# Tool: Knowledge, Attitudes, and Consumption Behavior Survey

Thank you for your interest in administering the Knowledge, Attitudes, and Consumption Behavior ("KA") Survey to your students. It is an 83-item survey designed to assess six areas (attitudes, knowledge, perception/self-efficacy, exposure, liking, and willingness) that part of the typical paradigm used in many nutrition education to improve people's dietary habits: increase knowledge about, to improve attitudes toward, healthy eating habits. A final section, the fruit/vegetable screener, is a very cursory look at children's dietary habits, specific to fruit and vegetable consumption. The KA survey can be conducted as a pre/post to evaluate potential changes in any of the areas assessed.

The KA survey is easy to administer. Students should complete the survey at the beginning of the farm to school program (ideally, before any programming happens; alternatively, as early in the school year as possible), and again at the end of the planned program activities (for example, at the end of a defined unit of nutrition education lessons, or at the end of the school year). The information below provides background information on this evaluation tool, including a description of where the tool comes from, a history of its development, and suggestions for administering the survey.

#### **About This Tool**

The Wisconsin Farm to School Evaluation (beginning fall 2010) began using a student survey to assess factors believed to predict or influence fruit and vegetable consumption:

- Attitudes toward eating fruits and vegetables: fruit/vegetable neophobia, or fear of trying new fruits/vegetables (in various settings, with different/unknown names, if it looks strange, etc.)
- Knowledge about nutrition and agricultural concepts
- Perception/Self-efficacy for making healthy eating choices
- Exposure to a series of specific fruit and vegetable items
- Liking of the specific fruits and vegetables students have tasted (as reported in Exposure)
- Willingness to try the specific fruits and vegetables (i.e., if they hadn't previously tried it, or if they had tried it and not liked it).
- Fruit and Vegetable Screener a brief series of questions about what fruit/vegetable items (grouped) students remember eating in the past day, and how much of each.

Scoring procedures are included at the end of this document, following the survey pages, and are generally sums within respective sections. Even in the first survey administration, students' average construct scores were high. Because of this, the Wisconsin F2S Evaluation Team added additional questions to the Knowledge and to the Exposure/Liking/Willingness sections to improve the survey's ability to assess change over time.

## **History of This Tool**

The original version comprised a fruit/vegetable neophobia scale<sup>1</sup> which was adapted for use with the University of North Carolina-Chapel Hill Farm to School Evaluation from a validated food neophobia scale<sup>2</sup>; questions from the Wisconsin Fresh Fruit & Vegetable Program evaluation (based on previously validated measures)<sup>3</sup>; and questions from the AmeriCorps Farm to School survey (not

published). The surveys were combined and limited to 60 items. As mentioned above, initial survey construct scores were high, indicating a ceiling effect, so the Evaluation Team pilot-tested additional questions (Knowledge; Exposure/Liking/Willingness) with a small cohort in May 2012. The final group of added questions included (a) two knowledge questions, where most students did not know the answer and where the concepts were easy to include in F2S curricula, (b) two additional fruits, and (c) two additional vegetables. For the added fruit and vegetable items, the Evaluation Team selected items that had potential to be grown locally *and* where 55% or fewer of students had tasted the item. Additionally, we decided to ask *all* students for the Willingness construct if they would be willing to try FV items again so that we could capture whether students who previously tasted and disliked an item would be willing to taste again. Finally, in the revised version, we added FV screener questions that originated in the *Got Dirt?* curriculum evaluation<sup>4</sup>. The FV screener questions were included with the purpose of replacing an additional Food Frequency Questionnaire tool (used only in the 2010-2011 evaluation year), as well as to enhance the Perception/Self-Efficacy construct. The final KA survey is an 83-item survey, which students have completed in a median time of approximately 30 minutes.

# **KA Survey Administration**

This tool can be administered in four ways:

KA Survey Administration Option	Attitudes	Knowledge	Perception/ Self-efficacy	Exposure	Liking	Willingness	Fruit/ Vegetable Screener
Questions	1-20	22-37, 40	37-38; pg 12	41-66 (a)	41-66 (b)	41-66 (c)	page 11
Complete survey	Х	Х	Х	Х	Х	Х	Х
Attitudes	Х						
Knowledge		Х					
FV screener							Х

The complete survey, designed for upper-elementary students, has historically taken students approximately 30 minutes to complete when administered via an online platform. The survey has been administered on paper to a limited degree; average time for completion is not available.

