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# Process Evaluation Measures Effectively Assess Fidelity of Fuel for Fun Classroom Lessons

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# Process Evaluation Measures Effectively Assess Fidelity of Fuel for Fun Classroom Lessons

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**Fuel  
for Fun**  
Cooking  
with Kids Plus Parents  
And Play



# Objective

- To assess the fidelity of the Fuel for Fun **cooking and tasting classroom lessons** in year 1 of program intervention using 3 process evaluation measures

# Study Design

- Fuel for Fun is a school-based research program, including 5 components:
  - 1) Cooking and Tasting Classroom Lessons**
  - 2) Sports Play and Active Recreation for Kids (SPARK) Active Recess**
  - 3) Cafeteria Connection**
  - 4) Family**
  - 5) About Eating**
- Process evaluation for cooking & tasting lessons was conducted in year 1 of Fuel for Fun intervention



# Setting and Participants



- 8 elementary schools



- 22 4<sup>th</sup> grade classrooms



- 476 4<sup>th</sup> grade students

# Intervention

- 5 cooking and 5 tasting lessons in classrooms

## 5 Cooking Lessons

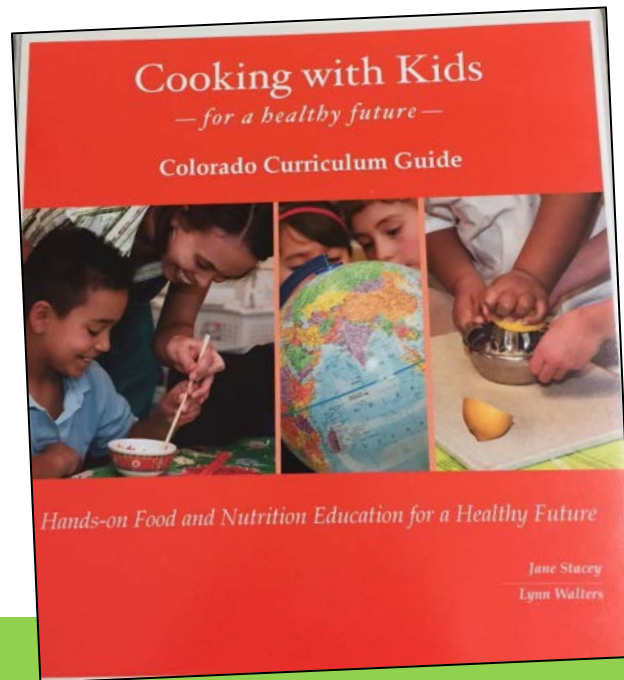
- Chinese American Fried Rice
- Minestrone
- Black Bean Tostadas
- Llapingachos
- Paella

## 5 Tasting Lessons

- Introduction with Cantaloupe Sample
- Apples
- Citrus
- Salad Greens
- Peas

# Intervention (Cont.)

- Trained **food educators** led all 10 lessons
- Trained **college students** assisted with lessons
- **Cooking with Kids Colorado Curriculum** was used for implementation of lessons



# Outcome Measures and Analysis

Describe  
each in  
notes?  
How?

## 3 Process Evaluation Measures:

- 1) Tested classroom **lesson observation forms\*** completed by evaluation personnel
- 2) Classroom **lesson debriefing forms** completed by educators after each lesson
- 3) Weekly **team meeting transcripts** recorded



\*Cunningham-Sabo, L. et al. (2008) JNEB 40: S84



# Outcome Measures and Analysis

Other suggestions on how to articulate how thematic analysis was done? See notes.

- Lesson components checklist

Highest Possible Score: 21 cooking  
17 tasting

- Classroom management

3= no problems

1= major problems

- Student engagement

4= actively involved

1= uninterested

- Used descriptive statistics and thematic analysis of observation comments

Colorado State University CWK Classroom Observation Form

Lesson \_\_\_\_\_ Classroom observation \_\_\_\_\_

Date	Start time	End time	Are there any ESL students?
Teacher	Grade/#students	# Volunteers	Food Educator
School	Class location (circle) Classroom Cafeteria Other _____		

Procedures/Curriculum Guide	Notes/Augmentation
Set up: organize, name tags, etc.	✓
Introduction: classroom rules, review of previous recipe, show of hands who made the recipe at home, etc.	
Tell or write what class is making (CE)	
Identify and discuss ingredients	
Student map activity	
Read food and nutrition information	
Discuss questions or related topics (RO)	
Wash hands/hair ties	
Divide students into groups	
Allocate a recipe/adult to each group (AC)	
Demonstrates safety	
Children read recipes (AE)	
Children prepare food (AE)	
Food writing activity (AC)	
Encourage/model good Manners	
Play music	



# Results

- Completed in Year 1 of Intervention:
  - **14 classroom lesson observation forms**
    - 5 cooking
    - 9 tasting
  - **214 classroom lesson debriefing forms**
  - **Compiled weekly meeting transcripts**

# Results (Cont.)

This data from observation forms only- see notes for engagement data from Rae's analysis of 99 debrief forms- HOW REPRESENT?

Assessment Component		Mean
Lesson Components Checklist	Cooking (Highest 21)	<b>18.6 (<math>\pm 1.6</math>)</b>
	Tasting (Highest 17)	<b>15.0 (<math>\pm 1.7</math>)</b>
Classroom Management	3 = No Problems 1 = Major Problems	<b>2.8 (<math>\pm .41</math>)</b>
Student Engagement	4 = Actively Involved 1 = Uninvolved	<b>3.6 (<math>\pm .73</math>)</b>

# Results (Cont.)

- Thematic analysis revealed 3 major findings:

Priority to keep children as engaged as possible at all times with hands-on activity

Educator flexibility critical when working with teachers and students in the classroom

Beneficial to reinforce student behavioral expectations with every lesson

# Conclusions and Implications

- Classroom lesson fidelity was maintained while remaining flexible to the classroom situation
- Process evaluation measures were valuable in assessing lesson fidelity in year 1 and in providing direction for future intervention implementation

# Funding

- Agriculture and Food Research Initiative Grant no. 2012-68001-19603 from the USDA National Institute of Food and Agriculture, Childhood Obesity Prevention: Integrated Research, Education, and Extension to Prevent Childhood Obesity – A2101.

# Questions?

