

Memorandum

Date: April 27, 2012

To: Julie Wise, OMB Desk Officer, Food and Nutrition Service

Through: Rachelle Ragland Green, Food and Nutrition Service, Information Clearance Officer; Ruth Brown OCIO Desk Officer

From: Alicia White, Senior Nutritionist, Child Nutrition Division
USDA – Food and Nutrition Service

Re: Under Approved Generic OMB Clearance No. 0584-0524
Request Approval to Perform Formative Research for Fifth- and Sixth-grade Garden-Based Nutrition Education Curriculum-Phase 2

The Food and Nutrition Service (FNS) of the USDA Food, Nutrition and Consumer Services is requesting approval for research under Approved Generic OMB Clearance No. 0584-0524.

This request is to acquire clearance for the formative testing of a garden-related nutrition education curriculum for fifth- and sixth-grades. This research represents phase 2 of a formative research plan that is informing the development of the 5th and 6th grade curriculum. Initial message development and testing for this curriculum was approved on December 27, 2011, under “Formative Research for 5th and 6th Grade- Garden Based Nutrition Curriculum and Communication Tool Development” under OMB Number 0584-0524 (ICF Ref 201 008-0584-001). The proposed formative research requested in this memo pertains to research designed to gather feedback on the draft garden curriculum implementation.

The following information is provided for your review:

1. **Title of the Project:** Formative Research for Fifth- and Sixth-grade Garden-Based Nutrition Education Curriculum-Phase 2
2. **Control Number:** 0584-0524
3. **Public Affected by this Project:** Individuals/Households, and State/Local Employees
 - Fifth- and sixth-grade students in classrooms of schools that participate in the National School Lunch Program (NSLP).
 - One-third of students will reside in a household whose income falls at or below 185% of the Federal poverty line as approximated by eligibility for reduced or free lunch under the National School Lunch Program.
 - Parents/caregivers of fifth- and sixth-grade students in schools that participate in the NSLP.
 - Participating parents/caregivers will be the guardians/caregivers of the children in the participating classrooms.
 - One-third of parents/caregivers will reside in a household whose income falls at or below 185% of the Federal poverty line as approximated by children’s eligibility for reduced or free lunch under the National School Lunch Program (NSLP).

- Fifth- and sixth-grade teachers who are employed by schools participating in the NSLP.
- Food service staff employed by schools participating in the NSLP.

See section 7, *Project Purpose, Methodology & Research Design* for a complete description of the frequency and type of activities for each audience and the recruitment of participants. The research will be conducted only with English-speaking audiences. Materials are designed to support school course content in the English Language Arts as well as Math, Science and Health. FNS plans to investigate opportunities to translate materials for Spanish-speaking parents/caregivers once development is completed.

4. Number of Respondents:

The estimated number of participants is 433: 9 principals; 18 teachers in participating schools; 200 fifth- and sixth-grade students; 200 parents/caregivers of participating fifth- and sixth-grade students; and 6 food service employees. All recruitment will take place at the classroom level, with teachers distributing information and parent/caregiver consents to children to take home to their parents/caregivers.

Number of Respondents

Target audience	Total number of participants	Proportion of Responders	Proportion of Non-Responders
Principals	9	33% (3)	66% (6)
Classroom Teachers	18	33% (6)	67% (12)
5 rd -6 th grade Students	200	85% (170)	15% (30)
Parents/Caregivers	200	85% (170)*	15% (30)
		20% (40)^	80% (160)
Food Service Staff	6	50% (3)	50% (3)
Total	433	352	81

*Reflects percentage completing parental consent form for their child to participate.

^Reflects percentage completing parental consent form for their own participation.

5. Time needed per response:

Recruitment

In the tables below, the time noted is an average response time for each member of the target audience. Principal involvement includes identifying and inviting eligible teachers/classrooms, giving direction to teachers to assist in distributing and collecting parent/caregiver forms, identifying and inviting eligible food service staff, and shipping completed forms to the evaluation contractor. Teacher involvement includes completing teacher consent forms; distributing invitation letters, screeners, and consent forms to students in his/her 5th or 6th grade class; collecting completed forms; and returning completed forms to the principal. Food service staff involvement includes completing and returning invitation letters, screeners and consent forms. Parent involvement includes completing invitation letters, screeners and and consents forms. Student involvement includes receiving parent/caregiver invitation

letter and forms from the teacher, taking those documents home to parents/caregivers, and returning forms (if completed) to the teacher.