The survey, or portions thereof, should be administered during class time with an adult available to assist students as needed. This survey can assess change in the construct sections (see table, above) across the course of F2S program implementation. Ideally, administer it at the start and end of the school year to evaluate the program's effectiveness in improving scores in the above constructs.

Please also refer to the **KA Survey Scoring Procedure**, which follow the survey in this tool.

A script has been used to introduce this survey in previous evaluations:

"This survey asks what you think about food. The first part of this survey asks what you think about fruits and vegetables, and if you are willing to try new ones. The second part asks questions about where food comes from and how we eat. The third part of the survey asks whether you have ever tried specific fruits and vegetables. The last part of the survey asks if, and how much, you have eaten different types of foods. This survey should take about 30 minutes. If you have questions, ask [whoever is administering the survey]."

# Wisconsin Farm to School Student Survey

Welcome to the Wisconsin Farm to School Student Survey. We want to hear what you think about fruits and vegetables - thank you for helping us!

<u>This is not a test and it will not affect your grades</u>. Please answer every question, telling us what you really think. If you have questions you may ask your teacher or the adult in charge during this survey.

Stud	ent Ev	valua	tion I	D:				
Toda	y's da	ate:	mont			year		
I am	a:		□в	оу		□G	iirl	
I am	in:		□ 3 <sup>r</sup>	<sup>d</sup> grad	de	□ 4	th grade	☐ 5th grade
Wha	t ethr	nic gr	oup d	lo yoı	u belo	ong to	o?	
	□ Af	fricar	n-Ame	erican	ı			
	□ A:	sian-	Amer	ican				
	□ Ca	aucas	ian					
	□ ні	ispan	ic					
	□ N	ative	Ame	rican	/Ame	rican	Indian	
	□ o	ther	– plea	se de	escrib	e:		
Whe	n is y	our b	irthd	ay?				
	Mont	th:				_	Day:	
	Year	(that	you v	were	born	):		<u> </u>

	Please tell how you feel about fruit.	a lot	a little	not very much	not at all
1	How much do you like <b>fruit</b> ?				
2	When you try a new fruit for the first time, how much do you usually like it?				
3	How much do you like tasting new <b>fruits</b> ?				
	Please tell how you feel about tasting new fruit.	definitely	/ probably	probably not	definitely not
4	Will you taste a <b>fruit</b> if you don't know what it is?				
5	Will you taste a <b>fruit</b> if it looks strange?				
6	Will you taste a <b>fruit</b> if you have never tasted it before?				
7	When you are at a <b>friend's house</b> , will you try a new <b>fruit</b> ?				
8	When you are at <b>school</b> , will you try a new <b>fruit</b> ?				
9	When you are at home, will you try a new fruit?				
10	How many times have you tried a new <b>fruit</b> since school started this year?	er 1 time	2 times	3 times	at least 4 times

Pleas	se tell how you feel about vegetables.	a lot	a little	not very	not at all
<b>11</b> How	much do you like <b>vegetables</b> ?				
	n you try a new vegetable for the first time, how much do usually like it?				
•	much do you like tasting new <b>vegetables</b> ?				
Pleas	se tell how you feel about tasting new vegetables.	definitely	probably	probably not	definitely not
<b>14</b> Will	you taste a <b>vegetable</b> if you don't know what it is?				
<b>15</b> Will •	you taste a <b>vegetable</b> if it looks strange?				
<b>16</b> Will	you taste a <b>vegetable</b> if you have never tasted it before?				
	n you are at a <b>friend's house</b> , will you try a new				
Ū	table? n you are at school, will you try a new vegetable?				
<b>19</b> Whe	n you are at <b>home</b> , will you try a new <b>vegetable</b> ?				
	many times have you tried a new <b>vegetable</b> e school started this year?	1 time	2 times	3 times	at least 4 times
21. Ho	· · · · · · · · · · · · · · · · · · ·	_	_	3 times	times

