

The Food Security Quest: Instructor Guide



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Food Security Quest Overview

Game format

The Food Security Quest is a single player online game (players interact with the game only; there is no player-to-player interaction) that allows players to make decisions on behalf of their character and then examine the consequences of those decisions. The length of game play is largely determined by the players own interest in the game. The game can be played in as little as 10 minutes, however, we anticipate that most players will play the game for about 15 to 45 minutes.

Game Structure

Upon entry into the game, players are provided with basic statistical information related to the prevalence of food insecurity in Ontario (PROOF, 2017).

Players are then presented with descriptions of four fictional characters. Each character is facing a transition or challenge in their life that puts them at risk of food insecurity.

Game Characters

The game includes the following four characters:

- **Dolores.** First Nations single mother (age 27) with two sons, Alex (age 9) and Nick (age 6). Has just finished her nursing degree and has \$25,000 in student loan debt. Is moving with her children to an urban area in Ontario to start a new nursing job.
- **Dawn.** Single female, age 59, of European background, no children, works as a contract truck driver. Lives in a rural area in Ontario. Has just been diagnosed with Type 2 diabetes. Until her diabetes stabilizes she is unable to drive.
- **Saad.** Age 36, Syrian, former math teacher. Married with three young children. Wife, Aya, is pregnant with their fourth child. Government Assistant Refugees (GARs) from Syria. Aya is on medical bed rest until the end of her pregnancy. The family follows a Halal diet.
- **Maxine,** aka “Max”, of European background, 18 years old, grew up in a working class home. Max’s relationship with her parents has been rocky since she came out to them as a lesbian. Max is leaving home to attend university in a large city.

Game Play

The goal of game play is to choose a character and then help that character navigate decision scenarios, while also trying to help the character achieve their personal goals. During game play, students are also tasked with helping the characters maintain their financial security, avoid food insecurity, and maintain wellbeing. The three metrics tracked during game play include:

- **Money.** Financial security is indicated by the amount of money available to the character to purchase goods or services.
- **Wellbeing.** Wellbeing increases and decreases as the character encounters circumstances that increase or decrease their social, emotional, psychological, physical, or personal well-being and helps the character meet their goals.
- **Food Insecurity.** The risk of food insecurity increases incrementally as each character encounters situations in which their quantity or quality of food access is compromised.

Educational Content and Reflection

Each round of the game concludes with an educational debriefing in which players are presented with information about food security and a summary of their character's experiences in that round. Players are also presented with educational content that helps explain the unique risk factors and consequences of food insecurity faced by that character. Players are encouraged to reflect on their character's experiences within the context of the five A's of food security. Players are also encouraged to play multiple rounds of the game so they can compare and contrast how different decisions or scenarios impact their character and compare and contrast the lived experiences of the different characters.

Learning Goals, Objectives, and Outcomes

Learning Goals

The Food Security Quest is designed to provide a basic introduction to the topic of food security for college or university students enrolled in a course that includes a unit on food security.

The Food Security Quest is specifically designed to address two key challenges when teaching about food security:

1. Helping students conceptualize the complexities of food security beyond a singular definition of "being able to access food".
2. Helping students empathize with the choices and trade-offs and resiliency required to live with food security.

Importantly, the Food Security Quest is designed to facilitate guided discussion and reflection about food security. Although the game has been shown to have educational impact on its own, we anticipate that the learning objectives of the game will be far more impactful when contextualized within a larger course discussion on food security.

Learning Objectives

The Food Security Quest is designed to facilitate guided discussion and reflection around the following 11 knowledge-based learning objectives, as well as 4 empathy-based learning objectives.

Knowledge-based objectives

1. Define food security as *"A condition in which all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"* (Food and Agriculture Organization (FAO) of the United Nations, <http://www.ryerson.ca/foodsecurity/our-approach/>).
2. Identify geographic disparities, prevalence statistics, and issues across Canada and Ontario.
3. Define and illustrate the Five A's of Food Security. [Definitions come from the Centre for Studies in Food Security, Ryerson University, <http://www.ryerson.ca/foodsecurity/our-approach/>]
 - **Availability** – Sufficient food for all people at all times
 - **Accessibility** – Physical and economic to food for all at all times
 - **Adequacy** – Access to food that is nutritious and safe, and produced in environmentally sustainable ways.
 - **Acceptability** – Access to culturally accepted food, which is produced and obtained in ways that do not compromise people's dignity, self-respect or human rights.
 - **Agency** – The policies and processes that enable the achievement of food security.
4. Identify and illustrate key risk factors for food insecurity, including low income, reliance on social assistance, costs of food/non-food essentials, high housing costs, geographic isolation, transportation costs, special dietary needs, low food literacy, and discrimination.
5. Recognize the limited role of individual "choice" and the importance of structural factors and policies.
6. Illustrate how structural inequality puts certain populations at higher risk for food insecurity, including Aboriginal people, lone-parent families (especially female lone-parents), immigrants, children and youth, elderly, visible minorities, and individuals with disability and chronic disease.

