

**Barriers to Recess Placement
Prior to Lunch in Elementary Schools**



National Food Service Management Institute
The University of Mississippi
1-800-321-3054

2005

This publication has been produced by the National Food Service Management Institute–Applied Research Division, located at The University of Southern Mississippi with headquarters at The University of Mississippi. Funding for the Institute has been provided with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service, to The University of Mississippi. The contents of this publication do not necessarily reflect the views or policies of The University of Mississippi or the U.S. Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

**National Food Service Management Institute
The University of Mississippi**

Building the Future Through Child Nutrition

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The purpose of NFSMI is to improve the operation of Child Nutrition Programs through research, education and training, and information dissemination. The Administrative Offices and Divisions of Technology Transfer and Education and Training are located in Oxford. The Division of Applied Research is located at The University of Southern Mississippi in Hattiesburg.

MISSION

The mission of the NFSMI is to provide information and services that promote the continuous improvement of Child Nutrition Programs.

VISION

The vision of the NFSMI is to be the leader in providing education, research, and resources to promote excellence in Child Nutrition Programs.

CONTACT INFORMATION

Headquarters

The University of Mississippi
Phone: 800-321-3054
Fax: 800-321-3061
www.nfsmi.org

**Education and Training Division
Technology Transfer Division**
The University of Mississippi
6 Jeanette Phillips Drive
P.O. Drawer 188
University, MS 38677-0188

Applied Research Division
The University of Southern Mississippi
118 College Drive #10077
Hattiesburg, MS 39406-0001
Phone: 601-266-5773
Fax: 888-262-9631

Acknowledgments

WRITTEN AND DEVELOPED BY

**Alice Jo Rainville, PhD, RD, CHE, SFNS
Professor of Human Nutrition and Dietetics
Eastern Michigan University**

**Kay N. Wolf, PhD, RD
Associate Professor of Medical Dietetics
The Ohio State University**

**Deborah H. Carr, PhD, RD
Director, Applied Research Division
National Food Service Management Institute**

**EXECUTIVE DIRECTOR
Charlotte B. Oakley, PhD, RD, FADA**

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**BARRIERS TO RECESS PLACEMENT
PRIOR TO LUNCH IN ELEMENTARY SCHOOLS**

EXECUTIVE SUMMARY

Studies have shown children who have recess placement prior to lunch instead of after lunch consume significantly more food and nutrients and waste less food (Bergman, Buerger, Englund, & Femrite, 2003; Getlinger, Laughlin, Bell, Akre, & Arjmandi, 1996). Yet, according to the School Health Policies and Programs Study, only 4.6% of elementary schools schedule recess prior to lunch (Wechsler, Brenner, Kuester, & Miller, 2001). Therefore, based in part on this evidence, it is important to investigate the barriers to recess placement prior to lunch.

Using focus group research methodology, the National Food Service Management Institute (NFSMI) Applied Research Division conducted a study to determine barriers to scheduling recess prior to lunch in schools participating in the National School Lunch Program (NSLP). After pilot focus groups in a Midwest district, focus group meetings were conducted with homogenous groups of school administrators, school nutrition personnel, teachers, and parents from three school districts. The school districts were selected based on U.S.D.A. region (Mountain Plains, Southeast, Northeast) and current recess placement after lunch in the elementary schools. Foodservice directors in these regions were contacted via phone and electronic mail to determine current recess placement and willingness to host the focus groups in their district. Focus group participants were invited by the researcher and/or the school personnel in the district. There were four focus groups (one with each group) held on the same day in each district with 21-26 participants in each district.

Each focus group meeting was tape-recorded and transcribed to make a complete record of the discussion available. The strength of this study approach was the diverse group of school personnel and parents who shared their experiences in an open-ended discussion format.

Participants shared a variety of barriers to the placement of recess prior to lunch.

The barriers most frequently mentioned by administrators included: a) preservation of morning hours for academics, b) logistical concerns of supervision, hand washing, and cold weather clothing, c) possible resistance by faculty, staff, and parents, and d) tradition. The barriers most frequently mentioned by school nutrition personnel included: a) supervision, b) movement of children on and off playground, c) scheduling, and d) winter clothing. The barriers most frequently mentioned by teachers were: a) logistics, b) academic priorities, c) willingness of administrators, d) exercise, e) weather, f) scheduling blocks, and g) tradition. The barriers most frequently mentioned by parents were: a) logistics such as scheduling, staffing, and space b) winter clothing, c) nutrition beliefs, d) previous experiences with a family member, e) tradition; f) behavior, and g) communication.

There were positive outcomes predicted for recess prior to lunch including a) food wastage will decrease as children do not race to recess, b) students will eat better, not just run to recess, c) behavior improvement and d) conflict management of recess issues occurring outside of classroom time. Participants felt the most important topics discussed were student learning and behavior, nutrition, scheduling, hand washing, operational procedures, and timing of lunch.

To convince school administrators to schedule recess prior to lunch, participants recommended research that demonstrates that students' readiness for class is better when recess is prior to lunch and awareness of model programs that are successful.

More research studies regarding recess prior to lunch are needed to validate these results. Financial studies would be beneficial to assess actual costs of supervision, a concern of administrators. Educational and training resources for school personnel and parents are needed. The results of this qualitative study provide useful information to school personnel, parents, and state agency personnel to effectively consider implementing and promoting recess prior to lunch.