24.	Where do eggs come from? Please check one.
	Cows
	] Goats
	] Chickens
	Something else
25.	What is a benefit of using compost?
	Compost feeds wild animals.
	Makes farmers use more chemical fertilizers.
	Compost keeps food out of landfills.
	None of the above.
26.	Oo insects play an important role in growing plants?
	] Yes
	] No
	] I don't know
27.	Oo TOMATOES grow in Wisconsin?
	] Yes
	] No
	] I don't know
28.	Oo ORANGES grow in Wisconsin?
	] Yes
	] No
	] I don't know
29.	Oo APPLES grow in Wisconsin?
	] Yes
	] No
	] I don't know
30.	Ooes SQUASH grow in Wisconsin?
	] Yes
	] No
	] I don't know
31.	Oo BANANAS grow in Wisconsin?
	] Yes
	] No
	] I don't know

32.		agine a meal with a hotdog in a bun and a glass of milk. What food group is missing? case check one.
		Dairy
		Fruits & Vegetables
		Meat
		Grains
33.	Wł	nat food group does the pear belong to? Please check one.
		Dairy
		Fruits & Vegetables
		Meat
		Grains
34.	_	uits and vegetables that are high in Vitamin A are in color.
		Red and white
		Blue and light brown
		Yellow-orange and dark green
		Brown and purple
		I don't know
35.		ny do I need to eat food?
		I need food for energy and to grow.
		I need food ONLY because it tastes good.
		I don't need food.
		I don't know
36.		ny do I need to eat different kinds of foods?
		I can get a lot of the <b>SAME</b> nutrients.
		I can get many <b>DIFFERENT</b> nutrients.
		I don't need to eat different kinds of food.
		I don't know.
37.	Не	althy eating is:
		eating fruits but <b>not</b> vegetables.
		<b>not</b> eating fruits or vegetables.
		eating <b>both</b> fruits <i>and</i> vegetables.
		I don't know.
38.	The	e foods that I eat for meals and snacks are healthy. (Choose one.)
		Yes, all of the time
		Yes, sometimes
		No

39	_		•	uit instead of candy? (Choose one	r.)
		Not I	<u>-</u>		
		Very	Likely		
40	. Wł	nich o	f these is the HEALTHIEST	Γ way to eat potatoes?	
		Pota	to salad		
		Fren	ch fries		
		Bake	d potato		
		I don	't know		
Fo	r the	rema	ining questions, please ans	wer all parts of each question.	
	41.	Have	you ever eaten an apple	?	
		Yes	Did you like it? ☐ yes	□ no	
		No	Would you try one?		
			□ yes		Walls and the second
			□ no		
			□ maybe		1000
_	42.	Have	you ever eaten an orang	ge?	
		Yes	Did you like it? ☐ yes	□ no	- of section 4
		No	Would you try one?		
			□ yes		
			□ no		
_			□ maybe		
	43.	Have	you ever eaten a mango	?	
		Yes	Did you like it? ☐ yes	□ no	
			Would you try one?		
			□ yes		
			□ no		
			□ maybe		
_	44.	Have	you ever eaten waterme	elon?	- Trees
					The same of the sa
		Yes	Did you like it? ☐ yes	□ no	Million mater
		No	Would you try one?		
			□ yes		
			□ no		
			□ mavbe		

