



Measuring the Long-Term Impact of Behavioral Interventions in School Cafeterias

Presented by Drew Hanks, PhD and Haleigh Golub, MS, The Ohio State University

Welcome, thank you for joining!

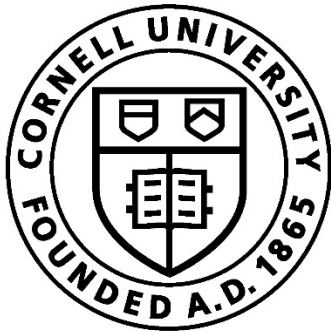
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During the last 10 minutes of this presentation Drew and Haleigh will address as many questions as time allows. To ask a question please use the Q & A feature.

If you are interested in joining the Healthy Food Choices in Schools Community of Practice or have any questions, please contact us at:
healthy_food_choices_in_schools@cornell.edu



Research Funding



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Learning Objectives

1. Identify a point in time over the course of a school semester in which Smarter Lunchrooms Movement (SLM) interventions begin to lose their effect and should be refreshed
2. Identify whether or not SLM interventions lead to lasting behavior changes after the interventions are removed
3. Identify resources for developing and refreshing SLM interventions



Why did we perform the two studies?

- SLM interventions have only been implemented over short time frames and without follow-up data collection
- We do not know:
 1. Do longer-term interventions lose their effect as students become accustomed to the intervention?
 2. Are the behavior changes persistent?
- Ultimate goal: identify timelines that sustain beneficial effects of SLM interventions



Study Methods

- Two study designs:
 - Question 1: when do students become bored? → Long-term study
 - Question 2: persistent behavior? → ABA study
- Sixteen week timeline in 6 middle schools (grades 6-8) from a large urban area
- Schools implemented an identical SLM intervention:
 - Name the Vegetables
 - Move the Fruit
 - Increase white milk availability by 10% and place in front of chocolate milk in the coolers
- Researchers visited schools twice per week to collect selection and consumption data via Quarter Waste Method



*How difficult is it to maintain
SLM interventions over
longer periods of time?*



SLM Intervention Component Fidelity

Intervention Component	% Implemented Correctly	% Implemented Incorrectly
Fruit in 2 locations	99.4	0.6
Fresh fruit is in bowl	99.4	0.6
All vegetables labeled	99.4	0.6
Plain milk increased availability	99.2	0.8
Plain milk is in front of chocolate	98.5	1.5

n = 96 observations

Intervention components were implemented correctly in over 98.5% of observations throughout the entire 16 week study

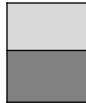
Do longer-term SLM interventions lose their effect as students become accustomed to the intervention?



Study 1 Research Timeline

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
School 1																
School 2																
School 3																
School 4																
School 5																

Control
 Intervention



Study 1 Key Highlights

- Intervention impact peaks at about 9 weeks
 - Our suggestion is that foodservice personnel “refresh” the intervention every 8 to 10 weeks
- In some cases (especially with entrées), the intervention has an impact over the whole semester
 - Because novelty is generally an effective strategy, it is still not a bad idea to “refresh”



Do SLM interventions lead to lasting behavior change after the interventions are removed?



Study 2 Research Timeline

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
School 1																
School 2																

Control 
 Intervention 



Study 2 Key Highlights

- Students wasted less of the NSLP entrée and more of the NSLP fruit on their trays when the SLM intervention was in place
- No evidence that the effects persisted
- To facilitate persistent behavioral changes, SLM interventions may need to be:
 - A. In place for longer
 - B. Combined with additional school-based behavioral interventions
 - Convenience line
 - Incentives for selecting healthier foods



*Where are resources for
implementing/updating SLM
interventions located?*



<http://smarterlunchrooms.org>

**Tools and resources to develop SLM
Interventions**



Ideas for Updating Interventions

- Have signs that display fruit specials
- Prompt students to take a fruit or vegetable
- Create a SNAC (Student Nutrition Action Committee) of students responsible for the naming of and creating signage
- Display creative names on a large menu board in the cafeteria
- For older students, display fun nutritional benefits of consuming specific fruits and vegetables (e.g. carrots are important for keeping your eyes healthy)



Acknowledgments

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- School lunch staff
- OSU research assistants



Thank you for attending!

We hope you found the presentation informative and useful!

A recording of this webinar will be available shortly at:

<https://learn.extension.org/events/2856>

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