INTRODUCTION

The U.S. Department of Agriculture Food and Nutrition Service reports the National School Lunch Program (NSLP) is operating in nearly 100,000 public and non-profit private schools and residential child care institutions. The NSLP provides nutritionally balanced lunches to more than 28 million children each day (U.S. Department of Agriculture, 2005).

The benefits of school meals to children include improved nutrition, health, and well-being, promotion of growth and development, protection against diseases and chronic health conditions, and development of good eating habits (Buzby & Guthrie, 2002). However, a review of plate waste in school nutrition programs conducted by the U.S. Department of Agriculture Economic Research Service (Buzby & Guthrie, 2002) found that in addition to the direct cost of food, plate waste may reduce the nutritional benefits that children receive from the NSLP. An environmental factor that affects consumption and food waste in the NSLP is the placement of recess in relation to the lunch period.

Studies have shown that children who have recess placement prior to lunch instead of after lunch consumed significantly more food and nutrients and wasted less food. Bergman, Buerger, Englund & Femrite (2004) found that food waste in a school with grades 3-5 (n=1119) that had recess prior to lunch was 27.2% compared to 40.1% in a school with grades 3-5 (n=889) that had recess after lunch. Also, the intake of calories and nutrients including calcium, vitamin A, and iron was significantly greater for all students when recess was scheduled prior to lunch ($p < 0.0001$). A study in an Illinois school with grades 1-3 (n=67) by Getlinger, Laughlin, Bell, Akre, Arjmandi (1996) found that overall food waste decreased from 34.9% to 24.3% when recess was scheduled before lunch instead of after lunch. They also found that recess after lunch caused stomach discomfort and dizziness. The authors concluded that recess scheduling is a

factor that teachers, school nutrition staff, and school administrators can control to enhance student achievement. Read and Moosburner (1985) found that fourth and fifth grade students in a Nevada school wasted less milk when recess was scheduled prior to lunch.

In 2002-2003 the Montana Team Nutrition Program worked with four schools to promote a Recess Before Lunch policy (The Montana Office of Public Instruction School Nutrition Programs Pilot Project Report, 2003). They found that the average amount of food and beverage waste decreased after implementation of the policy. Surveys of administrators, teachers, and school nutrition personnel found that the atmosphere in the cafeterias was more relaxed, quiet, and conducive to eating. They also found there was a dramatic decrease in discipline problems on the playground, in the lunchroom, and in the classroom, and that children returned to class more settled, calmer, and ready to learn. Focus groups with children found that children liked being able to play prior to having lunch.

The many benefits of scheduling recess prior to lunch have been documented. Yet, the School Health Policies and Programs Study indicates only 4.6% of elementary schools schedule recess prior to lunch (Wechsler, et al., 2001). Therefore, it is important to investigate the barriers to scheduling recess prior to lunch.

METHODS

The Eastern Michigan University Human Subjects Committee approved the protocol and focus group questions. A copy of the letter of approval is in Appendix A.

Focus Group Design

This study used a focus group methodology to explore the barriers to recess placement prior to lunch in elementary schools for school administrators, school nutrition personnel, teachers, and parents. *Focus Groups: A Practical Guide for Applied Research* by Krueger and Casey (2000) was used as the basis for development of the research method. Data were collected in a systematic approach by asking semi-structured, open-ended questions. Each question had a distinctive function in the focus group research process.

Participant Selection

School districts were selected based on U.S. Department of Agriculture region (Midwest, Mountain Plains, Southeast, Northeast) and current recess placement after lunch in the elementary schools. Foodservice directors in these regions were contacted via phone and electronic mail to determine current recess placement and willingness to host the focus groups in their district. Focus group participants were invited by the researcher and/or the school personnel in the district.

Focus Group Meetings

After four pilot focus group meetings with school administrators, school nutrition personnel, teachers, and parents from elementary schools in Novi, Michigan (n=22), focus group meetings were convened in Denver, Colorado (n=24), South Portland, Maine (n=26), and Kenton County, Kentucky (n=21) in spring, 2005. Following the pilot focus group meetings, a review of the focus group questions and focus group plan was completed. The researchers refined and

finalized a series of nine questions designed to explore the barriers to recess placement before lunch in elementary schools. See Appendix B.

The same individual moderated all of the focus group meetings. The assistant moderator/recorder compiled notes. A series of questions focused on the barriers to having and scheduling recess prior to lunch. Another question focused on convincing administrators to schedule recess prior to lunch. Overall the session moved from discussions related to specific content to a more open-ended discussion of topics that were of particular interest to the participants. For example, one of the final questions asked participants, "Is there anything we should have talked about but didn't?" Throughout the focus group sessions, the moderator used a structured approach to keep the discussion focused on the selected topics. Each focus group session was tape recorded and transcribed so that a complete record of the discussion was available for analysis.

Data Analysis

The pilot focus group transcripts were not included in the analysis. The "long table" methodology of Krueger and Casey (2000) was used to analyze transcripts from the focus group meetings. In this method, the transcripts were color coded by location, cut apart by comment, and arranged by content on large sheets of paper. Independently, the researchers also conducted a systematic, question-by-question, analysis of the transcripts. Then comments for each question were thematically categorized and summarized.