Time Needed per Initial Teacher Recruitment & Consent

Target Audience	Time (mins)	Time (hours)
Principals (responders, N=3)	30	.50
Principals (non-responders, N=6)	2	.03
Teachers (responders, N=6)	10	.17
Teachers (non-responders, N=12)	2	.03

Time Needed per Initial Food Service Staff/Teacher Aide Recruitment & Consent

Target Audience	Time (mins)	Time (hours)
Principals (N=3)	15	.25
Food Service Staff (responders, N=3)	10	.17
Food Service Staff (non-responders, N=3)	2	.03

Time Needed per Initial Parents/Caregivers Screener & Consent Form

Target Audience	Time (mins)	Time (hours)
Principals (N=3)	10	.17
Teachers (N=6)	15	.25
Students (responders, N=170)	8	.13
Students (non-responders, N=30)	2	.03
Parents/Caregivers Consent for Child Participation (responders, N=170)	8	.13
Parents/Caregivers Consent for Caregiver Participation (responders, N=40)	7	.12
Parents/Caregivers (non-responders, N=30)	2	.03

Research Activities

In the table below, the time noted is an average response time for each member of the target audience for the research activities in which they will participate. Teacher participation includes completing weekly educator journals, facilitating the student pre- and post-surveys, completing a brief survey after completing the curriculum and participating in an in-depth phone interview. Food service staff participation includes completing a brief survey after completing the curriculum and participating in an in-depth phone interview. Parent participation includes an in-depth phone interview. Student participation includes the completion of a survey both before and after the curriculum is administered.

*Time Needed per Research Activity**

Target Participants	Research Activity	Time (mins)	Time (hours)
Students (N=170)	Pre-test Survey	15	.25
	Post-test Survey	20	.33
Teachers (N=6)	Teacher Post-test Survey	15	.25
	Facilitating Students Surveys	30	.50
	Educator Journal	90	1.5
	Phone Interview	30	.50
Food Service Staff (N=3)	Post-test Survey	15	.25
	Phone Interview	30	.50
Parents (N=18)	Phone Interview	20	.33

*Only completed by respondents.

6. Total burden hours on public:

(a) Affected Public	Respondent Type	(b) Survey Instruments	(c) No. Respondents	(d) Frequency of Response	(e) Est. Total Annual Responses per Respondent (c x d)	(f) Hours per Response	(g) Total Burden Hours (e x f)	
Reporting Burden	Formative Research	April - June 2012						
State, Local/Tribal Employees	Principals (non-responders)	Recruitment and Distribution of Teacher Letter and Consent Forms	6.00	1.00	6.00	0.03	0.18	
	Principals (responders)	Recruitment and Distribution of Teacher Letter and Consent Forms	3.00	1.00	3.00	0.50	1.50	
		Recruitment and Distribution of Food Service Staff Letter and Consent Forms	3.00	1.00	3.00	0.25	0.75	
		Distribution of Parent Letter, Forms to Classroom Teachers, Return Completed Forms to Evaluator	3.00	1.00	3.00	0.17	0.51	
	Principal Subtotal			9.00	-	9.00	-	2.94
	Teachers (non-responders)	Response & Consent Forms	12.00	1.00	12.00	0.03	0.36	
	Teachers (responders)	Response & Consent Forms	6.00	1.00	6.00	0.17	1.02	
		Distribution of Parent Letter, Forms to Students, Collect Complete Forms, Return to Principal	6.00	1.00	6.00	0.25	1.50	
		Educator Journal	6.00	1.00	6.00	1.50	9.00	
		Facilitating Student Surveys	6.00	1.00	6.00	0.50	3.00	
		Post-test Survey	6.00	1.00	6.00	0.25	1.50	
	Phone Interview	6.00	1.00	6.00	0.50	3.00		
	Teacher Subtotal			18.00	-	18.00	-	19.38
	Food Service Staff (non-responders)	Response and Consent Forms	3.00	1.00	3.00	0.03	0.09	
	Food Service Staff	Response and Consent Forms	3.00	1.00	3.00	0.17	0.51	

	(responders)	Post-test Survey	3.00	1.00	3.00	0.25	0.75
		Phone Interview	3.00	1.00	3.00	0.50	1.50
	Food Service Staff Subtotal		6.00	-	6.00	-	2.85
Individuals & Households	Parent/ Caregivers (non-responders)	Response & Consent Forms	30.00	1.00	30.00	0.03	0.90
	Parent/ Caregivers (responders)	Response & Consent Forms for Child Participation	170.00	1.00	170.00	0.13	22.10
		Response & Consent Forms for Caregiver Participation	40.00	1.00	40.00	0.12	4.80
		Phone Interview	18.00	1.00	18.00	0.33	5.94
	Parent/Caregiver Subtotal		200.00	-	200.00	-	33.74
	Students (non-responders)	Consent Forms	30.00	1.00	30.00	0.03	0.90
	Students (responders)	Consent Forms	170.00	1.00	170.00	0.13	22.10
		Pre-test Survey	170.00	1.00	170.00	0.25	42.50
		Post-test Survey	170.00	1.00	170.00	0.33	56.10
	Student Subtotal		200.00	-	200.00	-	121.60
Total			433.00	-	-	-	180.51

