Grant Proposal: A sensory and cultural exploration of food aimed at increasing student willingness to try and consume vegetables at Asheville City Schools with TASTE

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Date

Approved by: (Paper Advisor)

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School Information

School Name
Hall Fletcher Elementary School

Type of School
Elementary – grades K-5

School Enrollment
310 students

School Free and Reduced Percentage
51%

ADP as a Percentage of Enrollment
52%

Project Goals and Details

Project Description: Goal 1
Describe how your project will use taste testing and recipes to increase student exposure of fresh fruits, vegetables, and/or scratch cooked recipes

Childhood is a critical time for the development of eating patterns and behaviors. At Asheville City Schools School Nutrition Department, we believe that it is our responsibility to help shape these attitudes in a way that encourages a lifetime of healthy eating in our students. School nutrition departments across the country face challenges such as competition from calorically dense snack foods brought from home, low food acceptance due to limited diets in the home environment, and diminished emphasis on nutrition education in the school system. With help from the Project Produce grant, we hope to create an engaging environment where students can explore the intersection of food and culture, discover new favorite vegetables, learn about exciting cuisines from around the world, and play an active role in shaping the school menu through the proposed TASTE: Try And See Taste Exploration Program.

According to data from the National Health and Nutrition Examination Survey (NHANES), school-age children’s consumption of vegetables is roughly 40% of the recommended intake, compared with consumption of nearly 75% of the recommended fruit
intake (U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2015). Because of the low likelihood that school-age children will meet the Dietary Guidelines for American’s recommendations for vegetables, TASTE’s food samples will focus on vegetables. To address Goal 1, TASTE will include six taste tests throughout the fall semester, and will take place in the cafeteria of Hall Fletcher Elementary School during students’ normal lunch period. Six different seasonal vegetables will be procured, from local farmers when possible, to be used in the taste tests. Each tasting day (Friday Try-Day) will feature the selected vegetable in two different ways: raw and used in a recipe.

Asheville is home to a multicultural population and within Asheville City Schools (ACS) 39% of the student population is a racial or ethnic minority (Asheville City Schools, 2018). Additionally, the current generation of students is coming of age in a highly connected world. Market research shows that now more than ever, children and teens crave global cuisines and a (real or perceived) social value from their menu, such as foods that are ethically sourced or are purchased from companies that make charitable contributions from their profits. (Navarra, 2018; Watrous, 2018). For these reasons, TASTE’s vegetable recipes will each highlight a different culture or world region.

Studies show that increased exposure to produce increases students’ consumption of fruits and vegetables (Knai, Pomerleau, Lock, & McKee, 2006), which is why TASTE aims to increase students’ exposure, even outside of the official cafeteria-based grant activities, through engagement in the home environment and during classroom activities.

To further address Goal 1 and increase students’ exposure to produce, through the TASTE program, families will be invited to cook with and eat more of the featured produce at home by sending home recipes and cooking challenges. Pictures and social media posts about these experiences will be encouraged, which will hopefully further promote vegetable consumption in the school community. Hall Fletcher Elementary School also benefits from having a school garden maintained by local non-profit FEAST (Fresh Easy Affordable Sustainable Tasty). Students participate in FEAST garden classes, where their mission is to “empower youth and families to grow, prepare, and enjoy fruits and veggies” (“Hall Fletcher Elementary FEAST Garden,” n.d., para. 2).

As an additional way to address Goal 1, FEAST classes during TASTE implementation will incorporate the produce being used for taste tests to further increase students’ exposure to the vegetables. This may involve planting, tending, and/or harvesting the same vegetable, or discussing it during the lessons. Positive results from gardening-based interventions aimed at increasing fruit and vegetable consumption in children are well documented. These studies show that including a gardening and/or hands-on component is more effective at improving children’s nutrition-related knowledge, preferences for vegetables, self-efficacy in preparing vegetables, and consumption of vegetables when compared to nutrition education alone. (McAleese & Rankin, 2007; Parmer, Salisbury-Glennon, Shannon, & Struempler, 2009).

To accomplish Goal 1 TASTE will:

- Provide six Friday Try-Days focusing on raw vegetables and multicultural recipes during students’ lunch period
- Utilize FEAST garden classes as an additional avenue for vegetable exposure
- Send home recipes and challenges to families

**Project Description: Goal 2**
Describe the food literacy and nutrition education that will complement your taste testing and recipe testing

Character Limit: 5000

Methods for and effectiveness of nutrition education for children have been extensively researched, and to date a wide variety of options exist. Given the time constraints of providing taste tests and nutrition education during students’ normal lunch period, TASTE’s focus will be primarily on creating a positive experience around new foods rather than didactic methods of nutrition education to address Goal 2.