RESULTS AND DISCUSSION

Comparing the summarized comments from each session revealed a series of issues that occurred throughout all focus group discussions. The following is a summary of the responses for each type of participant. The quotations of representative comments are italicized.

School Administrators

School administrators discussed the current status of recess and lunch. They were in agreement that children rush through their lunch because they are anxious to go outside.

- **Food wastage**

“It is important for kids to not be rushed through lunch. They eat too quickly. They want to get out and play. A lot of our schools don’t have recess at other times during the day...It’s their one time to get outside and play. They waste a lot of food. Kids eat quickly and waste food.”

“...they waste a lot of food. We have said they would be calmer if they had recess first.”

“We know other schools who have tried it (recess prior to lunch) have testimonials that the nutrition intake is improved, that they make better choices and eat more thoroughly when they are not rushed to get outside to play.”

- **Behavioral issues associated with recess and lunch**

“What they get now is the flip side and all of the problems on the playground (fighting, who did this and that.) Problems come in with them.”

“It is very inviting to think about kids behaving better in the cafeteria, because that is a problem.”

“Some kids who could become a behavior issue are the five minute eaters who are stuck there until class starts.”

“I’m just thinking about the ones who eat quickly, how to maintain appropriate behavior. If they are done eating, will they sit there quietly until it is time to go to class?”

School administrators had positive comments about the potential to solve conflicts that arise from recess before students go back to class.

- **Conflict management**

“Just thinking about the conflict management piece, has anyone tried a conflict management center in the cafeteria? One of the things that happens when they come in off the playground, they tell the teacher what happened on the playground, ‘so and so took my ball’ and they are not sure what to do. We could have a conflict center in cafeteria to work out the problems there.”

“...those conflict mediators could help. Kids might want to work it out before they eat, in the first five or 10 minutes of lunchtime.”

The barriers to having recess prior to lunch were as follows: a) preservation of morning hours for academics, b) logistical concerns of supervision, hand washing, and cold weather clothing, c) possible resistance by faculty, staff, and parents, and d) tradition.

- **Preservation of morning hours for academics**

“I’ve always felt kids are more focused and responsive in the morning in the regular classroom. We need proven facts that they can learn as well in the afternoon, especially in reading and math areas.”

“So if the kids went to recess before, although it’s not like I wouldn’t consider it, but if they went to recess before in order to give them a break to go to the bathroom, they wouldn’t have much instruction time in the morning and the afternoon would be awfully long.”

“I just have always, I know even when I taught P.E. that especially the primary kids, we always had them scheduled in the afternoon because they needed that time because they were focused on learning in the morning and best learning time is in morning for most kids.”

“The literacy program we have. The block has to be almost 90 minutes. You’re asking them to go to lunch earlier.”

“It is sometimes a challenge to get enough of a learning block in with recess before lunch. Other kids...Some schools are already eating early, at quarter to eleven. If you bump that back...”

- **Logistical concerns of supervision**

“As long as they are disciplined about getting the children in, then your cafeteria schedule will go according to schedule. If not, that could cause problems. That could be a barrier I would think. If the teachers aren’t disciplined about getting the children into the building in time to take care of toiletry needs, then the class behind them is slowed down.”

“Also, supervision. If you have recess before lunch, you really need someone to take them into lunch. If you have recess before lunch, that is one less person out on the playground supervising kids.”

“...on the larger playgrounds you want to make sure that you have enough coverage for safety of the kids. To take one supervisor off is just a concern.”

“Now, you would want to work with physical education teachers, especially if they are involved in organizing how the kids line up, the whole system of getting them in for lunch.”

- **Logistical concerns of hand washing**

“It’s hard to have enough supervision in our schools and to take somebody away to line the kids up, take them inside, hand washing procedures. These are concerns that schools would have to work out regarding the logistics to make this happen.”

“As a school we have talked about it for the past few years, implementing it and then it just never seems to be put in place because of washing the hands.”

- **Logistical concerns of coats and cold weather clothing**

“Do we have enough personnel to go into the classroom? It seems to me that getting them off the playground and the jackets...”

“We need to look at the number of lunch aides, especially for the little kids. They could take off their jackets and hang them up before lunch. The students might not have as much time to play in the winter.”

- **Possible resistance by faculty, staff, and parents**

“Do you think there would be resistance from teachers? Changing the culture, another initiative, and the routine.”

“Mine are very willing.”

“Instead of taking them (students) to the cafeteria you take them outside.”

“The people to bring along are the lunch aides. So many of them are parents, too. They will make or break it. Lunch aides are a key.”

“I see one of the bigger barriers getting people to buy in that this is better for students.”

“Teachers are exhausted by the end of the day. They like that time to unwind. Nobody wants specials in the morning because that makes for a long day without a break. It’s that whole buy in thing.”

“It would not be a barrier but a paradigm shift, it would be a matter of ‘this is something new’. It would be having teachers say, ‘then we have the whole afternoon with no break’. It is probably buy-in as much as anything.”

- **Tradition**

“This is really changing a practice that has gone on a long, long time. Our grandparents went to recess after lunch. So it truly is a paradigm shift. People will think that just because we’ve always done it this way, it is the right way. You’re messing with tradition. That’s a barrier.”

