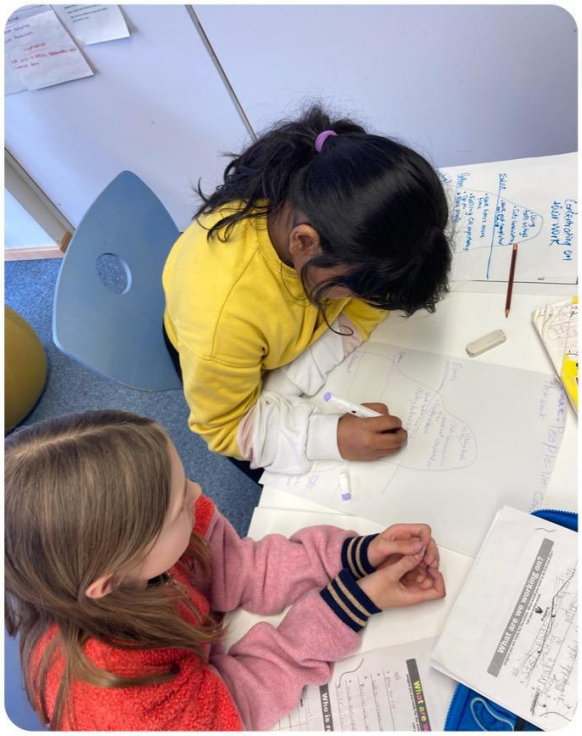
Areas for Improvement

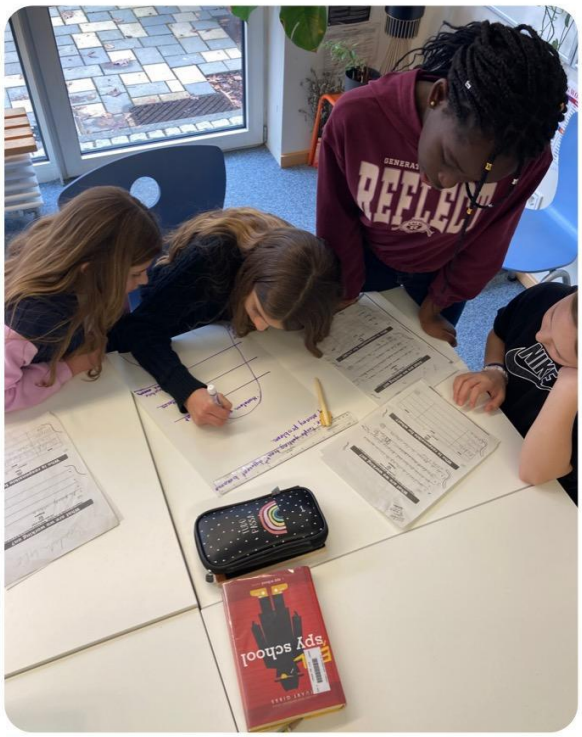
Time was a constraint.

Finding the perfect balance for students to go deeper in their thinking and actually completing their actions was tricky. There's definitely area for improvement, recognising when to move students along while reinforcing the importance of applying the Systems Thinking tools.

