DESIGN FOR A BETTER FUTURE

Submitted by Maria Norato, 2024, while serving as PYP Arts Coordinator and Design and Technology Teacher at Colegio Anglo Colombiano, Colombia

LEARNING PLAN OVERVIEW

Subject(s)	• Design Thinking • Global Citizenship Education
Grade Level (s)	Upper Primary (ages 8-11)
Systems Tool(s)	Systems Iceberg
Purpose of Using Tool	• Research • Inquiry • Critical Thinking • Discussion • Action Planning • Reflection
Summary	The learning plan explores how design serves as a problem-solving tool across diverse communities, highlighting its impact on addressing unique local challenges. It also delves into the significant role design plays in shaping our future, emphasizing its influence on societal progress and innovation.

Learning Objectives

Communication and Manipulation of Materials and Skills:

- Students will apply collaborative design by analyzing their understanding of the connections in a system

Design Principles, Innovation and Redesign:

- Students will analyze how their own design solved a problem in a community

Material and Settings

- Google slides presentation: Design for a Better Future
- Resources: Print

- Unit of Inquiry: Design for a Better Future

Learning Context

The learning experience is situated within a collaborative and interdisciplinary environment where students engage with real-world problems and future-oriented scenarios. Through hands-on projects and critical discussions, learners investigate the multifaceted role of design in community development and its potential.

Purpose of Using the Systems Thinking Tools

I chose the Systems Iceberg as the systems thinking tool because it effectively illustrates the underlying structures and mental models that drive visible events, enabling a deeper understanding of complex issues beyond their surface level. This approach helps in identifying root causes and designing more sustainable solutions.

Impact on Participant Learning

This experience led to increased empathy and collaboration as students proposed and implemented more inclusive and real-life solutions, demonstrating a shift in their behavior towards proactive problem-solving and teamwork.

One concrete example from one of my students who initially viewed her career path in biology focused on climate change solely as a matter of reducing carbon emissions. However, after using the Systems Iceberg model, she recognized the deeper structural issues, such as economic policies and societal values that drive unsustainable practices. For example, I had many students who shifted their view of a common career path by analyzing more complex topics that came up after applying the tool, like: gender equality in sports, identity and cultural values in art, social responsibility in healthcare, or displacement and homelessness in architecture. The depth that was possible to obtain by using the iceberg led them to propose more comprehensive design solutions that included policy advocacy and community education initiatives. Additionally, their behavior shifted towards proactive problem-solving, as they began collaborating more with peers to tackle these complex issues from multiple angles.

Learning Plan Step-by-step Description

Session 1: Empathize, define, ideate

1. Welcome students, assign the class monitor, check for absences.
2. Explain the content of the class (Starting stage, the unit, central idea, I can statement.

3. Explain problem-solving in Design.
4. Explain the extended design cycle.
5. Class discussion WHY DO WE START WITH EMPATHY?
6. Discuss about: what you want to be when you grow up?
7. Follow the structured Brainstorm with the given questions, make sure to give 2 min for each stage.
8. Once the students select their career paths, watch the video.
9. Dicuss the video and complement the explanation about the Systems Iceberg, try using real-life examples that they are familiar with at school, and guide them to complete the Systems Iceberg from the bottoms-up (thinking about an ideal scenario for the selected career path.
10. When they finish with the Systems Iceberg, form groups according to the career options.
11. Hand over the cards and open them to see the problem/event that students will solve
12. Start using the Systems Iceberg from the top down completing it from the perspective of the chosen career, use the QR code for further research.
13. Introduce 2° I ca statement.
14. Discussion about the outline of the planning.
15. Have the groups choose one of the systems for their design and explain design specifications.
16. Give them give time for the detailed planning.
17. Clean and organize tools and working spaces.

Session 2: Solving problems with design

1. Welcome students, assign the class monitor, check for absences.
2. Explain the content of the class (Starting stage, the unit, central idea, I can statement.
3. Discussion about Which of the following is your career pathway connected to?
4. Sit in groups and hand over the cards with the problems.
5. Complete the Systems Iceberg from top to bottom, having as the event the problem given. (fill it out having the lense of the career path chosen in the previous session)
6. With the information in your Systems Iceberg, choose a system or structure to design a solution for. Work with your team and discuss the given questions (who, how, what...).
7. Time to design, complete the given requirements.
8. Complete the detail planning.
9. Time to create the solutions (this can take 2-3 sessions).
10. Finalize with a reflection.
11. Clean and organize tools and working spaces.

Reflection: Plusses

As mentioned before, the experience fostered a significant increase in empathy and collaboration among students, as they successfully proposed and implemented inclusive solutions, demonstrating enhanced problem-solving skills and teamwork.

