



THE UNIVERSITY OF TEXAS
AT ARLINGTON

Exploring the Intersection Between Culture and Sustainable Food Systems

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Purpose

The main purpose of the University of Texas at Arlington PLC for Sustainability is to advance sustainability education by exploring effective ways for integrating sustainability in teaching and curriculum development¹. GEOG 4350 sought to reimagine sustainability in the curriculum by examining processes at the food security-environment nexus through course content, student field work experiences and research projects. We address the challenge of ensuring both food security and sustainable agriculture while accounting for culturally appropriate diets from a food systems perspective. The course integrates theoretical perspectives and practical knowledge or experiential learning. An important goal was to help students appreciate the complexities involved in ensuring sustainable food systems and how this can be studied.



Background

GEOG 4350 introduces students to food security studies. It does so by reviewing and examining factors that affect food and nutrition security. With regional focus on sub-Saharan Africa and the contiguous U.S.A. Students gain an understanding and appreciation of multiple and complex causes and drivers of food insecurity, the processes that occur at the food-environment nexus, and how food insecurity is differentially experienced across groups of people and space regarding, inter alia, such aspects as race, socioeconomic class, gender etc. The course also interrogates the policies and approaches that have been deployed by governments and international development and financial institutions to combat food insecurity. GEOG 4350 is structured around lectures, assigned peer reviewed readings, and teacher and student moderated class discussions – seminar format. Students also have an opportunity to engage in research investigating sustainability issues related to food and food insecurity. Overall, students come to understand food security as being complex thereby begin to develop capacity to analyze issues and devise solutions.

The implemented activity for GEOG 4350 had three components:

- Teach food security concepts in general, integrating sustainable agriculture/food systems and cultural food preference – so we explore the intersection between cultural food preference and sustainable food systems.
- Students complete a field task which involves visiting local mainstream supermarkets and ‘ethnic’ shops to explore the availability of ethnic foods.
- Teach students how to conduct basic research – this involves taking students through the research design process, after which students design their own research projects with an accompanying research paper.

Integrating Sustainability in Curriculum

Food security is linked to all the UN’s SDGs, this course and the student’s research projects primarily considered aspects of following SDGs²:

- SDG 1: End poverty, the underlying driver of food insecurity
- SDG 2: End hunger, food security is multidimensional and includes food preference in the access dimension
- SDG 13: Climate action, addresses human-environment interactions – impacts of agricultural production and consumption – food systems perspective

Emphasis is placed on elements of SDG 2 which aims to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture by 2030³. Broadly, although gains have been made over the years in the fight against hunger, this has been characterized by inconsistency. Globally, 900 million people faced severe food insecurity in 2022⁴. This makes the objective of meeting the zero-hunger target by 2030 nearly impossible without drastic measures.

Implemented Student Activity

The diagram below illustrates the basic research process “how they will complete their research”, I introduce and facilitate the process. Projects ideally integrated cultural food preference, sustainable agriculture, and food systems. Sustainable food systems refer to the sum of actors and interactions along the food value chain –from production to transportation, processing, retailing, wholesaling, and preparation of foods to consumption and disposal, as well contextual policy environments and cultural norms around food. An ideal food system is nutrition-, health-, and safety driven, productive and efficient, environmentally sustainable and climate smart, and inclusive⁵.