73.	Have	you ever eaten a pear?		4
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no	□ no	
		□ maybe		
46.	Have	you ever eaten a kiwi?	_	
		,		
	Yes	Did you like it? ☐ yes	□ no	while will
	No	Would you try one?		Same Marie
		□ yes		THE STATE OF THE S
		□ no		
		☐ maybe		
47.	Have	you ever eaten a strawb	erry?	40/01
	<b>W</b>	D:d = 19 - 92 □		
	Yes	. , , ,	□ no	
	No	Would you try one?		
		□ yes □ no		
		□ maybe		
18	Have	you ever eaten a bluebe	rrv2	
40.	паче	you ever eaten a bluebe	11 y:	
П	Yes	Did you like it? ☐ yes	□no	
	No	Would you try one?		
		□ yes		
		no		
				The second second second
		☐ maybe		
49.	Have	☐ maybe you ever eaten cantalou	pe?	
49.	Have	you ever eaten cantalou	pe?	
49.	Have Yes		pe? □ no	
49.		you ever eaten cantalou  Did you like it?   yes  Would you try one?		
<b>49.</b>	Yes	you ever eaten cantalou  Did you like it? □ yes  Would you try one? □ yes		
49.	Yes	you ever eaten cantalou  Did you like it? □ yes  Would you try one? □ yes □ no		
49.	Yes	you ever eaten cantalou  Did you like it? □ yes  Would you try one? □ yes		
	Yes No	you ever eaten cantalou  Did you like it? □ yes  Would you try one? □ yes □ no	□ no	
	Yes No Have	you ever eaten cantalou  Did you like it? □ yes  Would you try one? □ yes □ no □ maybe  you ever eaten a grape?	□ no	
	Yes No Have	you ever eaten cantalou  Did you like it? ☐ yes  Would you try one? ☐ yes ☐ no ☐ maybe  you ever eaten a grape?  Did you like it? ☐ yes	□ no	
50.	Yes No Have	you ever eaten cantalou  Did you like it? □ yes  Would you try one? □ yes □ no □ maybe  you ever eaten a grape?  Did you like it? □ yes  Would you try one?	□ no	
50.	Yes No Have	you ever eaten cantalou  Did you like it? □ yes  Would you try one? □ yes □ no □ maybe  you ever eaten a grape?  Did you like it? □ yes  Would you try one? □ yes	□ no	
50.	Yes No Have	you ever eaten cantalou  Did you like it? □ yes  Would you try one? □ yes □ no □ maybe  you ever eaten a grape?  Did you like it? □ yes  Would you try one?	□ no	

51.	Have	you ever eaten papaya?		
	Yes No	Did you like it? ☐ yes Would you try it? ☐ yes ☐ no ☐ maybe	□ no	
52.	Have	you ever eaten a cranbe	ry?	
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	
53.	Have	you ever eaten asparagu	s?	
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	
54.	Have	you ever eaten broccoli?		
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	
55.	Have	you ever eaten beets?		
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	
56.	Have	you ever eaten a cucumb	er?	
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	

57.	Have	you ever eaten a green p	pepper?	
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	
58.	Have	you ever eaten a sweet p	ootato?	(F) This Trapp are and consider or displaced.
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	
59.	Have	you ever eaten peas?		
	Yes No	Did you like them? ☐ yo Would you try them? ☐ yes ☐ no ☐ maybe	es 🗆 no	ATTO S
60.	Have	you ever eaten eggplant?		- Mari
	Yes No	Did you like it? ☐ yes Would you try it? ☐ yes ☐ no ☐ maybe	□ no	
61.	Have	you ever eaten spinach?		4
	Yes No	Did you like it? ☐ yes Would you try it? ☐ yes ☐ no ☐ maybe	□ no	
62.	Have	you ever eaten green be	ans?	Also.
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	

63.	Have	you ever eaten avocado	?	
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□no	
64.	Have	you ever eaten a tomato	)?	
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	(F) to trap the second is the parties of the second in the
65.	Have	you ever eaten a carrot?		
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□no	
66.	Have	you ever eaten a radish?		
	Yes No	Did you like it? ☐ yes Would you try one? ☐ yes ☐ no ☐ maybe	□ no	The state of the s

Think about everything you ate or drank <u>yesterday</u>. Remember what you had for breakfast, lunch, dinner, after school, while watching TV, and at bedtime.

	•	at or drink it erday?	How much did you eat?			
67. Apples, bananas, or oranges	☐ Yes	□ No	□ ½	□ 1	□ 2	
68. Applesauce, fruit cocktail	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
69. Any other fruit, like strawberries, grapes	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
70. French fries, hash browns, tater tots	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
71. Other potatoes, like mashed or boiled	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
72. Ketchup or salsa	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
73. Lettuce salad	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
74. Tomatoes, including on salad	☐ Yes	□ No	□¼ tomato	□½ tomato	□1 tomato	
75. Green beans or peas	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
76. Other vegetables, like corn, carrots, greens, broccoli	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
77. Vegetable soup, tomato soup, any soup or stew with vegetables in it	□ Yes	□ No	☐ A little	☐ Some	☐ A lot	
78. Chili beans, pinto beans, black beans, including in burritos	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	
79. Refried beans	☐ Yes	□ No	☐ A little	☐ Some	☐ A lot	

