

**Report
on
The Parent School Foodservice Survey**

By

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The University of Mississippi**

Building the Future Through Child Nutrition

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PREFACE

In lower elementary schools it may not be “what” influences participation in the National School Meals Program but “who” influences participation. Klausmeier and Ripple (1971) stated, “During the elementary school years, children’s attitudes generally are close approximations of the attitudes held by significant adults in their world, particularly their parents, family groups, and their teachers.” Meyer (1998) in the *Study to Determine Who Makes the decision to Participate in CNP’s in elementary Grades* identified the parent as the primary customer for lower elementary school foodservice and nutrition programs.

The National Food Service Management Institute (NFSMI) Applied Research Division (ARD), began an initiative in 1996 to develop student surveys to assess school foodservice programs. Following the development of the high school, middle/junior high school, and upper elementary school foodservice surveys, the development of a survey for lower elementary school was undertaken. The focus of this survey was on the parent as the primary customer. This report details the steps taken and results of the pilot study conducted in the development of the NFSMI Parent Foodservice Survey.

The questions used in this study were based on the research of Dr. Laurel Lambert while a graduate research assistant for the National Food Service Management Institute, Applied Research Division. The researchers at the Applied Research Division would like to thank her as well as the school foodservice directors/supervisors who were instrumental in the development and testing of this survey.

Denise Brown, PhD, RD
Director of Applied Research

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Executive Director

REPORT ON THE PARENT SCHOOL FOODSERVICE SURVEY

EXECUTIVE SUMMARY

Klausmeier and Ripple (1971) stated, “During the elementary school years, children’s attitudes generally are close approximations of the attitudes held by significant adults in their world, particularly their parents, family groups, and their teachers.” Meyer (1998) in the *Study to Determine Who Makes the decision to Participate in CNP’s in elementary Grades* identified the parent as the primary customer for lower elementary school foodservice and nutrition programs. Knowing the customers for lower elementary school foodservice and nutrition programs means knowing the parents’ wants and needs for the programs. As a result, a study was initiated by the National Food Service Management Institute (NFSMI) Applied Research Division (ARD), to develop a survey instrument to be used with parents of pre-kindergarten through second-grade students to assess their perceptions of the school foodservice and nutrition program. This survey is the fourth in a series designed to provide school foodservice and nutrition programs with tools to obtain a comprehensive view of customers’ perceptions.

Information gathered from research conducted by Dr. Laurel Lambert, a former NFSMI ARD graduate research assistant, for the completion of her dissertation, “The Relationship Between Parents’ Behavioral Intentions to Encourage Their Lower Elementary School-Aged Children to Participate in the National School Lunch Program and Their Children’s Actual Participation,” was used as the basis for development of the survey instrument. The instrument was pilot tested in five districts located in North Dakota, Tennessee, Ohio, Wisconsin, and Massachusetts. Surveys were sent home with pre-kindergarten through second-grade students with a letter from the foodservice director requesting parents to complete the survey and have their child return the survey to their teacher.

A total of 251 usable surveys was included in the analysis. The study included parents of 1 pre-kindergartner, 43 kindergartners, 85 first-graders, 116 second-graders, and 6 did not answer the question indicating grade. Factor analysis was used to develop the construct of the survey. Thirteen of the fourteen pilot questions loaded into the model and explained 59.9% of the variance. Stepwise multiple regression was used to determine the relationship among the dependent variable “Overall, my child likes the school meals,” and the independent variables, attributes of service (questions 2-14). The analysis created a two-variable model accounting for 70.2% of the variance. The two variables were: “My child likes the foods provided,” and “My child likes the taste of the food.” Convenience was the number one reason for students eating school breakfast and lunch.