When asked about what it would take for them to change their schedule to recess prior to lunch, administrators mentioned a) demonstrate readiness for class better when recess is prior to lunch through research and model programs that are successful, b) communication of plans, c) research results.

- **Readiness for learning**

“It would take some research on our part that could tell us that the instruction time in the afternoon is as valuable, especially for primary students as it is in the morning.”

- **Models of success**

“The school administrators here have created a school culture here with the teachers. We get some complainers but they always come along. The teachers are so supportive...So, it is a great place to try it.”

“Since they (principal and assistant principal) are willing and eager to do that this year, I think we will be having them report in (literacy lab style) just checking in periodically at our administrative meetings to see how it is going. We could do a survey of teachers and get feedback from them on how it is going. It would be qualitative but it would be something. I’m sure our foodservice director is interested in this. I think that’s what it will take, having a pilot here.”

Communication of Plans

“I think it would take a lot of conversations with teachers and the cafeteria manager trying to sell them on the idea. I can’t imagine my physical education teacher having a problem.”

“My physical education teacher is supportive. We’re wasting so much food. He was convinced we should try it and the more he talked about it, the more sense it made.”

“Part of your pitch to the teachers, teachers save time because they won’t have to spend as much time settling conflicts. You are gaining instructional time.”

“It is one of those things I would like to do. I have a nice staff that usually..., there might be a few who are not sure about it. I also have a school improvement team that I will bring this to and run it by them.”

- **Research results**

“Clearly it is discipline issues and creating a better culture for kids as they re-enter the classroom after lunch. Identifying that and looking at data and research. Studies would be helpful. Evaluating along the way to see how it works. Does it make a difference?”

“Research to share with other administrators would be very helpful.”

School administrators thought the most important topics were student learning and hand washing.

- **Most important topics for school administrators**

“What is best for kids. What is best for kids? If it is better to do it the way you say, the way the research is going, then we should do it.”

“Student learning.”

“Readiness for learning.”

“I can’t imagine that we won’t see a big difference. We will be setting the atmosphere during lunch. It is easier in the gym than outside.” (This comment is from a principal who was planning to schedule recess prior to lunch in the next school year.)

“I think hand washing too.”

School Nutrition Personnel

The school nutrition personnel had positive and negative introductory remarks about recess prior to lunch.

- **Recess prior to lunch gives children a chance to play**

“That way the kids have been stuck in the classroom all morning and they get outside to talk and play. This way, they can play and run off their energy...”

- **Recess prior to lunch improves appetite**

“I think recess before lunch would be a good idea. Because what we see is kids come in from sitting in the classroom, come in to lunch but what they really want to do is go out to play. They go through the line, dump their trays, and raise their hands to go outside. They don’t eat because they want to go outside to play. So, they are not eating. But if they had recess first, when they come in, their appetite is increased. They come in and they want to eat more.”

“From a strictly nutrition point of view, from every study I have read, it is much better for the children to go out first because they are ready to settle down...”

“If they know they are going back to class, I guess they would eat everything-they wouldn’t be in a hurry.”

- **Hand washing is a concern**

“They come in with sweaty, dirty hands. I’ve never seen a teacher take them to the bathroom to wash their hands. ...straight from recess to lunch...”

“...how they will wash their hands before they eat?”

- **Recess prior to lunch would not improve appetite**

“They get so fired up, they need time to wind down before they start eating their lunch. They come in and they are so wound up and full of energy.”

“I think about them being too hot and not ready to eat and then what they do eat, they get sick.”

- **Past history of recess prior to lunch**

“At my school it wasn’t properly organized. They had wipes for the kids but they got them in line just before getting the milk. A lot of kids, they would hold up big signs with their room numbers they wouldn’t come in when they were outside. Half the time, I don’t know if we fed those kids.”

“K-2 they go out and come back in and that’s great. Now 3-5 grade is tricky because yes, they do go out to recess, then they come in for lunch but they can go back outside after lunch. They might drink their milk but that’s it. They don’t eat lunch. They go back outside.”

The school nutrition personnel reported the barriers to recess prior to lunch as a) supervision, b) movement of children on and off playground, c) scheduling, and d) winter clothing.

- **Supervision on playground and in cafeteria**

“Enough teachers on playground. Supervision.”

“That we are not leaving children out on the playground by themselves.”

“If they did that (staggered students entering the lunchroom from playground), the children wouldn’t like that because some would get a longer recess. We don’t have enough people.”

“That is part of the problem. One lunch aide to two tables. It’s too much in a short time.”

- **Operational procedures of moving children on and off of playground**

“Where there is no overlap. When that group is done playing outside, all the kids come in. Then another group goes out.”

“They usually don’t have enough supervision.”

“That’s true. I have a few kids that come in at 1:05. Last week we were cleaning up and I said, ‘Where have you been?’ ‘I didn’t hear anybody call me in.’ Oh, wow. I said, ‘When your little friends disappear, why don’t you disappear too and come in?’

“They were so engrossed in playing.”

“Organization.”

“They come from art class and bring paintings. They bring soccer balls, big things of cupcakes because it is their birthday through the line.”

“Kick balls, soccer balls.”

- **Scheduling**

“If everybody has recess before they come to lunch, then lunches would be later.”