7. Project purpose, methodology, and formative research design:

Background

As authorized under Section 6(a)(3) of the Richard B. Russell National School Lunch Act, 42 USC 1755(a)(3), the Department of Agriculture's Food and Nutrition Service (FNS) provides training and technical assistance for school foodservice, nutrition education for children and their caregivers, and encourages school and community support for healthy eating and physical activity. These activities are implemented under the Agency's Team Nutrition initiative that is designed to improve children's lifelong eating and physical activity habits by using the principles of the *Dietary Guidelines for Americans*.

Under the Team Nutrition initiative, FNS is developing garden-related nutrition education lessons that promote fruit and vegetable consumption while meeting education standards for academic course content for grades five and six. These lesson plans will fill a need for a national nutrition education curriculum that connects and reinforces farm-to-school, school garden, and school meal initiatives.

Purpose

The purpose of the proposed formative research is to obtain information from students in the fifth and sixth grades, their teachers, parents/caregivers and food service employees from participating schools about the garden curriculum

implementation. Feedback will include ease-of-use, clarity, lesson quality, feasibility, and perceived student receptiveness. We will use this information to revise and improve the curriculum during the developmental process.

Methodology/Research Design

The formative research will be conducted using a portfolio model design, comprising four methodologies: observations of classrooms; surveys administered to students, teachers and food service staff; educator journals; and in-depth phone interviews with teachers, food service staff and parents/caregivers. Three schools from geographically diverse areas of the country with pre-existing school gardens will be chosen to participate. Within each school, one 5th and one 6th grade classroom will be selected for participation, for a total of six participating classrooms.

Classroom Observations – Observations will be implemented and managed in all classrooms by a senior research professional (FNS contactor). Observations will be multi-faceted, and encompass process measures such as lesson duration, frequency, and repetition, levels of student and teacher engagement, and lesson time of day. Classroom observations are not included in Sections 5 and 6 above as there is no burden of time on the public. Classrooms observations will be distributed as follows:

Urban Location Garden School 1	Suburban Location Garden School 2	Rural Location Garden School 3
3 observations of 5 th grade classroom	3 observations of 5 th grade classroom	3 observations of 5 th grade classroom
3 observations of 6 th grade classroom	3 observations of 6 th grade classroom	3 observations of 6 th grade classroom

Educator Journals – Educator journals will be completed by participating teachers during the course of the curriculum implementation period. Journals will include personal reflections about the curriculum and related lessons. Teachers will complete one entry per lesson.

Teacher Surveys – All teachers will complete a survey at the end of the curriculum implementation period. The survey will include reflections about the curriculum, students’ responsiveness to the material, and parents’ use of the wikis and blogs.

Teacher Interviews – In-depth phone interviews will be conducted with all participating teachers after they complete the survey at the conclusion of the curriculum implementation period. The interview will provide an opportunity to talk at length about the curriculum materials, level of support from the other school staff, ease-of-use and student perception of the curriculum.

Food Service Staff Surveys – All participating food service staff will complete a survey at the end of the curriculum implementation period. The survey will include reflections about the cafeteria connections made during the curriculum period.

Student Surveys – Participating fifth and sixth grade students will complete a survey questionnaire both prior to the curriculum's implementation and at the conclusion of its curriculum implementation period. The survey will assess student knowledge, attitudes and behaviors related to fruit and vegetable consumption as well as gather feedback regarding student perceptions of the activities.

The following chart provides an overview of all research activities:

Target Audience	Pre Implementation	During Implementation	Post Implementation
Students	Pretest Survey	Classroom Observation ¹	Posttest Survey
Teachers		Classroom Observation	Posttest Survey Posttest Interview
Parents			Posttest Interview
Food Service Staff			Posttest Survey Posttest Interview

Design/Sampling Procedures

The sample will include four audiences, as described above: 5th – 6th grade students their teachers, food service staff at participating schools, and parent's of participating 5th – 6th grade students, utilizing purposive and convenience sampling procedures. In order to work with students/classrooms that are racially and ethnically diverse, and represent families of a broad range of household income levels, including segments of the target audience that are low income (as defined at <185% of Federal Poverty Guidelines), we will select schools that are recruit from diverse communities and participate in the NSLP.