INTRODUCTION

To be successful in the dynamic business environment of the 21st century, Whitley (1991) identifies as part of his seven imperatives, “know thy customers.” Meyer (1998) in the *Study to Determine Who Makes the decision to Participate in CNP’s in elementary Grades* identified the parent as the primary customer for lower elementary school foodservice and nutrition programs. Knowing the customers for lower elementary school foodservice programs means knowing the parents’ wants and needs for the programs.

In lower elementary schools it may not be “what” influences participation in the National School Meals Program but, “who” influences participation. Students whose parents have a positive attitude toward the school foodservice and nutrition program are more likely to participate (Robinson, 1978; Wellisch, Hanes, Jordan, Mauer, & Vermeersch, 1983). Klausmeier and Ripple (1971) stated, “During the elementary school years, children’s attitudes generally are the close approximations of the attitudes held by significant adults in their world, particularly their parents, family groups, and their teachers.”

Parents today often have a hectic family life. Many juggle more than one job to maintain financial stability. Others work, shuttle children from one place to another, and have little time to spend completing long surveys or attending focus group discussions. To gather information from the parent customer of school foodservice and nutrition programs, a concise, valid, and reliable instrument is essential. As a result, a study was initiated by the National Food Service Management Institute (NFSMI) Applied Research Division (ARD) to develop a survey instrument to be used with parents of pre-kindergarten through second-grade students to assess their perceptions of the school foodservice and nutrition programs.

METHOD

Information gathered from research conducted by Dr. Laurel Lambert, a former NFSMI ARD graduate research assistant, for the completion of her dissertation entitled, “The Relationship Between Parents’ Behavioral Intentions to Encourage Their Lower Elementary School-Aged Children to Participate in the National School Lunch Program and Their Children’s Actual Participation,” was used as the basis for development of the survey instrument. Ten of the fourteen questions about the school foodservice operation originated from her study. Additional questions were added based on research findings from the development of the NFSMI Upper Elementary School Meal Survey. A seven-point scale was used with 1 = strongly disagree and 7 = strongly agree and 8 = I do not know. Seven demographic questions composed the second section of the survey. The pilot survey is found in Appendix A.

Volunteers were solicited from the Internet list serve MEALTALK. Schools participating in the study represented rural, urban, and suburban populations. Participants were asked to coordinate the distribution of the surveys with the schools’ principals. The teachers were provided pencils as

an incentive for the children when the surveys were returned. Surveys were sent home with pre-kindergarten through second-grade students with a letter from the foodservice director requesting parents to complete the survey and have their child return the survey to their teacher. A letter sent by one of the participating directors is found in Appendix B. When the completed surveys were returned, the child was given a pencil.

A focus group was held with foodservice directors, managers, and one elementary school principal to finalize the recommended distribution process for the completed survey.

RESULTS

A total of 277 surveys was returned. If more than four questions and/or questions five and six were unanswered or answered with “I do not know,” the surveys were not included in the analysis. Analysis showed that including surveys with more than four “I do not know” answers skewed the curve away from the mean. It was felt that because the factor “Know My Child” was composed of only two questions, five and six, that when these two questions were not answered, the surveys should not be included in the analysis. Questions five and six were answered with “I do not know” on 9 surveys, and 17 surveys had more than four questions answered with “I do not know.” As a result, 251 usable surveys were included in the analysis. The study included parents of 1 pre-kindergartner, 43 kindergartners, 85 first-graders, 116 second-graders, and 6 did not answer the question on grade.

Means and standard deviations were calculated for questions asked on the survey. Table 1 shows means and standard deviations for the questions.