“The school curriculum because they have so much they have to pack in with the literacy.”

“...they can’t adjust our schedule when one grade level is gone”

- **Logistical concerns of coats and cold weather clothing**

“The season of year, whether we are in boots in a foot of snow or in shorts on the tar.”

“The wet clothes in winter, jackets, snow pants, mittens and keeping everything together to go back to the classroom when they are done eating.”

“In the winter, they are trying to juggle their clothes and they have their snowsuit on with mittens and hats, that is an issue whether you do it before or after if they don’t go to the classroom in between lunch and recess.”

“It is easier to have them dress in the classroom, go outside and come in. I’ve done recess both ways. We used to do it here first. The only thing we are concerned about is less time in the recess and lunch module, cutting the time back.”

“When we are lined up in the wintertime, we couldn’t fit all the lines into the building from the back playground into the building. Children were backed up waiting to get in. That was a problem. How we solved that was, children were seated first with their clothing on and then the tables were called up to the line. Everything took twice as long. They had to be seated and take their stuff off. Then one table at a time got called up.”

“...we have to open condiment packages, milk (cartons), cookie and cracker packages, fork packages. Everything has to be opened. If you have one lunch aide for 30 something kids, plus the jackets, coats, boots, and mittens. It is a lot.”

School nutrition personnel thought school administrators could be convinced to schedule recess prior to lunch through: a) research and awareness, b) observation of children in the cafeteria, c) student preference, and d) suggestion.

- **Research and awareness**

“If more of them were aware. Make them aware of the research. They have so many things on their plate.”

“Awareness is the big issue, the facts. Just like, we have a lot of problems with principals not wanting sugared cereals because it makes the kids hyper. There was a program on Dateline last week saying that sugar does not cause hyperactivity. It is the excitement of what is going on. They are excited about the birthday party, not the sugar in the cake. Lots of times, principals and administrators don’t have the facts. They go with the myths or traditions. I would say knowledge of facts and statistics.”

“They like facts.”

“Letting them know, they need to know that if the kids are eating properly and getting the nutrition they need, they will learn better in afternoon. They will be more receptive. That’s a big thing.”

- **Observation of children in the cafeteria**

“They should come in and see how the children act and how they eat better.”

“Really, they do need to come in and see behavior and eating...”

- **Student preference**

“When they come in from recess, they are quite wound up. It takes awhile to sit down in the classroom. If you have had a good meal, you are ready to sit for awhile, right?”

“I think kids are anxious to get outside. When they leave the classroom, they are ready to play. I think most children would like it.”

“I agree with you, they are ready to blow off some steam.”

“They have been in a structured environment all morning.”

“We used do it and they liked it. The problem was having enough people when we came in. I do agree that the children would like it. The children go from sitting in a classroom to sitting down at lunch. This way they can run, run, run for a half hour and then sit down.”

- **Suggest recess prior to lunch to school administrators**

“Start putting it in their minds. At the end of about six months, they will say, ‘I have a good idea’.”

“Let it be their idea!”

“They will figure it out.”

“Gotta’ plant that seed.”

School nutrition personnel did not report any barriers for themselves for recess prior to lunch.

- **No barriers for school nutrition personnel**

“Start lunch whenever you want. We are there. We’re ready.”

“We are flexible. We can start lunch at any time.”

“I don’t think it would affect us. If they did a test on it and let us go for a month, then we could tell you how it works.”

“It doesn’t affect us.”

School nutrition personnel felt the most important topics were as follows: a) nutrition, b) hand washing, c) scheduling, and d) operational procedures.

Nutrition

“Foodservice Director: I just think it is a good idea but they eat better and waste less and all of the things we have mentioned, but I understand the barriers and these are real issues. These (lunch aides) are the people to be talking to.”

“Here, when they go through that long serving line, there is not the time to sit down and eat. Whether before or after recess, there is not the time to eat it.”

“If the study shows that they would eat better, I think that is what they should try. Maybe they would behave better when they came in.”

- **Hand washing**

“Cleanliness of hands.”

“Cleanliness of hands and nutrition.”

“I agree.”

- **Scheduling**

“Scheduling.”

- **Operational procedures**

“The everyday, the way it is run. The nitty gritty of it.”

“It is very easy to say it is a great thing but it is the operation of it. They (teachers) are not there...A lot of the teachers in the building have never seen lunch or recess.”

“That long serving line is just a detriment to the kids having time to eat. It takes so long for them to serve themselves that they don’t have time to eat.”

Teachers

The teachers had positive remarks about recess prior to lunch for children's readiness for recess, conflict resolution in the classroom, and better nutrition. Some teachers had experienced recess prior to lunch in other school districts.

- **Children would be ready to go to recess**

*"It's motivation for kids to get their work done. So they can go to recess and then lunch."
"Some of the children have recess before lunch...the Head Start children...first of all the children play...they are getting some exercise...by the time we go in, and wash up, they are hungry...they have an opportunity to build an appetite. Their rest time after lunch is better."*

"Children with a mindset who could only think, after lunch, we are going to recess. We've got to get out of here because we have such a short recess, which is the most important part of the day to them..."

"I actually worked in a school before this school that had recess before lunch and it kind of works. It doesn't make the lunch process as hurried. It gives them a chance to get their energy out."