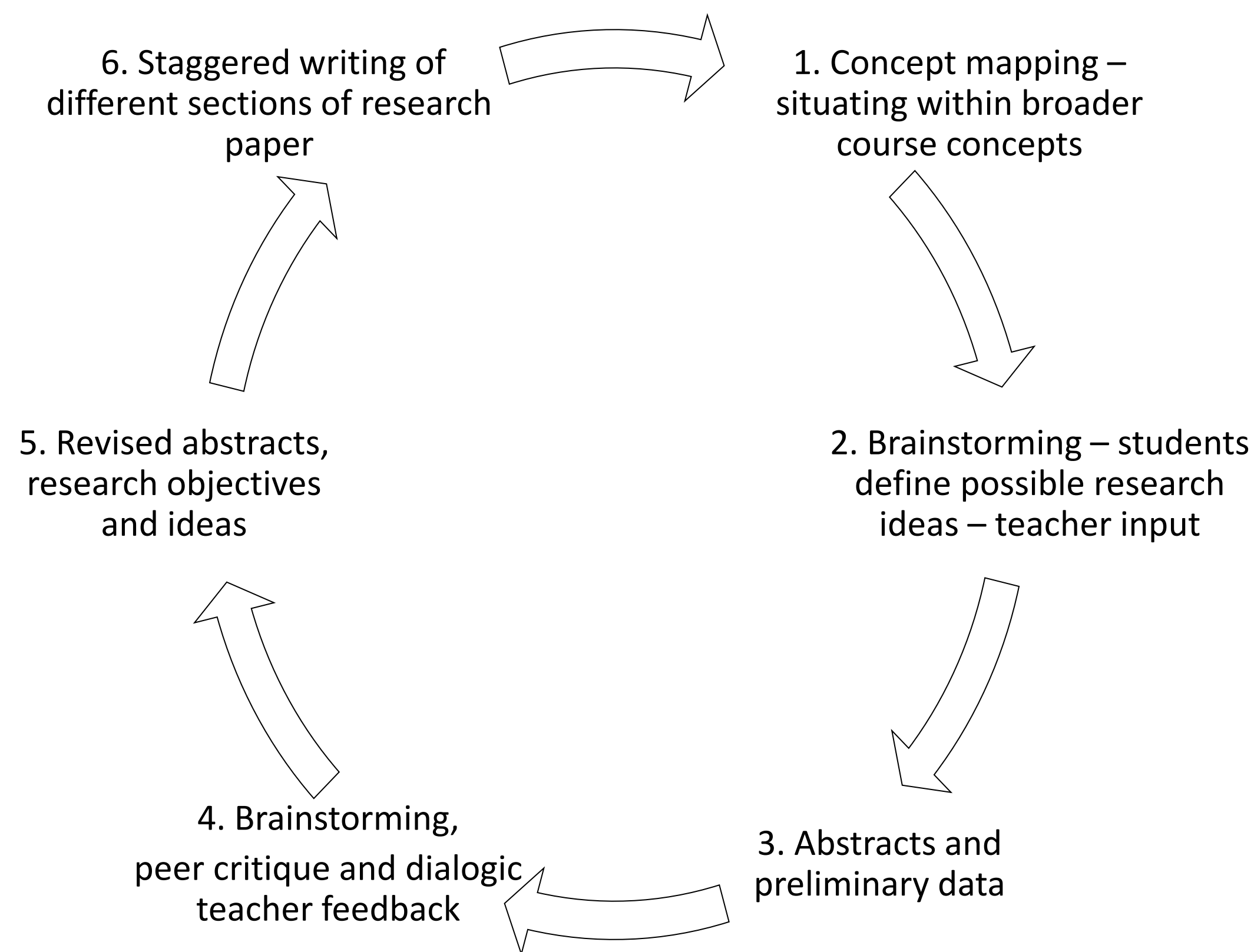


Figure 2. Research design process

Future Goals

My goal for the future is to explore the intersection between culture, local food systems and sustainability by examining the dietary habits/choices of UTA’s international students. I hope that investigating students’ dietary choices and how students both impact and are impacted by local food systems while considering their environment (environments (encompasses physical, economic, policy, and sociocultural surroundings, opportunities and conditions that influence people’s food and beverage choices and nutritional status)⁶ will help shed light on students’ food security as well as the sustainability of local food systems. Cultural acceptability and accessibility are integral elements of food security and sustainable food systems⁶. For instance, the provisioning of culturally appropriate food can reduce food waste, improve the quality of diets, and preserve human dignity⁷. The project and the related generated knowledge could be instructive to UTA’s environmental sustainability efforts, enhance local community engagement efforts, provide opportunities for students to learn more about sustainability and acquire useful research skills, and potentially advance sociocultural awareness among UTA students.