Food neophobia is prevalent among children, which could threaten the success of any taste test involving unfamiliar foods. Through the TASTE program, we will attempt to counter this threat by using a sensory exploration of the foods. By encouraging students to use all of their senses (as opposed to just taste), we will create a fun and safe environment in which to explore new foods. Even though all of our senses affect our enjoyment of a food, taste is often the predominant sense that is considered. Encouraging children to describe vegetables’ fun colors, the interesting sound they make when you bite into them, the differing scents between a cooked and a raw vegetable, and the surprising textures may open alternative avenues for enjoyment of a food beyond taste. We believe that if provided an opportunity to learn about a new vegetable, a child who at first is reluctant to taste it may be more willing after repeated exposure and probing with other senses. All nutrition education leaders for TASTE will be trained on the importance of allowing students to explore the food at the students’ own comfort level. Compost bins also will be provided to allow students to spit the food out if they don’t like it. Making it all right for a student to dislike a new food, rather than feel obligated to eat it, will hopefully embolden students to continue trying new foods.

In addition to the FEAST garden at Hall Fletcher Elementary School, ACS School Nutrition will benefit from two other enthusiastic partners to help bring TASTE’s food literacy and nutrition education activities to fruition. These are EFNEP and ASAP, described below.

North Carolina’s Expanded Food and Nutrition Education Program’s (EFNEP) mission is to “improve the health of limited resource youth and families with young children through practical lessons on: basic nutrition and healthy lifestyles, resource management and food safety” (“What is EFNEP?”, n.d., para. 2). To achieve this mission, EFNEP staff provide educational sessions on a variety of topics related to health and food behaviors, which makes EFNEP a natural partner for TASTE. The knowledgeable staff at Buncombe County’s EFNEP have agreed to facilitate the implementation of the nutrition education and food literacy components on Friday Try-Days. Their expertise will be supplemented with visits from local farmers and cultural leaders.
Appalachian Sustainable Agriculture Project (ASAP) is a non-profit organization with roots in Asheville. Its mission includes linking farmers to supporters and building healthy communities through connections to local food (“About ASAP,” n.d., para. 1). ACS School Nutrition will be partnering with ASAP to help source local produce and bring in farmers to talk about their crops for TASTE. Since farmers are business owners, ACS School Nutrition will feature the farmers’ profiles with links to where the produce can be purchased on school bulletin boards, on relevant social media posts about TASTE, and in school nutrition newsletters sent out during implementation. This will serve as a ‘thank-you’ for their donated time spent educating students about their produce, as well as increase excitement around local produce. Education from farmers will inspire kids’ interest in the food system as a whole.

When possible, produce will be presented in a recipe from a different culture, and an expert on that culture (religious leader, native of the region, etc.) will be present to discuss the significance of the vegetable and/or the recipe. Food is widely recognized to be more than a means of preventing starvation and more than individual preference; food also conveys cultural messages which are dependent on the social context in which the foods are consumed (Murcott, 1982). Presenting foods in established cultural and social contexts assigns meaning to the food, and this meaning can positively influence children’s relationship with that vegetable or recipe, even if they don’t love it at first taste. This also provides a novel experience in which children are given new ways to try foods that they may have previously disliked.

In addition to these outside partners, food service staff will also play an important role in TASTE. The Cafeteria Power Plus project demonstrated that verbal encouragement to choose fruits and vegetables as students went through the lunch line was associated with an increase in consumption of fruits and vegetables (Perry, et al., 2004). Based upon these findings, training will be provided for cafeteria staff at Hall Fletcher Elementary School about helpful language (“Would you like some salad, too?” vs. “You can have green beans or salad”) and praising students who choose a vegetable. To prevent any mixed messaging, information also will be sent to teachers who assist in the school lunchroom. ACS offers unlimited fruits and vegetables with each school meal, which eliminates financial barriers to increasing fruit and vegetable intake for students who participate in school meals.

To address Goal 2 TASTE will:
- Provide a sensory exploration of vegetables led by knowledgeable EFNEP staff, farmers, and cultural leaders
- Educate food service staff and teachers on verbally encouraging students to choose fruits and vegetables in the lunch line
Project Description: Goal 3
Describe how you will support a student peer-to-peer marketing campaign. Once students discover their favorite fruits, vegetables, and recipes, describe how they will take an active role in promoting the items with their peers.