Table 1

Parent Survey Questions ± Standard Deviation

Question	N	Mean	Standard Deviation
Overall, my child likes the school meals.	248	5.35	1.57
My child receives a variety of foods.	248	5.29	1.61
My child receives healthful foods.	250	5.44	1.49
My child selects nutritious foods.	236	4.87	1.50
I know what my child eats.	249	5.55	1.65
I know how much my child eats.	233	4.88	1.86
My child likes the foods provided.	248	5.15	1.65
My child has enough time to eat.	243	4.58	2.03
My child eats in a pleasant dining area.	247	5.11	1.66
My child likes the taste of the foods.	247	5.34	1.47
I think the cost of the school meals is reasonable.	246	5.62	1.55
The foodservice staff are friendly to my child.	231	6.03	1.46
My child thinks the foods are presented attractively.	217	5.22	1.44
My child thinks the dining area is clean.	235	5.38	1.52

Factor analysis was used to develop the construct of the survey. Thirteen of the fourteen pilot questions loaded into the model. The only question that failed to load into the model was, "I think the cost of the school meals is reasonable." Table 2 shows the loading value for each factor. Table 3 shows the mean and standard deviation for each factor.

Table 2**Construct of the Parent Foodservice Survey**

Construct	Questions	Loading Value
Food Quality $\alpha = .843$	My child receives a variety of foods.	.801
	My child receives healthful foods.	.779
	My child selects nutritious foods.	.599
	My child likes the foods provided.	.809
	My child likes the taste of the foods.	.671
Environment $\alpha = .763$	My child has enough time to eat.	.572
	My child eats in a pleasant dining area.	.738
	The foodservice staff are friendly to my child.	.648
	My child thinks the foods are presented attractively.	.564
	My child thinks the dining area is clean.	.708
Know My Child $\alpha = .817$	I know what my child eats.	.874
	I know how much my child eats.	.851

Cumulative Variance = 59.88%

Table 3**Factor Mean and Standard Deviation**

Factor	Mean	Standard Deviation
Food Quality	5.23	1.2544
Environment	5.26	1.1715
Know My Child	5.27	1.6088

N=251

Multiple stepwise regression was used to determine the relationship among the dependent variable, "Overall, my child likes the school meals," and the independent variables, attributes of service (questions 2-14). The analysis created a two-variable model accounting for 70% of the variance. Table 4 shows complete results.

Table 4**Correlation of Variables**

Questions	Beta	t	Significance
My child likes the foods provided.	.688	14.285	.000*
My child likes the taste of the foods.	.214	4.14	.000*

* p<.001

Parents identified the number one reason students ate breakfast and lunch was that it was convenient. The second ranking answer for eating breakfast was that their friends ate breakfast. The second top answer for reasons their child ate school lunch was that they felt the school meal was better for them than a brown bag lunch.

Analysis of variance showed differences among the grades for only one question, “My child eats in a pleasant dining area,” (p<.005). As the children moved up in grades, the parents were less satisfied with the pleasantness of the dining area. An independent sample t-test showed a difference for only one question, “The foodservice staff are friendly to my child,” (p<.05) between parents with children in pre-kindergarten through second grade compared to parents with children in pre-kindergarten through second grade in addition to older children. The parents who had children only in pre-kindergarten through second grade were more satisfied with the friendliness of the staff.

During the focus group to finalize the distribution process, the group voiced a concern about the level of difficulty of the survey. They questioned if parents would be willing or able to complete the survey. As a result, a validity study was conducted with parents. The survey was revised to a 5-point scale to make it easier to complete. Both surveys (the 5-point version and 7-point version) were tested. Parents arriving to deliver children or pick up children from a local family education center where after-school care, music lessons, and other student and adult programs are held were asked to complete the survey, and then answer three questions about the survey. The questions asked are shown in Appendix C. No difference was shown in the level of difficulty between the 5-point and 7-point scale surveys. Parents stated the survey was easy to understand and that they were very likely to complete such a survey, if it was sent home with their child. The final survey is shown in Appendix D.

CONCLUSIONS

- The research study produced a valid and reliable School Foodservice Survey for parents of kindergarten through second grade. Because only one completed survey was received from a parent of a pre-kindergarten student, the researcher cannot state that this survey is valid and reliable for the pre-kindergarten population group.
- Two questions were found to be highly predictive of satisfaction, “My child likes the foods

provided” and “My child likes the taste of the foods.”

