NCR-SARE project # GNC18-256 USDA-NIFA project # 2016-38640-25381

Project Outcomes of Food Systems Thinker Educational Experience

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PROJECT OUTCOMES

Learning Outcomes

1. Learners increased knowledge about sustainability and systems thinking.
2. Learners had a greater understanding of the importance to support sustainable agriculture.
3. Learners were aware of the consequences their food choices have on the environment, economy, and community.

Action Outcomes

1. This project mobilized a network of high school students, farmers, and agricultural professionals.
2. Farmers were recognized for their work and shared their stories as educators.
3. The developed resources have been publicly available to foster the appreciation for sustainable agriculture and help learners make informed food choices.
4. Learners gained insights in sustainable practices and connected to farmers at the local level to strengthen the local community.
5. Learners were supported to develop life-long learning regarding sustainable food systems, apply sustainability concepts in everyday decisions, and change behaviors to be pro-environmental.

CURRICULUM OUTLINE

Modules	Descriptions
1	- Components & relationships in food systems - 6 levels of food systems (individual to global) - Interactions with other systems (health, eco-, political, economic, cultural, climate systems)
2	- Key players: roles & various perspectives - Influencing forces in food systems - Inputs, outputs, stock, and flow in a system
3	- Food waste: problems & solutions - Climate change & biodiversity
4	- Supporting a sustainable food system as a consumer & citizen - Working with the local community to address food insecurity

FOOD SYSTEMS THINKER EXPERIENCE

Categories	Descriptions
Guest Speakers	- Mary Lutz, urban farmer of Greater Lafayette area - Gary Cox, diversified organic farmer - Dr. Ken Foster, agricultural economics professor and beekeeper - John Sherck, organic grain farmer and seed saver - Sharrona Moore, community garden founder and manager - Dr. Steve Hallett, horticulture professor and organic farmer
Experiential Learning Activities	- Interacting with guest speakers to learn real-world local examples - Volunteering at the local food pantry/food bank - Engaging in hands-on activities at a diversified organic farm - Visiting a university student farm - Using reusable tableware during lunch - Reflecting on the learning experiences using Scaffolding Worksheets
Systems Thinking Concepts	- relationships - variables - delay - boundary - inputs & outputs - feedback - dynamics - stock & flow - time horizon - perspectives - leverage point - interactions

Food Systems Thinker Curriculum
https://tinyurl.com/4oa8kozp

STUDENTS' PERCEPTIONS

Success Stories

"...I learn more about food systems through the field trips and the lessons and that the food system has a big impact on the environment more than what I thought it had…. I think the field trips were very fun and educational. I really liked going out to the farm and everything. And I also liked going to the food pantry, getting in some volunteer hours, and seeing what they do at the food pantry and what they do for the homeless people. I think the online lessons helped a lot. It put a lot of background information into the field trips."

(Student 1, female, grade 11)

"I really enjoyed this. I've never been made to think about something. I've always just learned it, memorized it, and then moved on. Then I've never actually had to do something about it or go and see what we were learning about. And [this program] makes you think a lot more and I really liked it."

(Student 2, female, grade 11)

"I really enjoy the field trips to see the farmers. I liked actually being able to get out and see what they are doing and the idea of how they operate a farm without using chemicals and without using traditional large-scale methods. That was interesting." And "If you choose to grow different apples, it can benefit the environment in different ways and it can be more resistant to different diseases. That was very interesting to learn about. That was my favorite episode."

(Student 3, male, grade 10)

Students' Perceptions Toward the Program (N=12)

Items	% of agreement
I can use what I learn in this learning experience.	100
I have a greater understanding of how my food choices are related to the food systems as a whole.	100
I'd recommend this learning experience.	100
Interacting with guest speakers was valuable to me.	100
Visiting the diversified organic farm was valuable to me.	100
This experience effectively challenged me to think.	92
I liked learning from examples in Indiana.	91
Volunteering at the food pantry was valuable to me.	83
I developed the ability to think in systems thinking way.	75
Online lessons provided an effective learning experience.	75
Worksheets effectively helped me learn the online lessons.	75
This learning experience gave me skills and techniques directly applicable to my future career.	67

The authors thank Karen A. Mitchell, Drs. Tamara J. Benjamin, Hannah H. Scherer, Daniel P. Shepardson, and Hui-Hui Wang for serving on the Curriculum Advisory Panel.

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