The research will be conducted only with English-speaking audiences. Materials are designed to support school course content in the English Language Arts as well as Math, Science and Health. FNS plans to investigate opportunities to translate materials for Spanish-speaking parent/caregivers once development is completed.

Site Selection

Three elementary schools with existing school gardens that are willing to use the curriculum in one fifth and one sixth grade classroom during the Spring 2012 will be selected to participate. Each school will represent a different USDA FNS region of the country and have more than 33% of the school population eligible to receive free or reduced priced lunches under the National School Lunch Program.

Recruitment

With approval from the school site principal, three 5th grade teachers and three teachers of 6th grade students will be recruited at each of the three selected sites. From these three recruits, it is estimated that one teacher will consent to participate in research activities. Teachers will distribute packets (containing the letter of invitation, parent screener, and parents/caregivers consent form) to each of their students to take home to their parents/caregivers. This recruiting strategy will be used as schools cannot/do not release students' contact information because of privacy concerns addressed in the Family Educational Rights and Privacy Act (FERPA). The letter will include a description, purpose, length of participation time, amount of incentive, and other details about their child's participation in research activities. Parents/caregivers who are interested in and willing to allow their children to participate in the lessons and research activities at school will complete, sign and

¹ Classroom observations are not included in Section 7 above as there is no burden of time on the public.

return the parents/caregivers consent for child participation form. Parents/caregivers who are interested in and willing to participate in phone interviews will return the parents/caregivers consent form. After the due date for returning the forms, teachers will return all completed forms to the principal, who will ship the forms to the evaluator. All students in participating classrooms will be eligible for participation if they provide consent. The evaluation firm will use the parent/caregiver screeners to select a diverse group of parent/caregivers to participate in in-depth phone interviews.

Compensation

Teacher participants will be given \$125 for their time spent on the project outside of normal school hours. Parents/Caregivers and food service staff will be given \$20 each for their participation as a token of appreciation. The selection of these amounts comes from past experience of the evaluators in the recruitment of teachers and parents. Each school site will receive an honorarium in the form of a gift to the school worth no more than \$500 for their efforts in supporting the research activities.

Consent

Consent forms for teachers and food service staff will be collected at the outset of the study, prior to the student and parent/caregiver recruitment process. Consent forms for parents/caregivers and their children will be obtained in the recruitment process. These forms will be modeled on the forms previously approved by OMB under FNS Core Nutrition Messages Concept, Testing ICR Reference No.: 200809-0584-003 (OMB control number: 0584-02-524).

Data Analysis

Using a variety of multivariate techniques, an FNS contractor will conduct statistical analyses of the survey data. Additionally, interviews and educator journals will be reviewed for recurring patterns across multiple respondents and used to assess the ease-of-use and implementation of the curriculum. Data will be considered descriptive and directional, but not definitive. No attempt will be made to generalize findings as nationally representative.

Outcome

Information and input gathered from the specific target audiences through the research will help us to understand if the developed curriculum is easily integrated into the classroom, engaging for students, and has the intended impact on children's preference for and knowledge of fruits and vegetables. FNS may decide to publish summary findings of the formative research either electronically or in print, but such documents will not include information that personally identifies participants.

8. Confidentiality

Using the *Consent Forms* (Attachments A-C), participants will be informed of confidentiality and privacy act provisions before responding to the screener. System of Record FNS-8, FNS Studies and Reports, published in the Federal Register on 4/25/1991 at 56 FR 19078, covers personal information collected under this study and identifies safeguards for the information collected.

9. Federal Costs: \$89,563.

10. Research Tools/Instruments:

- Attachment A – Teacher Letter, Teacher Survey for Participation, Teacher Informed Consent Form
- Attachment B – Parent/Caregiver Letter, Parent/Caregiver Survey for Participation, Parent/Caregiver Informed Consent Form, Parent/Caregiver Informed Consent Form for Student
- Attachment C – Food Service Staff Letter, Food Service Staff Informed Consent Form
- Attachment D – Student Pre-Survey
- Attachment D2 – Student Post-Survey
- Attachment E – Educator Journal
- Attachment F – Teacher Post-Survey
- Attachment G – Teacher In-Depth Telephone Interview Guide
- Attachment H – Parent In-Depth Telephone Interview Guide
- Attachment I – Food Service Staff Post-Survey
- Attachment J – Food Service Staff In-Depth Telephone Interview Guide
- Attachment K – Classroom Observation Form