- **Conflict resolution during lunch instead of in the classroom**

"At our school we did recess before lunch and we alternated. We loved it because we weren't dealing with playground issues."

"When I had my most challenging class of my life, them going off to lunch is better than coming in the classroom and trying to get them calm. They seemed to pull it together because they were doing something else they enjoyed..."

"A benefit (of recess prior to lunch), they are all at each other's throats 'he did this...' and I say 'Did you deal with that outside?'. Well then it's done. That part takes up 15 minutes of my afternoon in Sept. and Oct.-it doesn't anymore. That would give some time to process recess arguments."

- **Better nutrition**

"I can see where they would eat more. Now they just want to get out to recess. That's a big thing. I can see where they would eat more and they would probably eat slower knowing they have to go back to class..."

"My children were hungrier after they had recess. They ate better."

The teachers reported the following barriers to recess prior to lunch: a) logistics, b) academic priorities, c) willingness of administrators, d) exercise, e) weather, f) scheduling blocks, and g) tradition.

- **Logistics of hand washing**

“The hand washing was a huge issue for us. As a kindergarten teacher, we were responsible for getting our kids in the middle of our lunch break, bringing them into our classroom to wash hands, having them wash their hands.”

“Washing hands is an issue. Some parents would send in wipes. A lot of kids don’t wash their hands.”

“When we talked about this before, How can we manage the hand washing...expense of wet wipes...hand them a wet wipe, call it good, but that gets expensive with 400 kids per day.”

“They would have to stop someplace and wash their hands. They use the closest one (restroom) to the classroom...”

“I don’t know that they are washing their hands. They may not wash their hands regardless of which is first.”

- **Logistics of winter coats and clothing**

“My concern would be in the winter months when they come in wet, sometimes soaked. They would have to take off their clothes before they come in. How would that work? Are they expected to sit in their wet clothes?”

“That was part of the reason it took so long. They also had to take off their coats and hang up their coats on their coat hooks. That would be hard with a limited number of lunch aides.”

“Where I used to work, we had recess before lunch. One of the big issues was in the wintertime. Numerous things were tried like bringing the coats to the lunchroom. It is difficult for little ones, bringing their coats with them and having to eat in their snow pants. Throughout the winter months, lunches were always backed up.”

“I think that (coats) is what makes most people hesitant. I do think it could be managed. A lot of people don’t like change, which might be another reason.”

- **Operational procedures of moving children off playground**

“That was part of the reason it took so long. They also had to take off their coats and hang up their coats on their coat hooks. That would be hard with a limited number of lunch aides.”

“Time.”

“For little kids, it definitely is an issue. ...The older kids, fourth and fifth graders obviously can do for themselves.”

“The time that would take out and how to manage 200 kids doing that.”

“You would need a little more time for the changing period. And teachers have a 45 minute duty-free lunch so there is no coverage.”

“If you want to take them back to the classroom and hang up stuff. Not coverage for that.”

- **Efficiency of lunch lines**

“It still goes back to logistics... If we as a group could figure out how to handle those logistical issues. I think one thing, address lunch choices, only have two choices.”

“I do think that would go a long way toward speeding up the process, eliminating some of that confusion, fourth and fifth didn’t have anything to eat so you need to stick with your choices. My kids say, ‘But I did’.”

“We are a self serve line and our kids serve themselves and so it is more difficult. On soup days, it is harder and it takes longer for the kids to get through. If you were at recess, you wouldn’t hear that. That would be a barrier, if you can keep a schedule.”

“If they are going to be rushed through lunch, even more than they are now, that will be horrendous for us because they will be upset.”

- **Academics in morning**

“As a mother it makes sense to me. My kids play all day and then come in and eat their lunch. As a teacher, it is a nightmare academically. That’s learning time. We need that learning time in the classroom. It would almost be impossible in my situation to have morning recess.”

“Unfortunately, the greatest barrier is the emphasis on test scores. The blinders are on.”

“That’s a good point. Our State Assessment Program...No Child Left Behind. The Governor has grades for each school... pressure is on teachers to get a good grade...”

“There is such a focus on literacy. Literacy is way overdone.”

“The priority for district times on programs... As far as it being a barrier, literacy has to go until 11:00. Maybe they need to know...they could have the same block.”

“In our school improvement plan, we (primary teachers) mandate that teachers in the primary (grades) have a reading block that is uninterrupted in the morning. We try to work on core

content in the morning because we feel that is when everyone is up and moving and ready to go so I can see teachers not wanting to disrupt that time for recess or try to bring kids back from recess and go right into reading.”

- **Recess is not linked to classroom productivity or nutrition**

“Recess is always just a schedule issue, not even a schedule issue but more of a part of the day vs. an important part of the day because I think sometimes it is a break for the kids which I think is important, but never has been linked to a lot of productivity in the classroom or increased nutrition. I don’t think we have seen those links as teachers in discussions of recess times because we haven’t seen the research.”

“With my third graders whenever we would have lunch, then lessons, I could see them drifting in the afternoon.”

- **Willingness of administrators**

“It starts at the top with your leader, the principal. Depending on their philosophy, some are ingrained. In our situation, we have a brand new principal who is willing to look at lots of things.”

“I see a lack of recognition and respect for physical development...”