- Further research is needed to complete the development of customer food service surveys for teachers and administrators.

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APPENDIXES

APPENDIX A

Appendix A

Parent School Foodservice Survey

Please answer the following questions about your child's impression of eating meals provided by the school foodservice and nutrition program. On a scale of 1= Strongly Disagree to 7 = Strongly Agree.

	Strongly Disagree			Neither Agree nor Disagree			Strongly Agree	I do not know	
1. Overall, my child likes the school meals provided by the foodservice and nutrition program.	①	②	③	④	⑤	⑥	⑦	⑧	
2. My child receives a variety of foods.	①	②	③	④	⑤	⑥	⑦	⑧	
3. My child receives healthful foods.	①	②	③	④	⑤	⑥	⑦	⑧	
4. My child selects nutritious foods.	①	②	③	④	⑤	⑥	⑦	⑧	
5. I know what foods my child eats.	①	②	③	④	⑤	⑥	⑦	⑧	
6. I know how much my child eats.	①	②	③	④	⑤	⑥	⑦	⑧	
7. My child likes the foods provided.	①	②	③	④	⑤	⑥	⑦	⑧	
8. My child has enough time to eat.	①	②	③	④	⑤	⑥	⑦	⑧	
9. My child eats in a pleasant dining area.	①	②	③	④	⑤	⑥	⑦	⑧	
10. My child likes the taste of the food.	①	②	③	④	⑤	⑥	⑦	⑧	
11. I think the cost of the school meals is reasonable for what my child receives.	①	②	③	④	⑤	⑥	⑦	⑧	
12. The foodservice staff are friendly to my child.	①	②	③	④	⑤	⑥	⑦	⑧	
13. My child thinks the foods on the serving line are attractively presented.	①	②	③	④	⑤	⑥	⑦	⑧	
14. My child thinks the dining area is clean.	①	②	③	④	⑤	⑥	⑦	⑧	
15. How many times a week does your child eat school breakfast?					①	②	③	④	⑤
16. How many times a week does your child eat school lunch?					①	②	③	④	⑤
17. How many times a week does your child bring a lunch from home?					①	②	③	④	⑤

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APPENDIX B

Appendix B

Directors Letter to Parents

MCKENZIE SCHOOL NUTRITION SERVICES
Phone #: 901-352-5477 Fax #: 901-352-7550
Deborah L. Chapman, M.S., R.D., L.D.N.
114 West Bell Avenue
McKenzie, Tennessee 38201
chapmand@ten-nash.ten.k12.tn.us

October 24, 2000

Dear Parents,

McKenzie Elementary School has been selected to participate in a national study to develop a parent foodservice survey. This study will provide the foundation for the development of a national survey to be used by foodservice and nutrition programs to gather valuable information about pre-kindergarten through second-grade children's impressions of the school foodservice and nutrition programs. The research is being conducted by the Applied Research Division of the National Food Service Management Institute (NFSMI). NFSMI is a federally funded program with the mission of conducting research in child nutrition and providing training for school foodservice professionals.

The survey is short and will only take approximately 10 minutes to complete. This survey is strictly voluntary, but we would appreciate your involvement in this research. As an incentive, your child will receive a pencil when the survey is returned completed.

The school foodservice director will receive a complete report of the results of this survey. We welcome your comments and encourage you to complete the survey. The dead line for return is October 27, 2000.

Sincerely,



Deborah L. Chapman
Foodservice Director

APPENDIX C

Appendix C

Please help us evaluate a parent foodservice survey.

Answer the following questions about the attached survey.

Circle the number that best fits your answer.

How hard was the survey to complete?

1	2	3	4	5
Very easy	Easy	Neither Easy nor Hard	Hard	Very hard

The questions were easy to understand.

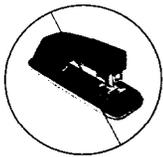
1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

If your child brought this survey home for you to complete and return, how likely would you be to complete it?