# How sure are you that you can do the following: 80. Eat vegetables at dinner. ☐ I know I can ☐ I think I can ☐ I'm not sure I can ☐ I know I can't 81. Eat my favorite fruit instead of my usual desert with dinner. ☐ I know I can ☐ I think I can ☐ I'm not sure I can ☐ I know I can't 82. Eat a vegetable that's being served with my lunch at school. ☐ I know I can ☐ I think I can ☐ I'm not sure I can ☐ I know I can't 83. Eat a fruit that's being served with my lunch at school. ☐ I know I can

☐ I think I can

☐ I'm not sure I can☐ I know I can't

Thank you for taking the time to complete this survey!

# **Knowledge and Attitudes Survey Scoring Procedure**

Updated December 18, 2013

The scoring procedures described here apply to both pre- and post-test administration scoring. To evaluate pre/post change, calculate the difference in construct scores by subtracting the pre-test score from the post-test score (each section separately).

# **Scoring procedure**

Students' responses from the KA survey were categorized into different scores.

- 1) **Knowledge:** There are seventeen questions in this section. The questions focus on material typically covered in farm to school programs. Score the questions accordingly:
  - Correct responses = score 1
  - Incorrect answers = score 0 (including the response *I don't know*, when that is a response option)

Scores can range from 0 to maximum of 17. To determine a student's Knowledge score, add the sum of all questions in this section (Q22-37, Q40).

$$Knowledge = \sum (correct \ responses, Q22 - 37, Q40)$$

2) **Attitudes:** There are twenty questions in this section. Six questions (Q1-3, Q11-13) ask how much a student likes F/V and how much a student likes *new* F/V. Score the responses as:

a lot	a little	not very much	not at all
4	3	2	1

Twelve questions (Q4-9, Q14-19) ask students' willingness to try a F/V in a variety of situations. Score responses as:

definitely	probably	probably not	definitely not
4	3	2	1

Finally, two questions (Q10, Q20) ask how many times a student had tried a new F/V since the start of the school year. Score responses as:

Never	1 time	2 times	3 times	At least 4 times
1	2	3	4	5

Scores can range from 20 to a maximum of 82. To determine a student's Attitudes score, add the sum of all the questions in this section (Q1-20).

Attitudes = 
$$\sum$$
(scored responses,  $Q1 - 20$ )

3) **Perception/Self-efficacy:** There are six questions in this section. Two questions (Q38-39) ask students' perception of their own diets – whether the foods they eat are healthy. Score responses as:

Q38	Yes, all the time	Yes, sometimes	no
Q39	Very likely	Likely	Not likely
Score	2	1	0

Four additional questions (Q80-83) ask students to reflect on their ability to make healthy choices: eat vegetables at dinner; eat fruit instead of dessert at dinner; eat a vegetable being served at school lunch; and eat a fruit being served at school lunch. Score responses as:

I know I can	I think I can	I'm not sure I can	I know I can't
4	3	2	1

Scores can range from 4 to a maximum of 20. To determine a student's Perception/Self-Efficacy score, add the sum of all the questions in this section (Q38-39. Q80-83).

Perception/self efficacy = 
$$\sum$$
(scored responses, Q38 - 39, Q80 - 83)

4) **Exposure:** There are 26 questions in this section (Q41-66, parts a). Each question asks if a student has tried a particular fruit or vegetable. Each question includes a photograph to aid with food recognition. Score responses as:

Yes	No
1	0

Scores can range from 0 to a maximum of 26. To determine a student's Exposure score, add the sum of all the questions in this section (Q41-66, parts a)).

Exposure = 
$$\sum$$
(yes responses, Q41 - 66, parts a)

The student's response to the Exposure question branches to either a Liking (response yes) or Willingness (response no) follow-up question for each F/V.

5) **Liking:** (Q41-66, parts b) Where students answered "yes" to part a (above), students are asked whether they liked the fruit/vegetable item that they reported tasting. Score responses as:

Yes	No
1	0

To determine a student's Liking score, divide the sum of the responses for the questions in this section (Q41-66, parts b) by the student's Exposure score (= the total number of fruits/vegetables the student tried); finally, express it as a percentage by multiplying by 100. Scores can range from 0 to a maximum of 100.

$$Liking = \frac{\sum(yes \, reponses, Q41 - 66, parts \, b)}{Exposure \, score} x100$$

6) **Willingness:** See footnote for old scoring. New scoring (as of May 2013) involved asking all students whether they would try the 26 specific F/V (Q41-66, parts c).