- **Scheduling**

“I believe that in our building, the administrator (principal) makes the schedule. The academic periods are set, literacy, math. That is set but they do have control over recess time and lunch time and whether they are switched.”

“In my situation it is scheduling because we compartmentalize.”

“I would say scheduling overall and I have to say tradition.”

“Well, given we have a six hour school day with upwards of 425 students in recent years. Trying to work different shifts in of different grade levels that are compatible within a time that is appropriate to be eating lunch, where you can take full advantage of the cafeteria staff, the lunch aides, the playground. Make it work well, utilize the people and the space. I think that has been more of a consideration, the order that it happens, to get everybody fed in a window of time that is reasonable.”

- **Perceptions of exercise and eating**

“I don’t know if it is an old wives tale or what, but just I always like to think of exercising after I eat. Taking a walk or running it off.”

“Another teacher and I walk and then come in to eat.”

“I also wonder, if some of my kids play really, really hard and they are going, going, going. They come in and really need that down time. Are there stomachaches after? I think they need time to calm down and then to eat.”

“What about the dawdlers, slow eaters? Right now, in theory, the option would be there for them to stay on with another module. I don’t think that actually happens. In theory they could. Do they have enough time to eat? Do they get rushed at the end of it? They have run off their energy and then socialize and relax...What about those slow eaters? Do they finish in time?”

As an adult, I like to take a walk after dinner. They will lose that if you switch it.

- **Afternoon weather is better for recess**

“Mine is strictly personal. It is prettier in the afternoon weather-wise, warmer, versus 9:00 or 10:00 in the morning. I think I would get over that.”

“The grass is always wet in the morning. It wouldn’t have time to dry out.”

- **Tradition**

“I would say scheduling overall and I have to say tradition. I’m not sure we have looked at doing it. We can’t get all of ours (children) out there before their lunch. So scheduling would definitely be a problem but I’m not sure that anybody has looked at advantages to having it so that would just be tradition.”

“It’s the tradition that you mentioned. That’s the way you always do it. You go to lunch, you go to recess. My teaching partner said ‘our scheduling makes morning recess impossible’. And it isn’t but in our minds it is.”

The teachers discussed ideas for convincing administrators including: a) research, b) observation of better behavior and nutritional intake, c) communication of nutrition needs, and d) models of success.

- **Research**

“I think they would have to see research. They are not going to do something on a whim because I suggested it. It would have to be pretty backed up; it would have to be great data to show that it says, please look at this. Even if behavior was a decrease in card flips or whatever your behavior management system is or what have you. I think that would be convincing. If the importance was focused on the child versus convenience of the schedule. This is what is important for the child versus what is important for the school schedule. That would help. That is an extremely difficult task to convince administration to change something that has been done. The tradition is after lunch.”

“I think if you had statistics on the amount of food that is wasted, I know there must be some data on that. It must be tremendous, part of it is they may not have the appetite or they just want to go out and play. Whereas if it were reversed, if they had worked up an appetite. There is not that urgency to get to class like there is to get to recess. That would probably carry some weight.”

“Or if you presented research from places that have already tried this and shown that it was successful...”

- **Observation of better behavior and nutritional intake**

“The physical aspects, eating better would be enough to at least get the conversation going again.”

“There are parents who complain, ‘My child is not eating’. They are bringing back what I send. Maybe after exercise, they would eat better.”

“Kids being kids, once they get to the cafeteria, they are chatting so they are not eating.”

“They will be thirsty.”

“They drink better. That makes sense.”

“If you tried it with a couple of classes and it improved the behavior in the cafeteria, it would go a long way to convincing, a really long way. If they saw any little bit of (behavior) improvement in there.”

“If they saw kids eating better, working better and better behavior. I think they all would strive to make adjustments.”

“It might be a good idea to try it with a couple of classes to begin with. Gradually implement to get results, better behavior would be a selling point.”

- **Communication of nutrition needs**

“I think it would be really meaningful for someone who is highly educated and a good spokesperson, to go out and talk about nutrition...”

- **Models of success**

“We need a model to say this is what we should do and this is how everything would work in order to convince. This is what we should do and this is how everything would work. The logistics are what gums up the work.”

“For an administrator, they are looking at the management piece. If you can neutralize some of those arguments before they come up...A model that works.”

The teachers discussed the barriers among themselves. Some teachers did not foresee barriers to teachers if recess was prior to lunch. Other teachers thought that some teachers would resist a change in schedule and the issue of accountability for time came up. Teachers in Kentucky mentioned that weather is better later in the day.

- **No barriers for teachers**

“Not that I can think of.”

“For me there isn’t. (Physical Education Teacher) I’m trying to think of the classroom teacher setting. I don’t want them coming straight from recess to me. I’m trying to switch my mind over to classroom.”

- **Resistance from some teachers**

“You would have resistance from teachers also. When they (administrators) tell the teachers, you will have even more resistance because teachers are equally traditional. “I have recess at 2:00 and I have had recess at 2:00 for ten years. I’m not changing.” You know. That is a reality of what would happen. I don’t think if the principal came down and said, ‘Now your recess time is right before lunch’, I don’t think you would say, ‘Okay, wonderful.’ Equally, convincing administrators and the rest of the staff involved. Administrators are less apt to do it if resistance is coming from another group of people.”