A growing body of evidence suggests that interventions that include peer-teaching are beneficial for both the younger students who look up to their older peers, as well as the older students who benefit from choosing to be positive role models. The Healthy Buddies program successfully utilized older students as role models and teachers for younger students in the same school and improved health-related knowledge for both age groups (Stock, et al., 2007), and a program evaluation of the TEENS study found that the participants “learned more about healthy eating... and ate more healthfully as a result of being a peer leader” (Story, Ltyle, Birnbaum, & Perry, 2002, p. 125). TASTE will utilize a peer-to-peer marketing campaign in a number of ways.

Fifth-grade students, the highest grade at Hall Fletcher Elementary School, will be recruited to help with peer marketing. These older students may come into contact with all other grade levels at different times of the school day, such as at assemblies, in the hallways, or on buses in addition to TASTE activities occurring in the cafeteria. Participation in the peer-marketing component will be based on student interest, followed by endorsement of the student by the teacher. This will ensure that students who are interested will be able to participate and that students will be mature enough to handle the responsibilities. During the second week of the semester the ACS School Nutrition Director will visit Hall Fletcher Elementary to explain the roles and responsibilities to the fifth-graders who will participate in the peer-marketing aspect of TASTE. Selected students will receive a brief training later the same week, including training on verbal encouragement similar to guidance school nutrition staff will receive.

To address Goal 3, fifth-grade helpers will make morning announcements promoting Friday Try-Days over the school intercom. Prior to each taste testing, the students also will create posters promoting the planned vegetable to decorate the cafeteria. During the taste tests fifth-graders will assist EFNEP staff and any guest nutrition educators in handing out samples to other students. They will gently encourage sampling and exploring the food with all their senses. Fifth-graders will be responsible for handing out “I Tried It” stickers to other students who participate, as well as recording students’ votes on vegetable preferences. Finally, with both student and parent permission, the fifth-grade student helpers will be featured in the ACS School Nutrition’s social media posts endorsing the program, which will include “I love [vegetable] because ______” signs on taste days and pictures of students trying the foods.

To address Goal 3, TASTE will:
- Recruit fifth-grade students to design posters, assist with taste tests, and promote the TASTE program within the school and on social media
Project Description: Goal 4
Describe how you will integrate feedback from students about their favorite fruits, vegetables, and recipes into the menu.
Character Limit: 5000

*TASTE*’s overarching goal is to introduce students to unfamiliar vegetables (or vegetables cooked in unfamiliar ways) and to get them excited about trying new foods and eating fresh vegetables. To address Goal 4, we will employ a voting system on Friday Try-Days; this will allow us to gain insight into students’ favorite vegetables or recipes. Students can vote with either “Loved it,” “Liked it,” or “Pass.” *TASTE* is intentionally utilizing vegetables that can be consumed both raw and in recipes. This allows us to sample twelve different options for new menu items, even though we will only conduct six taste days using six vegetables. After the completion of the grant implementation, all votes will be tallied to see which received the most votes. Based on the most highly ranked sample items, a minimum of three new recipes or raw vegetables will be added to ACS’s three-week cycle menu.

To address Goal 4, *TASTE* will:
- Allow students to vote on vegetables and recipes sampled
- Incorporate a minimum of three new recipes or vegetables into the cycle menu

*TASTE* in Summary

ACS School Nutrition believes that with the initial funding from the Project Produce grant, lessons learned at Hall Fletcher Elementary School about taste tests, nutrition education in the cafeteria, and new recipe development can be scaled up to the rest of the school district. With the partnerships that we have established with FEAST, ASAP, and EFNEP, *TASTE* has the potential for long-term success beyond the initial grant period. This will allow us to bring fresh vegetables and recipes to all of Asheville City Schools, and continue to help students discover new and exciting ways to enjoy vegetables for a lifetime of healthy eating.
Timeline
Selected schools will receive their grant funds in summer 2019. Grant activities must be implemented in August, September, October, and November 2019. All grant funds must be spent by December 2019. Can you accomplish your proposed project during this timeframe?

With funding from the Project Produce grant, Asheville City Schools will have the necessary resources to successfully implement TASTE with the help of our established partners. Please see below for a detailed timeline to accomplish the project goals described above.

