



## Grade 5 Spanish and Service Learning: How to End the Cycles of Malnutrition and Obesity

(Submitted by Alicia Aizuri Minakata, 2018, while serving as Teacher at The American School Foundation of Guadalajara, Mexico)

<b>Tool(s) used:</b>	<ul style="list-style-type: none"> <li>• Systems Iceberg</li> </ul>
<b>Purpose of using tool:</b>	<ul style="list-style-type: none"> <li>• Research</li> <li>• Synthesizing Thinking</li> <li>• Guiding Discussion</li> </ul> <p><b>Overview:</b> Students used the Iceberg first to describe what they were eating and what things they like to eat, they also describe what possible problems do we have as a country related to nutrition. Then students started to realized that when eating their food comes from different sources, like organic, transgenic, process, chemicals added, etc. The Iceberg helped them to know more about what they are eating and to think deeper about what they are choosing to eat, and to understand why is it important to grow their own food, and help other less fortunate children to have healthy food.</p> <p>The Cause Consequence Loop Diagram will help them find ideas on how to end the cycles of malnutrition and obesity. These were the two problems we have in Mexico.</p>
<b>Context of lesson/case study:</b>	Spanish Class, Service Learning
<b>Participants (# and description):</b>	Fifth graders (12 year old) 108 students in Spanish 38 students in Service Learning
<b>Topic, Theme, or Key Understanding of unit/project:</b>	Project: how to understand among different kinds of ideas to support an opinion text, like: citations, data, and examples. Debating using supported information.
<b>Length of unit/project:</b>	3 weeks
<b>Resources/materials &amp; setting required:</b>	<p>First I had them read from their Spanish Text book about Transgenic food and organic food <a href="#">linked here</a> page 102, 103, and 105.</p> <p>Then we looked for more information related to what they answered on the first level on the Iceberg model, so we look for information related to malnutrition, obesity, and junk food linked <a href="#">HERE</a> and <a href="#">HERE</a>. We were reading together and finding the clue words and general ideas using a T chart on notebooks individually.</p> <p>Then they were working in groups of four to complete the second level on the Iceberg diagram. I included questions to help students to scaffold their thinking through the different stages of the Iceberg. On the third level of the Iceberg I printed the clue words we had on the T charts and I gave a different theme per team so they can connect the words using the cause consequence feedback loops.</p> <p>Finally they wrote sentences in which they reflect on their connections.</p>



**Lesson Plan/Description of the Project:****Unit Title:** Texto Argumentativo y debate**Unit Duration:** 3 weeks**Subject/Course:** Español**Grade Level:** 5th grade**School:** ASFG**Designers:** Aizuri Minakata**STAGE 3 – DEVELOP LEARNING PLAN**

Level of Completion

**ESSENTIAL QUESTIONS**

What kind of food are we eating?

How do children eat in Mexico?

**LEARNING EXPERIENCES**

First, I asked them discuss on their tables the two essential questions. We shared a couple of answers with the whole group. We worked in groups of four, we started using the Iceberg model to go deeper in knowing our food habits in 5th grade and in Mexico. I added questions to each level to help students scaffold the different levels (I got this idea from the “Andamiaje” Vigotsky, Bruner): <https://blog.prepscholar.com/vygotsky-scaffolding-zone-of-proximal-development>

Each team started to work on the Iceberg tool as follows:

- 1. The Event Level:** Each group discussed about these questions: What kind of food do we eat at home? At school? In restaurants? Why is it important to eat healthy? Does every kid in jalisco has been eating healthy? Why do we eat? They wrote their answers on the Iceberg model.
- 2. The Pattern Level:** Students analyzed graphics, general information and percentages about bad nutrition in Mexico.

[https://www.unicef.org/mexico/spanish/noticias\\_39104.html](https://www.unicef.org/mexico/spanish/noticias_39104.html)<http://www.revista.unam.mx/vol.16/num5/art34/>

Transgenic food:

[https://issuu.com/santos\\_rivera/docs/primaria\\_quinto\\_grado\\_espanol\\_libro\\_c4facd7a26d7e0](https://issuu.com/santos_rivera/docs/primaria_quinto_grado_espanol_libro_c4facd7a26d7e0)Organic food: <https://www.eluniversal.com.mx/articulo/menu/2017/07/2/beneficios-de-comer-organico>

Malnutritious and Obesity:

<http://www.alfa-editores.com.mx/ciencia-y-nutricion-reunidas-en-guadalajara/>

Monosodium Glutamate:

<https://www.lavanguardia.com/comer/materia-primaria/20170905/431047900626/como-de-danino-puede-ser-el-glutamato-monosodico-sintetico-para-nuestro-organismo.html>

I provided copies to each team. We did the ones from the Spanish text book together, then students divided their teams of four in pairs to read, underlined clue words, and wrote 3 to 5 sentences to summarize using a T chart on their notebooks, and finally, they answered the questions reviewing their notes again in groups of four.

- 3. The structure level:** At this level, students used Cause-Consequence Feedback loops to see causes and effects of bad nutrition, transgenic food and organic food. Students identified the structures that are underneath. I printed different labels to help students work on this level. The words I used were on the texts we read. We were choosing the words together at first, and then we checked together as a group to have the same words.