Yes	Maybe	No
2	1	0

To determine a student's Willingness score, add the sum of all the questions in this section (Q41-66, parts c) and divide by 2. Scores can range from 0 to a maximum of 26.

Willingness = 
$$\frac{\sum (scored\ responses, Q41 - 66, parts\ c)}{2}$$

<sup>&</sup>lt;sup>1</sup> Old scoring: Among the previously not-tasted F/V, students were asked whether they would try it (*yes*, score=2, *maybe*, score=1, *no*, score=0). Additionally, for each F/V students reported trying and liking, they received a score of 2 (because it was assumed that they would try a F/V they had previously tried and liked). The collective sum of all responses was divided by two. Scores can range from 0 to 20.

7) **FV Screener:** There are 13 questions in this section (Q67-69). For a variety of groups of fruit or vegetable items, students are asked to report (a) whether they ate the item(s) in the past day, and (b) if so, how much (a relative amount). Score section (a) responses as:

Yes	No
1	0

Section (b) response scoring strategies are included within each subsection below. The Evaluation Team suggests scoring and assessing the information from this FV screener as follows:

- Calculate the percent of students who report having eating *any* food from the subsections (each separately). For example, 85% of students reported eating any fruit in pre-test, and 100% of students reported eating any fruit at post-test; or 25% of students reported eating any legumes in the pre-test, and 30% of students reported eating any legumes in the post-test.) *Compare the percent of students with a subsection total score greater than 0 to the percent of students with a subsection total score of exactly 0.*
- For each subsection, calculate the average relative amount students reported consuming and relate it back to the terms used for that subsection.

#### FV Screener Subsections:

- a. Fruit (Q67-69)
  - i. At fruit at all = score > 0, parts a
  - ii. Relative amount: Score responses as:

Response	"½"	"1"	"2"
Q67	0.5	1	2
Response	"A little"	"Some"	"A lot"
Q68-69	0.5	1	2

To determine a student's relative consumption of fruits, add the responses in this subsection and divide by 3.

- **b.** Potatoes (Q70-71):
  - i. At potatoes at all = score > 0, parts  $\alpha$
  - ii. Relative amount: Score responses as:

Response	"A little"	"Some"	"A lot"
Q70-71	1	2	3

To determine a student's relative consumption of fruits, add the responses in this subsection and divide by 2.

- c. Vegetables (non-potato; Q72-77):
  - i. At evegetables at all = score > 0, parts  $\alpha$
  - ii. Relative amount: Score responses as:

Response	"A little"	"Some"	"A lot"
Q72-73, 75-77	1	2	3
D	((1/ + + - ))	((1/ 1 1 - 1)	((4 ++-))
Response	"¼ tomato"	"½ tomato"	"1 tomato"

To determine a student's relative consumption of fruits, add the responses in this subsection and divide by 5.

## d. Legumes:

- i. At elegumes at all = score > 0, parts a
- ii. Relative amount: Score responses as:

Response	"A little"	"Some"	"A lot"
Q78-79	1	2	3

To determine a student's relative consumption of fruits, add the responses in this subsection and divide by 2.

#### References

- 1. Farm to School Evaluation Toolkit. University of North Carolina at Chapel Hill: Center for Health Promotion and Disease Prevention; 2010.
- 2. Pliner P, Hobden K. Development of a scale to measure the trait of food neophobia in humans. *Appetite*. 1992;19:105–120.
- 3. Jamelske E, Bika LA, McCarty DJ, Meinen AM. Preliminary Findings from an Evaluation of the USDA Fresh Fruit and Vegetable Program in Wisconsin Schools. *Wis. Med. J.* 2008;107(5):225–230.
- 4. Wisconsin Department of Health Services- Division of Public Health- NPAOP, Wisconsin Department of Public Instruction, University of Wisconsin Extension. Got Dirt? Garden Toolkit for implementing youth gardens. 2013.