7. Highlight and educate users about Indigenous Canadian history, specifically how the Indian Act, Reservation/Pass System and Residential Schooling has caused detrimental intergenerational impacts in terms of social, political, and economic outcomes as well as with the relationship with food that has contributed to the alarmingly high prevalence of food insecurity in Indigenous populations.
8. Understand how food security fits into the “larger picture” of food systems.
9. Illustrate the resiliency, strength, and resolve required to persevere in the face of significant structural barriers and severe adversity.
10. Identify specific challenges face by people in Ontario that are vulnerable to food insecurity.
11. Illustrate the limits of existing ameliorative efforts to reduce food insecurity (i.e., reliance on food banks and social assistance) and encourage players to critically reflect on transformative structural solutions to food inequality.

Empathy-Based Objectives

1. Build empathy and understanding for the long term and short term choices and trade-offs that are required in making financial, social, and personal decisions related to food security
2. Develop appreciation for the resiliency, strength, and resolve required to persevere in the face of significant structural barriers and severe adversity.
3. Encourage players to engage in self-reflection about one’s own risk and protective factors and (if applicable) to reflect on the structural barriers that they have faced in their own lives and/or the responsibilities that come from having social, economic, and political privilege.

Learning Outcomes

To facilitate discussion and reflection about food security, the game itself includes learning content designed to directly facilitate the following six learning outcomes:

1. **Recognize the wide-spread prevalence of food insecurity in Ontario**
 - Introduce prevalence statistics of food insecurity in Ontario.
 - Illustrate the levels of food security as defined by the Household Food Security Survey Module (HFSSM).
2. **Contextualize food security within the context of the Five A’s of food security as defined by Ryerson University.** (Definitions quoted directly from the Centre for Studies in Food Security, <http://www.ryerson.ca/foodsecurity/our-approach/>):
 - **Availability:** Sufficient food for all people at all times.

- **Accessibility:** Physical and economic access to food for all at all times.
- **Adequacy:** Access to food that is nutritious and safe, and produced in environmentally sustainable ways.
- **Acceptability:** Access to culturally acceptable food, which is produced and obtained in ways that do not compromise people's dignity, self-respect or human rights.
- **Agency:** The policies and processes that enable the achievement of food security.

3. **Identify key income-related risk factors for food insecurity.**

- Low income (PROOF, 2017; Dieticians of Canada, 2016).
- Reliance on social assistance (PROOF, 2017; Tarasuk, Mitchell, & Dachner, 2014; Silverthorn, 2016).
- High cost of food, especially in northern and remote on-reserve communities (Veeraraghavan & Sheedy, 2016; Nutritious Food Basket Scenarios).
- High cost of housing and other expenses (Nutritious Food Basket Scenarios).

4. **Appreciate how structural inequality puts certain populations of individuals at higher risk for food insecurity.**

- First Nations (Baskin et al., 2009; Dieticians of Canada, 2016; Reading & Wien, 2009; Veeraraghavan & Sheedy, 2016).
- Families with children (Dieticians of Canada, 2016).
- Lone-parent households, especially lone-mother households (Dieticians of Canada, 2016; PROOF, 2017).
- Government-assisted refugees (Huang, 2014).
- Racialized groups, ethnic minorities, and other minority groups (Dieticians of Canada Executive Summary, 2016).
- Individuals with chronic illness and disability (Dieticians of Canada Executive Summary, 2016; PROOF, 2017).
- Single aging adults, aged 60-64 (Dieticians of Canada, 2016)
- LGBTQ+ youth (Brown, Romero, & Gates, 2016)

5. **Accept the limits of existing ameliorative efforts to reduce food insecurity.**

- Lack of government programs in Canada that focus specifically on food security (PROOF, 2017)
- The severe limitations of food banks to protect people from food insecurity (Kirkpatrick & Tarasuk, 2009).
- Limited ability of skills-based education to reduce food insecurity, as experiences of food insecurity are not linked to lower knowledge and skills around food preparation, but rather to lower income (PROOF, 2017).

6. **Internalize empathy for individuals living with food insecurity.**

- Build empathy and understanding for the long term and short term choices and trade-offs that are required in making financial, social, and personal decisions related to food security.