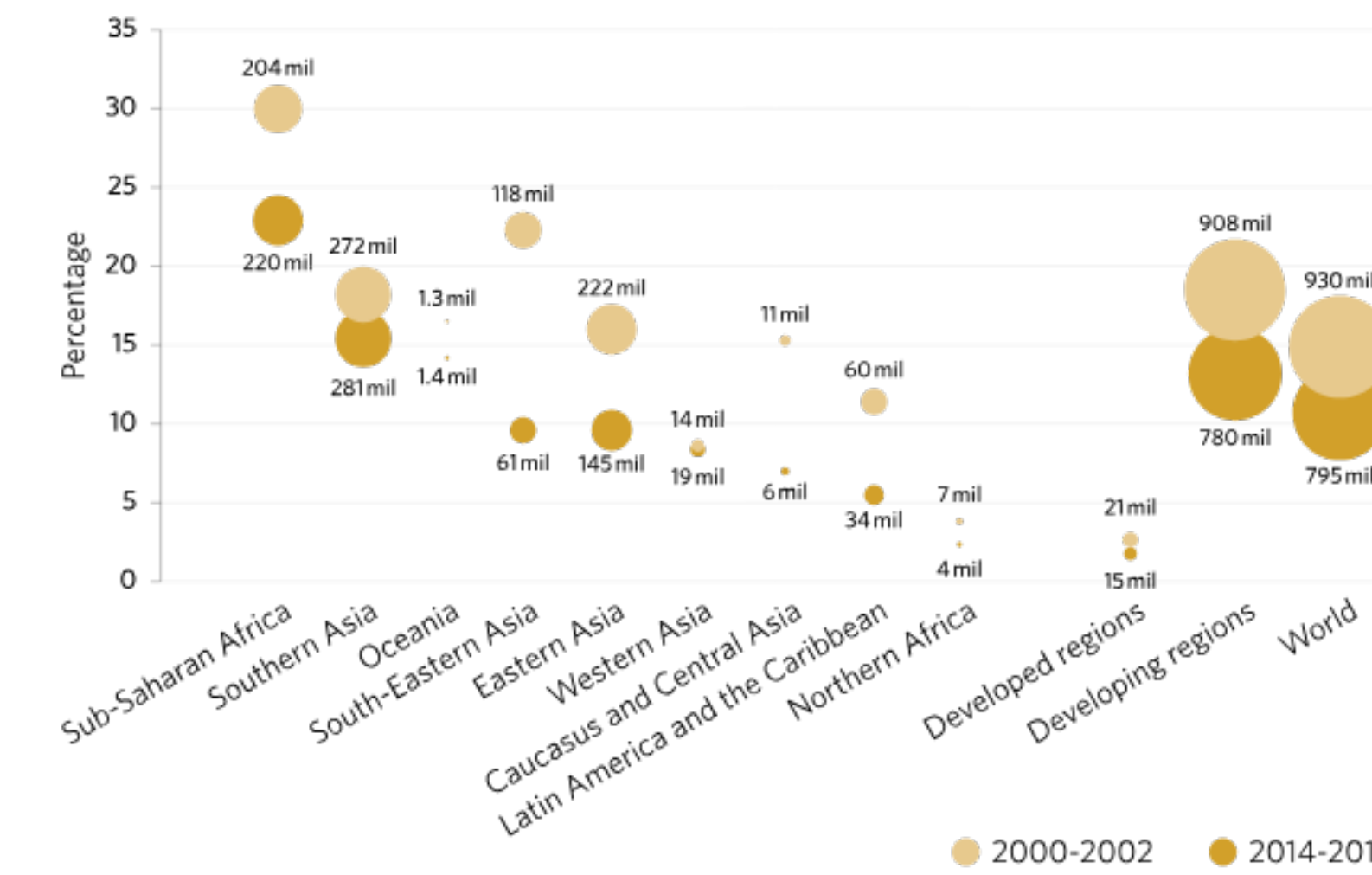


Figure 1. Number and proportion of undernourished people (millions and percentage) <https://unstats.un.org/sdgs/report/2016/goal-02/>