- **Prior to August**
  - Meeting with fifth-grade teachers to discuss how to incorporate help from the students
  - Selection of farmers to work with
  - Info sent to PTO with request for help promoting TASTE to parents and staff
- **August**
  - In-service with lunchroom staff about helpful language, overview of program
  - Finalization of curricula
  - First week of school:
    - HFE PTO mentions Project Produce/taste testing during first meeting of school year.
    - Social media teaser posts
    - Newsletter sent to parents announcing upcoming project
  - Second week of school:
    - Meeting with fifth-graders interested in being helpers
- **September**
  - 9/13
    - Taste test
      - Raw cucumbers
      - Cucumber, tomato, onion salad
      - Farmer visit
      - Newsletter home
      - Social media posts
  - 9/27
    - Taste Test
      - Raw snap beans
      - Fasolakia
      - Person from Greece/of Greek heritage
    - Newsletter home
    - Social media posts
• October
  o 10/11
    ▪ Taste test
      • Raw mushrooms
      • TBD recipe based upon input from Eastern Band of Cherokee Indians
      • Person from Eastern Band of Cherokee Indians
    ▪ Newsletter home
    ▪ Social media posts
  o 10/25
    ▪ Taste test
      • Raw cabbage
      • Fried Cabbage (Indian)
      • Person from India/of Indian descent
    ▪ Newsletter home
    ▪ Social media posts

• November
  o 11/8
    ▪ Taste test
      • Raw kale
      • Kale sautéed with caramelized onions
      • Farmer visit
    ▪ Newsletter home
    ▪ Social media posts
  o 11/22
    ▪ Taste test
      • Raw beets
      • Beet and potato salad
      • Person from Ethiopia/of Ethiopian descent
    ▪ Newsletter home
    ▪ Social media posts

• December
  o Meeting with lunchroom staff, fifth-graders, food literacy/education component leaders, FEAST, ASAP to discuss what went well vs. areas to improve
  o Program evaluation
  o Tally votes for favorite vegetables/recipes → adjust cycle menu
Project Budget
Please see attached worksheet for line item budget

Additional Budget Information
Budget Justification

There are approximately 310 students currently enrolled at Hall Fletcher Elementary School. We have budgeted for 300 4 oz samples of both raw produce and the featured recipes to be made available for 300 students on each Friday Try-Day. See below for a description of planned purchases.

A. Produce
   a. When possible, TASTE will source produce from local farms identified through ASAP. North Carolina state policy dictates that produce purchased with School Nutrition funds must come from a Good Agricultural Practices (GAP)-certified farm, which makes sourcing locally more difficult. However, ACS School Nutrition is committed to supporting local agriculture. A minimum of two featured vegetables (cucumbers and kale, indicated by an ‘L’ in the budget spreadsheet) will be sourced locally, and others will be added as available.
      i. 124 lbs of cucumbers at $1.00/lb and 136 lbs of kale at $2.00/lb = $396
   b. Carolina Produce, ACS’s established produce distributor, will provide the other featured vegetables and miscellaneous produce needed for recipes (indicated by parenthesis in budget spreadsheet).
      i. 156 lbs snap beans ($1.28/lb) + 138 lbs mushrooms ($2.40/lb) + 130 lbs cabbage ($0.24/lb) + 136 lbs beets ($2.31/lb) + 44 lbs Yukon Gold potatoes ($2.72/lb) + 14 lbs yellow onions ($0.43/lb) + 10 lbs red onions ($1.18/lb) + 4 lbs lemons ($0.21/lemon) + 4 lbs parsley ($0.88/bunch) + 56 lbs tomatoes ($0.42/lb) + 2 lbs jalapenos ($1.28) = $1090.64

   Estimated total for all produce = $1486.64

B. Other ingredients
   a. In order to provide recipes with exciting flavors from around the world, TASTE will utilize several non-produce items. Many of these items can be purchased through ACS’s normal provider as established by the North Carolina Procurement Alliance (NCPA) for Child Nutrition. Items not available through the NCPA, such as specialty seasonings, will be purchased at local grocery stores as needed.
      i. Fourteen #10 size canned tomatoes ($3.25/can) + 2 gallons olive oil ($0.16/oz) + specialty seasonings (varies, estimated total not to exceed $60) + 1 lb ginger root ($2.88/lb) + 19 lbs frozen peas ($0.05/oz) + 8 lbs salt ($1.27/4 lbs) + 5 lb pepper ($25.95/each) = $193.00
Estimated total for all other ingredients = $193.00

C. Supplies
a. As part of the peer-marketing campaign, fifth-grade students will be designing posters to decorate the cafeteria. Grant funds will be used to purchase blank poster board. Food literacy activities will include vegetable fact sheets made available during taste tests. Fact sheets will be printed three to a page to conserve printing costs. Although there will be a maximum of only 110 recipes and fact sheets available in person during taste tests, these will also be sent to every parent electronically through ACS’s electronic flyer system.
   i. 3 packs of ten 22” x 28” blank posters ($4.99/pack) = $14.97
   ii. 330 color copies ($0.55/page) = $181.50

Estimated total for all supplies = $196.47
Works Cited