From Cutting Boards to Codebook: Designing and Evaluating Lesson 2- Culinary Nutrition for the Nourish Study

Ashleigh Fletcher, BS, MPH Candidate, Melissa Prescott PhD, RDN

Case Western Reserve University

Background

The Nourish program, a community-based cooking and food skills intervention, aims to reduce nutrition insecurity and food waste in Cuyahoga County. Lesson 2: Culinary Nutrition introduces participants to food literacy concepts like goal setting, fat types, added sugars, and meal balancing through hands-on cooking activities. A gamified "Create Your Plate" activity and real-time nutrition reflection are also included

Population

- Adults (18+) from Cuyahoga County and English speaking.
- Previous participants and non-English speakers were excluded.

Learning Objectives

Apply Social Cognitive Theory (SCT) and nutrition-education best practices to strengthen the design and delivery of Lesson 2: Culinary Nutrition.

- Enhance cooking confidence as a key driver of long-term health among program participants.
- Evaluate participant experience through classroom observations and brief satisfaction surveys to assess engagement and instructional effectiveness.
- Translate scientific literature and insights from a journal-club discussion into concrete lesson refinements that improved engagement, clarity, and practical impact.

Methods and Results

A literature review and participation in a journal club on Social Cognitive Theory (SCT) within food skills interventions aligned with Gordillo & Prescott, Nutrients (2023) informed curriculum development. Reflection-based learning activities and instructor prompts fostered engagement, while a customizable Create Your Plate Activity and a tested recipe reinforced key nutrition concepts. An Instructor Guide detailed lesson timing, transitions, and slide references, and a Coaching Guide supported consistent nutrition-focused discussions. The lesson was implemented across four Nourish classes focused on goal setting, healthy fats, and balanced meal composition. Data collection used a standardized Food Waste Log codebook and database shell for uniform entry and coding. Participant feedback was obtained through a nine-domain five-star satisfaction survey, and food coaches submitted structured reflections evaluating lesson flow, engagement, and facilitation. Survey results indicated high satisfaction across both cohorts. Ratings for class use of time were consistent (Cohort 1: 4.68; Cohort 2: 4.63), while inclusivity and topic relevance received near-perfect scores (both ≥ 4.9). Video quality showed the greatest difference between cohorts (Cohort 1: 4.25; Cohort 2: 4.69). Instructional domains—including helpfulness during activities, clarity of cooking tasks, and quality of grocery items—demonstrated strong consistency across cohorts. Usefulness of kitchen items was rated slightly higher in Cohort 1 (4.81) compared with Cohort 2 (4.63). Overall satisfaction was highest in Cohort 1 (5.00) relative to Cohort 2 (4.63).

Metric	Cohort 1: Intervention and Control	Cohort 2: Intervention and Control
Class use of time	4.68	4.63
Inclusive environment	4.94	4.94
Topic relevance	4.93	4.96
Video quality	4.25	4.69
Helpfulness during activities	4.75	4.80
Clarity of cooking tasks	4.81	4.85
Quality of grocery items	4.94	4.96
Usefulness of kitchen items	4.81	4.63
Overall satisfaction	5.00	4.63

Figure 1— Results from 5-Star Participant feedback forms. Average is out of 5 stars






Figure 2- Photos of Lesson 2 in action.

Deliverables and Activities

- Developed and delivered a hands-on nutrition lesson (fiber, fats, sugars, balance)
- Created instructor & coaching guides for consistent delivery
- Built food waste log codebook & database for standardized data collection
- Collected participant feedback (5-star survey, $n = 56$ across 4 classes)
- Analyzed food coach reflections on engagement & lesson flow
- Contributed to journal club review (Gordillo & Prescott, 2023) to ground design in behavioral theory

Lessons Learned

This project highlighted the choreography needed for an effective community lesson. Grounded in Social Cognitive Theory, Lesson 2 intentionally engaged all seven constructs treating SCT as an integrated system while remaining practical and adaptable through structured guides, evaluations, and tested activities.

- Developed and delivered a hands-on nutrition lesson (fiber, fats, sugars, balance)
- Behavioral capability: hands-on fats, labels, balanced meals
- self-efficacy: knife skills, timed recipes
- Observational learning: coach-modeled techniques
- Reinforcement: taste-tests, shout-outs, stars
- Self-regulation: goal setting, Food Waste Log
- Expectations: sugar swaps, Create-Your-Plate and reflections on valued benefits

Public Health Implications

This model shows how theory-driven, hands-on cooking can be embedded in community programs to expand access to low-cost, practical nutrition strategies. By promoting "use-what-you-have" approaches, it reduces food waste, supports sustainable eating, and aligns dietary guidance with environmental priorities.