EVIDENCE


ROALD DAHL
DANNY
THE BABY-SITTERS CLUB

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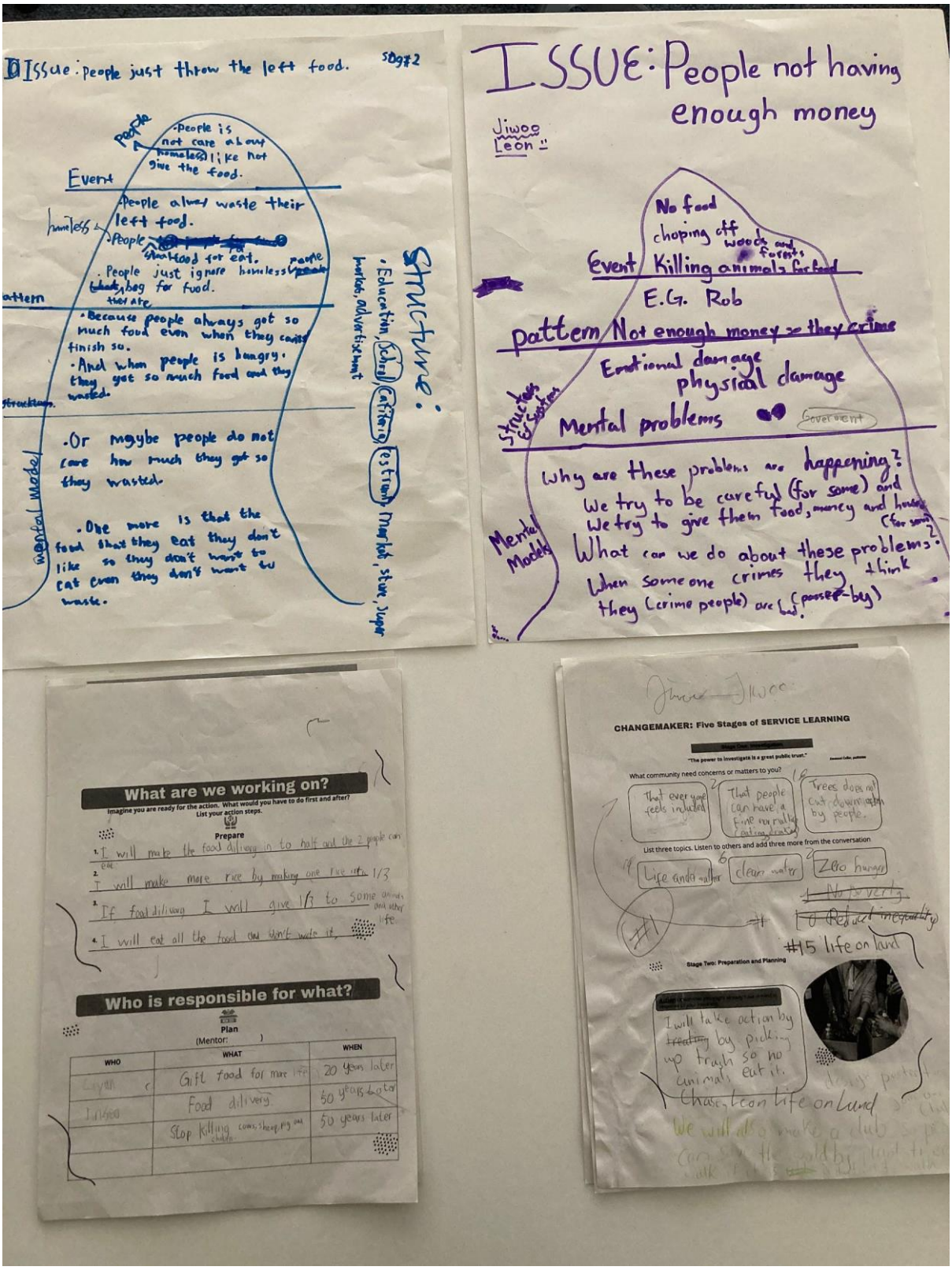
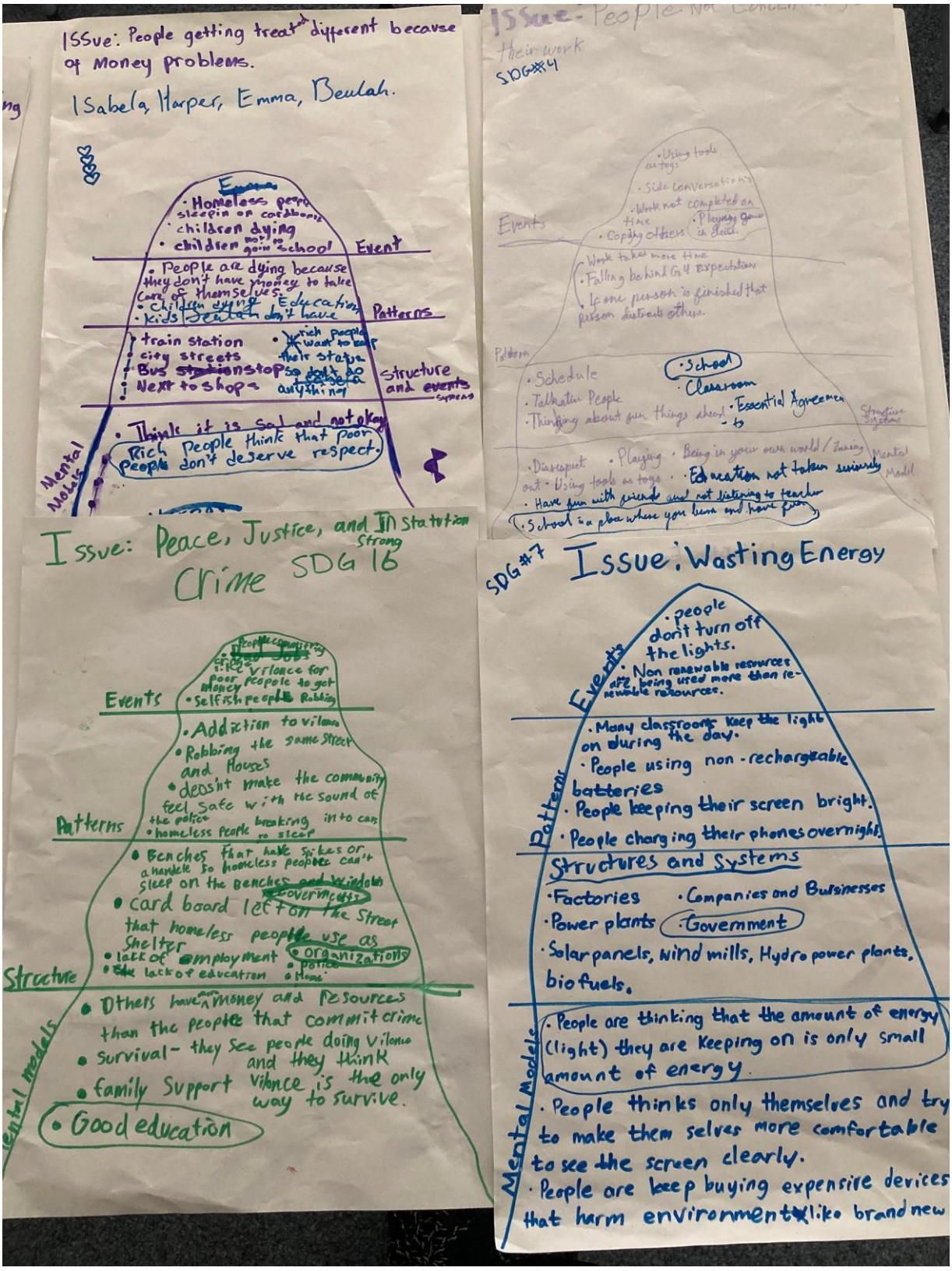