**4. Mental Model Level:** Students completed sentences to state their beliefs and those from our ASFG community (our students are very rich, wealthy people, 5% of the population in Mexico).

Yo creía que en México los niños comían \_\_\_\_\_

Yo creía que los transgénicos \_\_\_\_\_ -

La comida orgánica es \_\_\_\_\_

La malnutrición en México es responsabilidad de \_\_\_\_\_

Los niños malnutridos necesitan \_\_\_\_\_

Yo creía que la obesidad era causada por \_\_\_\_\_

After completing the diagram they participated in a debate. each team had a different theme according to the feedback loops they worked on, we have themes like: Transgenic food, organic food, malnutritious causes, obesity causes, etc.

### **DIFFERENTIATED EXPERIENCES**

Some of the students didn't go to school because they were at a tournament in ASOMEX, so I asked their teammates to help them understand and help them completed their notes they missed. I graded the notes on the workbook and the completeness on the Iceberg.

### **RESOURCES**

I made a drawing to structure the levels when using with students:

<https://docs.google.com/drawings/d/1Q78kEutYidaqx38gmM2IhrDch0keH0fkvfM9eICmzac/edit>

Iceberg diagram: I'll work with the whole groups to generate questions to guide their thinking, then they will continue to work to dig in the bottom part in small groups.

<https://www.youtube.com/watch?v=K8xNCySfwC0>

<https://nwei.org/assets/A-SYSTEMS-THINKING-MODEL-The-Iceberg.pdf>

<https://nwei.org/iceberg/>

Students will use the feedback loops to find causes and effects of bad nutrition, eating transgenic food, and eating organic food.

### **Reflection**

#### **Plusses:**

- Students understood the different kind of ideas that can use to support a debate: data, examples, facts, citations. Students realized about how important is to read the labels of the food they are eating and to demand to our authorities to have markets to show if food is transgenic.
- They realized also, that they can grow their own food having Earth boxes at home or at school, right now we have 16 with chard, strawberries, and arugula. Students take care of them. They realized they can do more for native children from communities like The Wirraricas (huicholes) who are having difficulties eating healthy. At first, students said the government were responsible to feed and nourish poor communities, but now they understand they can participate donating to ONI.
- The tools help students organize the information and dig deeper on their believes.
- They now think twice about what they are eating.
- They differentiate about the different kind of information to support their ideas when debating.

#### **Challenges:**

- To include less texts to summarize.
- I want to use the tool again to research, but they will come out with their themes and questions for



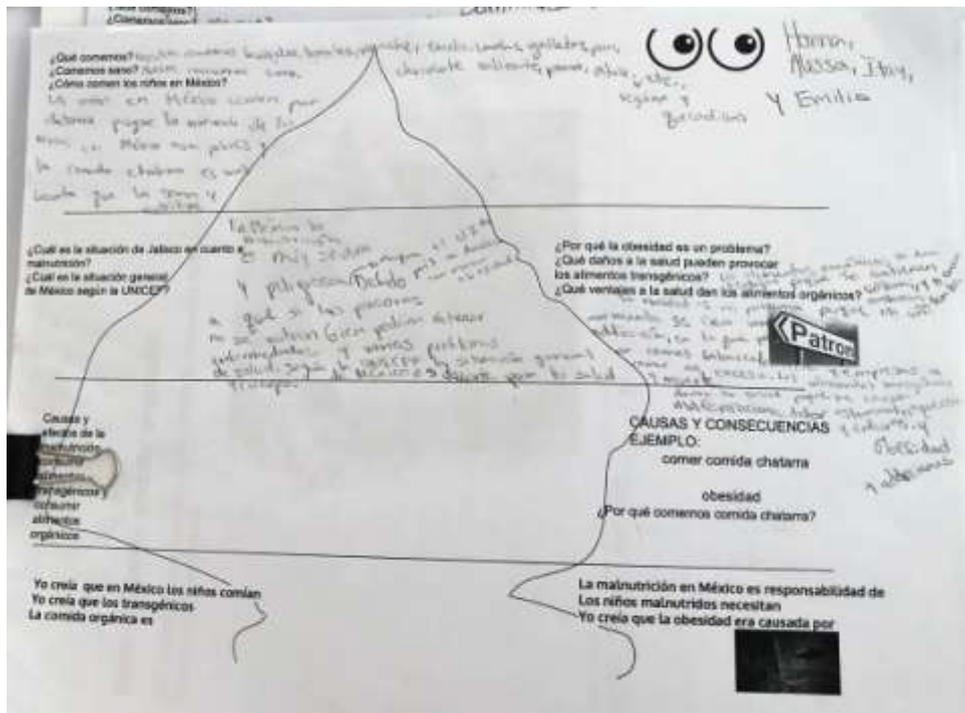


each level in teams. Now they can see the model and do their own process.

## Suggestions for other practitioners and educators:

- Don't be afraid about doing it. Children like trying new things and being challenged.
- Do the debate using the "Six hats to Think from Edward de Bono", but only the yellow, the black, and white, so students can understand and watch who are against, neutral and in favor of each theme.

## Evidence and Resources:



**COMPASS EDUCATION**

Empower & Connect Learning Communities to Educate & Act for Sustainable Future  
[www.compasseducation.org](http://www.compasseducation.org)