

Sociology 3820: Food and Culture in Global Society
Fall 2016
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Course materials including assessments (if applicable)

LA Times food-water footprint link: <http://graphics.latimes.com/food-water-footprint/>

The Power of Community: How Cuba Survived Peak Oil - Chapter on Agriculture

Description:

The activity took place in three stages. First students were asked to keep track of everything they ate for 7 days. This stage of the project was comprehensive so that students could use this data in other assignments. For example, students included not only what they ate, but also when they ate it, whether they ate with others, and whether they were multitasking while eating (i.e. doing homework, driving, etc). However, for this quantitative reasoning assignment, the information that was relevant was the food that students reported eating.

For the second stage of the assignment students were asked to choose one typical day of food consumption. Using the LA Times food-water footprint graphic, students were asked to estimate the gallons of water needed to produce the food they consumed in a typical day. This measure is imprecise because I did not ask students to measure the exact amount of food or drink they consumed (i.e. the amount of ounces in their soda) and instead relied on the measures available in the food-water footprint graphic. Additionally, not all foods the students consumed were available in the graphic so in those cases students had to substitute something else they would typically eat. However, the purpose of the assignment - to make a connection between food consumption and water consumption - does not require an absolute level of precision.

Students used their data to create two bar graphs that measured the water needed to produce the food they consumed. The first bar graph showed their water footprint by meal (i.e. breakfast, lunch, dinner, snack). The second bar graph asked students to take their most water-intensive meal and create a second bar graph that graphed each food item by the amount of water needed to produce it. Water consumption was measured in gallons. This stage of the assignment was completed as homework and charts were brought to class.

For the third stage of the assignment, students watched a chapter from the documentary *The Power of Community: How Cuba Survived Peak Oil*, which focused specifically on the impact of oil on food. A key message from this documentary is that when Cuba was no longer able to import sufficient oil products from the Soviet Union, the country was forced to rethink the way it farmed, which also facilitated a change in diet among people in Cuba. In essence, the decline in available natural resources facilitated changes in the

foods people ate in Cuba. I draw a parallel between oil and water as natural resources that affect farming and availability of food. After viewing the movie, students brought their bar charts to class and compared their results in groups of about 2-3 students. This led to several different discussions. For example, breakfast meals tended to be small because many students did not eat much for breakfast, which was a reflection of their busy school and work lives. Also, students could see how preferences for certain types of protein made significant impacts on water consumption. Following these discussions, students were asked to work in their groups to devise a meal in which they could “spend” up to 750 gallons of water, one where they could spend up to 350 gallons of water, and one where they could spend up to 100 gallons of water. The purpose was to recognize how diets would need to change depending on the scarcity level of water. This is a particularly relevant discussion for the Central Valley given that this area serves as one of the nation’s breadbaskets while also experiencing prolonged severe drought conditions. Students presented the results of their findings to the larger class.

Assessment:

Students seemed to really enjoy the assignment, particularly the third stage where they can draw a connection between depleting natural resources and food. Much of the assignment is done as homework and thus does not require significant class time. The segment chosen from the documentary runs about 20 minutes, so we viewed the movie and had a discussion about it in one class period (50 minutes). The group portion of the assignment in which students compare their results and design meals was done in a second class period. It should be noted that students referred to the LA Times food-water footprint to devise some of their meals so having internet access was advantageous. Most students accessed the website through their phones.

Students seemed to really engage with this assignment to the point that I will be repeating it again when I teach the class in the fall. Some things that can improve this assignment: 1) I did not have a pre/post-test assessment to measure the extent that students improved their quantitative reasoning skills. The primary goal of the assignment was to use data to help students make the specific connection between food and natural resources, but building general quantitative reasoning skills is a secondary goal. Thus an assessment that measures the extent to which this was accomplished would be useful. 2) Some students struggled with how to make a quality bar graph. I made the mistake of assuming all students had experience making these kinds of graphs. Simple instructions would likely benefit students in the future. 3) In the future, I would like to have students devise meals that reflect water consumption levels in different parts of the world to add a more global picture to our discussions of unequal access to food and natural resources.