To illustrate, one group of students working on gender equality in sports developed a campaign that not only advocated for equal opportunities but also targeted changing societal attitudes through workshops, clubs and media ads. This research led them to question the school's sports day and the division by gender currently used. Which led them to make a new proposal for next year's sports day. I observed them actively collaborating, drawing on each other's diverse perspectives, and engaging in thoughtful discussions about how to approach such a multifaceted issue. These examples demonstrate how the Systems Iceberg model helped them move beyond surface-level solutions to address the root causes of the problems.

Reflection: Areas for Improvement

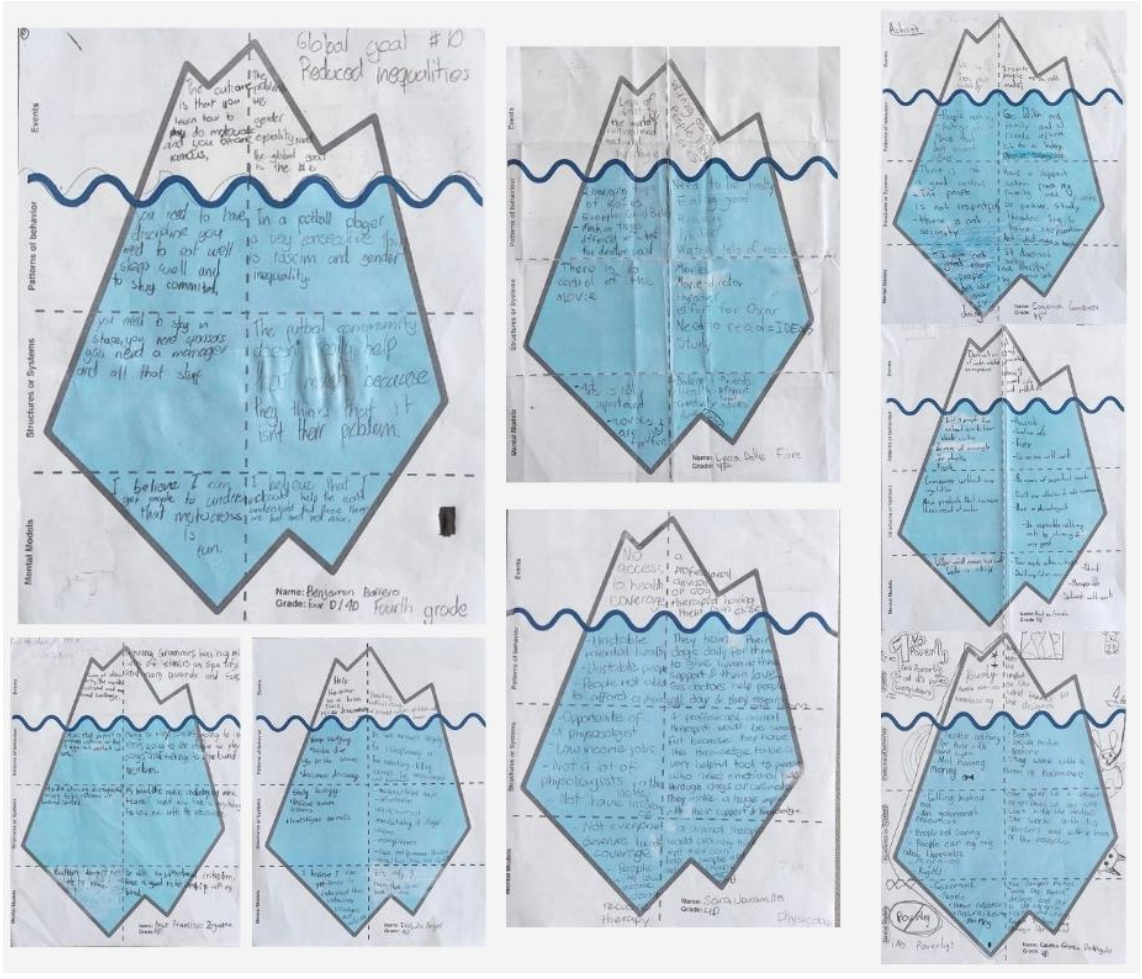
Linking students' chosen career paths to the Global Goals helped frame the problem or event they needed to analyze using the Systems Iceberg, providing them with the drive and motivation to solve problems and design sustainable solutions.

Based on this insight, I will suggest that the school integrate more real-world scenarios related to students' career interests into the curriculum, ensuring the relevance of the Systems Iceberg tool is clear.

Additionally, I will advise them to create opportunities for students to present their findings and proposals to wider audiences, such as school boards or community groups, to further encourage their engagement and investment in real-world applications.

EVIDENCE




Global goal #10
Reduced inequalities
Events
Patterns of behavior
Structures or Systems
Mental Models
Name: Benjamin Barrero
Grade: Ever D / 4D Fourth grade