Issue: people just throw the left food.
People
Event
People always waste their left food.
People just ignore homeless people
Pattern
Because people always get so much food even when they can't finish so.
And when people is hungry. they get so much food and they wasted.
Or maybe people do not care how much they get so they wasted.
One more is that the food that they eat they don't like so they don't want to eat even they don't want to waste.
Structure:
Education, School, Culture, Festival, Market, store, Super
ISSUE: People not having enough money
Jiwoo
Leon
No food
choping off woods and forests
Event Killing animals for food
E.G. Rob
Pattern Not enough money so they crime
Emotional damage
physical damage
Mental problems
Government
Why are these problems are happening?
We try to be careful (for some) and
We try to give them food, money and house (for some)
What can we do about these problems?
When someone crimes they think they (crime people) are bad. (poorer-boy)
Mental Models
What are we working on?
Imagine you are ready for the action. What would you have to do first and after? List your action steps.
Prepare
1. I will make the food diliverg in to half and the 2 people can eat.
2. I will make more rice by making one rice into 1/3
3. If food diliverg I will give 1/3 to some animals and other life.
4. I will eat all the food and don't waste it.
Who is responsible for what?
Plan
(Mentor:)
WHO
WHAT
WHEN
Gift food for more life
20 years later
Food diliverg
50 years later
Stop killing cows, sheep, pig and chicks
50 years later
CHANGEMAKER: Five Stages of SERVICE LEARNING
"The power to investigate is a great public trust."
What community need concerns or matters to you?
That every one feels included
That people can have a fine normally eating/drinking
Trees does not cut down a lot by people.
List three topics. Listen to others and add three more from the conversation
Life under water
clean water
Zero hunger
No poverty
Reduce inequality
#15 life on land
Stage Two: Preparation and Planning
I will take action by by picking up trash so no animals eat it.
Chase, Leon life on Land
We will also make a club


ISSue: People getting treat different because of Money problems.
Isabela, Harper, Emma, Beulah.
Event
Patterns
Structure and events
Mental Models
Issue: Peace, Justice, and Strong Institution
Crime SDG 16
Events
Patterns
Structure
Mental models
Good education
SDG #7
Issue: Wasting Energy
Events
Patterns
Structures and Systems
Factories
Companies and Businesses
Power plants
Government
Solar panels, wind mills, Hydro power plants, biofuels.
Mental Models