- Develop appreciation for the resiliency, strength, and resolve required to persevere in the face of significant structural barriers and severe adversity.
- Recognize the limited role of individual “choice” and the importance of structural factors and policies in determining food security.
- Highlight and educate users about the detrimental impact of discriminatory policies on First Nations communities.

Guidelines for Use

The following guidelines are designed to help faculty use the Food Security Quest in their classrooms.

1. Provide students with a context for why you are encouraging them to play the Food Security Quest.
2. Make sure that students give themselves at least 30 minutes to play the game and quietly reflect on it.
3. Encourage students to play multiple rounds of the same character, as well as multiple characters.
4. Immediately following game play, encourage students to engage in an explicit reflection on their game experience. Potential reflection questions might include:
 - In what ways did you find the game to be realistic or not realistic in portraying issues of food security? Why?
 - Were there aspects of the game surprised you? What did you find surprising? Do you think others might find this surprising as well? Why or why not?
 - Did playing the Food Security Quest cause you to question your own beliefs, attitudes, and/or knowledge? If so, in what ways?
 - When playing multiple rounds of the same character how did your experiences and outcomes change from round to round? What did you learn from this contrast? How often do we get an opportunity to learn from “do overs” in real life?
 - When playing multiple rounds of the game across different characters, how did your experiences differ from character to character? What factors might impact the **lived experience** of food security?

5. Using class time or online discussion boards, engage students in a guided reflection and discussion of the activity. Potential discussion questions could focus on any of the reflection questions presented earlier. The discussion could also focus on explicitly tying students' experiences with the Food Security Quest to other course content, research, and applications being discussed within the course.
6. Encourage students to learn more about Food Security. The resources presented in the next section were used to create content for the game. These resources may also be a good starting point for helping your students learn more about food security.

Additional Learning Resources

To learn more about food security:

- Ryerson University Centre for Studies in Food Security:
<https://www.ryerson.ca/foodsecurity/>
- PROOF Canada: <http://proof.utoronto.ca/>
- Dietitians of Canada. (2016). *Addressing household food insecurity in Canada: Position statement and recommendations from Dietitians of Canada*. Retrieved from www.dietitians.ca/foodinsecurity
- The Household Food Security Survey Module (HFSSM):
<https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/household-food-insecurity-canada-overview/household-food-security-survey-module-hfssm-health-nutrition-surveys-health-canada.html>
- Food and Agriculture Organization of the United Nations:
<http://www.fao.org/home/en/>

To learn more about food security in First Nations communities:

- Baskin, C., Guarisco, B., Koleszar-Green, R., Melanson, N., & Osawamick, C. (2008). *Struggles, strengths and solutions: Exploring food security with young Aboriginal moms*. Ryerson University Centre for Studies in Food Security.
- Chan, L., Receveur, O., Batal, M., David, W., Schwartz, H., Ing, A., ... & Tikhonov, C. (2014). *First nations food, nutrition and environment study (FNFNES): results from Ontario (2011/2012)*. Ottawa: University of Ottawa. Retrieved from <http://www.fnfnes.ca/download>

- Veeraraghavan, G., Burnett, K., & Skinner, K. (2016). Paying for nutrition: a report on food costing in the North. Ottawa (ON): Food Secure Canada. Retrieved from <https://foodsecurecanada.org/paying-for-nutrition>

To learn more about food security and diabetes:

- Chan, J., DeMelo, M., Gingras, J., & Gucciardi, E. (2015). Challenges of diabetes self-management in adults affected by food insecurity in a large urban centre of Ontario, Canada. *International journal of endocrinology*, 2015.
- Vick, A. (2014). Living and working precariously with an episodic disability: Barriers in the Canadian context. *Canadian Journal of Disability Studies*, 3(3), 1-28.

To learn more about food security among refugees:

- Huang, E. (2014). *Assessing the barriers and facilitators to food security that influence dietary changes among refugees* (Doctoral dissertation). Retrieved from <https://macsphere.mcmaster.ca/handle/11375/16425>

To learn more about food security among students:

- Silverthorn, D. (2016). Hungry for Knowledge: Assessing the prevalence of student food insecurity on five Canadian campuses. *Toronto: Meal Exchange*. Retrieved from <https://www.mealexchange.com/hungry-for-knowledge>
- To learn more about food security among LGBTQA youth:
- Brown, T. N., Romero, A. P., & Gates, G. J. (2016). Food Insecurity and SNAP Participation in the LGBT Community. Retrieved from <http://williamsinstitute.law.ucla.edu/wp-content/uploads/Food-Insecurity-and-SNAP-Participation-in-the-LGBT-Community.pdf>