1	2	3	4	5
Very Likely	Likely	No Opinion	Not Likely	Would not Return

Thank you for assisting with this study

APPENDIX D



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Parent School Foodservice Survey

Please answer the following questions about your child's impression of eating meals provided by the school foodservice and nutrition program.

On a scale of 1= Strongly Disagree to 7 = Strongly Agree, fill in the circle of the number that best describes your answer.

	Strongly Disagree		Neither Agree nor Disagree			Strongly Agree		I do not know
	①	②	③	④	⑤	⑥	⑦	⑧
1. Overall, my child likes the school meals served by the foodservice and nutrition program.	①	②	③	④	⑤	⑥	⑦	⑧
2. My child receives a variety of foods.	①	②	③	④	⑤	⑥	⑦	⑧
3. My child receives healthful foods	①	②	③	④	⑤	⑥	⑦	⑧
4. I know what foods my child eats.	①	②	③	④	⑤	⑥	⑦	⑧
5. I know how much my child eats.	①	②	③	④	⑤	⑥	⑦	⑧
6. My child likes the foods provided.	①	②	③	④	⑤	⑥	⑦	⑧
7. My child has enough time to eat.	①	②	③	④	⑤	⑥	⑦	⑧
8. My child eats in a pleasant dining area.	①	②	③	④	⑤	⑥	⑦	⑧
9. My child likes the taste of the food.	①	②	③	④	⑤	⑥	⑦	⑧
10. The foodservice staff are friendly to my child.	①	②	③	④	⑤	⑥	⑦	⑧
11. My child thinks the foods on the serving line are attractively presented.	①	②	③	④	⑤	⑥	⑦	⑧
12. My child thinks the dining area is clean.	①	②	③	④	⑤	⑥	⑦	⑧
13. My child selects nutritious foods.	①	②	③	④	⑤	⑥	⑦	⑧

14. How many times a week does your child eat school breakfast? ① ② ③ ④ ⑤

15. How many times a week does your child eat school lunch? ① ② ③ ④ ⑤

16. How many times a week does your child bring a lunch from home? ① ② ③ ④ ⑤

17. The number one reason my child eats school breakfast is: (Please circle only one)

- a) The prices are good.
- b) The food is good.
- c) It is convenient.
- d) Teachers encourage them to eat.
- e) I do not prepare breakfast at home.
- f) The meals are nutritious.
- g) My child likes it.
- h) Their friends eat school breakfast.
- i) My child does not eat school breakfast.
- j) The school does not have a breakfast program.

18. The number one reason my child eats school lunch is: (Please circle only one)

- a) The prices are good.
- b) It is convenient
- c) Teachers encourage them to eat.
- d) I feel school lunch is better for my child than a brown bag lunch.
- e) My child likes it
- f) Their friends eat school lunch.
- g) The meals are nutritious.
- h) My child does not eat school lunch

19. My child is in grade: (Please circle)

- a) kindergarten b) 1st grade c) 2nd grade

20. How many children do you have in grades: (Please circle)

- | | | | | | | |
|--|---|---|---|---|---|-----------|
| Kindergarten | 0 | 1 | 2 | 3 | 4 | 5 or more |
| 1 st grade | 0 | 1 | 2 | 3 | 4 | 5 or more |
| 2 nd grade | 0 | 1 | 2 | 3 | 4 | 5 or more |
| 3 rd grade | 0 | 1 | 2 | 3 | 4 | 5 or more |
| 4 th grade | 0 | 1 | 2 | 3 | 4 | 5 or more |
| 5 th grade | 0 | 1 | 2 | 3 | 4 | 5 or more |
| 6 th - 8 th grade | 0 | 1 | 2 | 3 | 4 | 5 or more |
| 9 th - 12 th grade | 0 | 1 | 2 | 3 | 4 | 5 or more |