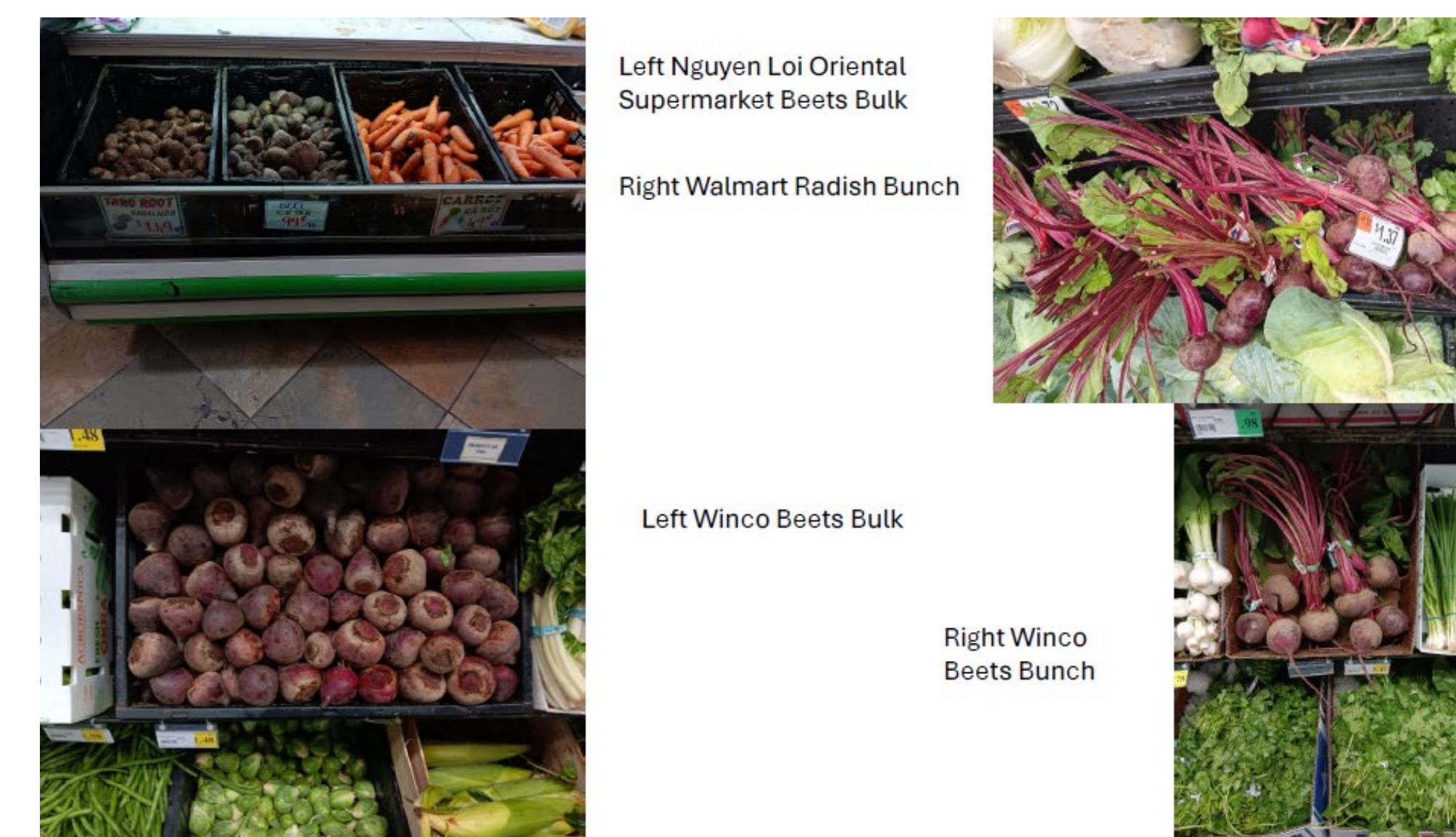
Student Reflections on Sustainability

Frist, sustainability was defined at the beginning of the course, then used as a theme to tie all the lectures together as the main idea. I understand how outside factors like poverty, famine, drought, etc. affect the food supply, and how that impacts sustainable food policies/behaviors.”

“I understand how food insecurity doesn’t just affect the poor, and how vulnerable populations aren’t always the poor ones. This geography of people can change what actions are ideal ones in that particular circumstance. I get how health and the health a population can be a determinant in the food security of a nation.”

Sustainability was the theme of the class. It was a goal and ideal end point for the topics discussed. The objective was portrayed as what must be reached to have a successful food system.”

“We discussed sub-Saharan Africa’s need to develop food systems that would be sustainable. We discussed how many grow just enough to survive and that is not sustainable.”



Farm produce stocked by different shops – shows presentation and quantities. © Aiden Wasson

References

- The Office of Sustainability, <https://www.uta.edu/campus-ops/office-of-sustainability/education-and-outreach/academics/academics>, accessed 26 November 2023
- Pérez-Escamilla, Rafael. “Food security and the 2015–2030 sustainable development goals: from human to planetary health.” *Current developments in nutrition* 1, no. 7 (2017): e000513.
- IFPRI, Food Systems, <https://www.ifpri.org/topic/food-systems>, accessed 17 March 2024
- United Nations, Department of Social and Economic Affairs, Statistics Division, “Zero Hunger,” <https://unstats.un.org/sdgs/report/2016/goal-02/>, accessed 12 February 2024
- UNICEF. “The state of food security and nutrition in the world 2020.” (2023).
- IFPRI, “Urban food systems for better diets, nutrition, and health.” (Washington, D.C.: International Food Policy Research Institute, 2018).
- Lana, Vanderlee, and R. L’Abbé Mary. “Food for thought on food environments in Canada.” *Health promotion and chronic disease prevention in Canada: research, policy and practice* 37, no. 9 (2017): 263.
- Dacunha, Chantelle, Eric Ng, and Sarah Elton. “The school food solution: Creating a healthy school food environment with Canada’s Food Guide.” *Journal of Agriculture, Food Systems, and Community Development* 12, no. 1 (2022): 157-169.
- Remley, Daniel T., Ana Claudia Zubieta, Maria Carmen Lambea, Hugo Melgar Quinonez, and Chris Taylor. “Spanish- and English-speaking client perceptions of choice food pantries.” *Journal of Hunger & Environmental Nutrition* 5, no. 1 (2010): 120-128.
- Caspi, Caitlin E., Cynthia Davey, Christina Bliss Barsness, Nora Gordon, Laura Bohren, Marna Canterbury, Hilaru Peterson, and Rebekah Pratt. “Peer Reviewed: Needs and Preferences Among Food Pantry Clients.” *Preventing Chronic Disease* 18 (2021).

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