- **Accountability for time**

“It would have to be in the schedule. For some of our classes, it would take at least five minutes or so to travel. Our playground is all the way at one end (of the school). If you are up at the other end of the building and upstairs, we have a huge building. You would have to plan for that but you would do that. How do you put that down in your lesson plans when you’re not supposed to have these five minute lapses between things? You have to account for the minutes to the state.”

“We are accountable for every minute. There isn’t a down time in between.”

“... it is very important that if your lunch time is 11:00 that you’re there, you cannot show up at 11:07.”

- **Weather is better later in the day**

“Mine is strictly personal. It is prettier in the afternoon weather-wise, warmer, versus 9:00 or 10:00 in the morning. I think I would get over that.”

“The grass is always wet in the morning. It wouldn’t have time to dry out.”

Teachers felt the most important topics discussed were as follows: a) nutrition and b) logistical concerns.

- **Nutrition**

“The most important is ‘What is better for the child?’ If their behavior improves, if they are eating better and more healthy. We have a low socioeconomic area and in my school we have a large population of free and reduced lunch. If we know they are getting one wonderful meal and they are eating, to me whatever is in the best interest of the child is the priority versus scheduling and everything else that comes, the politics of a school. The child. If it is proven to be better in a large sample of schools or kids, then it is definitely worth pursuing.”

“Yes.”

“That should be the bottom line.”

“To me, it would be the nutritional aspect - it makes more sense to create a system with the opportunity to have a good balanced meal, rather than getting ravenous because they didn’t eat their lunch and then eating junk food later.”

“Also, they have had a chance to be active - something that they want first. Have that block of time to be with friends and be active. Chances are they will come in and eat more. They will think more about eating.”

“It’s so non-traditional, you don’t think of it. And, to really see that it makes a difference. I would like to see this once. All three of these things (eat better, waste less food, and behave better), two of them are definitely very important to the child. Wasting less food would be better for the world and ecology. If it makes even a little bit of difference, it is worth looking at.”

- **Logistical concerns**

“Supervision and hygiene are two logistical issues to take care of.”

“If they went back to the classroom to wash, they could get their chips and lunch cards then.”

“My only concern is the management of it. Because where I worked before, it didn’t work because of the management. That’s my only hesitation.”

“I guess I am thinking it is a good idea. Most important would be a plan that would work.”

Parents

Most parents reported comments that were school-specific and child-specific rather than across schools. Therefore, there are more general themes than the other groups. The parents expressed positive and negative views of recess prior to lunch.

- **Positive comments**

“I understand the advantage of recess before lunch as far as stimulating appetites. I’m excited about the research that shows when they go back to the classroom, they are ready to learn...”

“I do agree it should be recess and then lunch. I have read the research as well. Being in schools and seeing the kids, half-eating lunch so they can get outside... If you get outside out of the way, it’s the down time to consume the lunch, calm them down, cool down.”

“With recess before lunch, they (children) have that time to calm down, it is easier on the teacher. I think it is deserving to think about the teacher and what she goes through.”

“My daughter in particular, if they have not had the time to socialize or whatever, at lunch, sometimes she is talking instead of eating...then they might be more focused on socializing than eating. If they were at recess doing all that stuff (socializing), they could get their socializing done and then focus on food.”

- **Negative comments**

“When you eat, people do get tired when they eat. And then they have recess, then eat lunch and they want to go to sleep in class, lazy.”

“I agree. Kids should have lunch and then go to recess.”

“I’ve always been of the mindset, If it ain’t broke, don’t fix it. My other driving concern, as a mother of a child who has difficulty moderating his behavior, having a full meal and then being required to focus for the next 2-3 hours, If they can eat and then burn energy, they are further along in the digestive process and they may be more alert when they come back in after having recess. We all want a siesta after a big lunch...”

“My question is, ‘Has the child had breakfast?’ I think that is an issue at our schools... We do not have a breakfast program.”

“Our culture is based on meals. My friend and I go to breakfast every Thursday. A lot of our socializing is around meal time. I’m sure there are children who are more focused on getting outside to play ball or run. I haven’t seen children wasting food or not eating. My son, if he is hungry, he eats.”

The parents discussed barriers to recess prior to lunch as follows: logistics such as scheduling, staffing, and space; winter clothing (Maine only); nutrition beliefs; previous experiences with a family member; tradition; behavior; and communication to parents.

- **Logistical concerns with scheduling**

“...because of scheduling conflicts, half the schools go out to recess first... We haven’t systematically studied it but I get comments from teachers that the older kids are less hungry later in the afternoon because they have had recess first. The younger kids hurry through their lunch so they can go outside...we see evidence of that in our school too. The biggest barrier is scheduling.”

“I think that in larger schools, I think it is much more difficult to implement...I like the idea but that is where I see an issue.”

“I’m concerned about taking time away from the morning, a time when I read articles and things, morning time is a critical time to learn, they are more alert, especially the younger children...”

“It depends what time lunch is scheduled. My son eats at almost noon which is a long time. I give him a good breakfast.”

- **Logistical concerns with supervision**

“Right now we can do it (lunch and recess) in 45 minutes but to do recess before lunch for the whole school, it requires an hour. That extra 15 minutes doesn’t sound like a lot to me but I talked to my principal yesterday and it would create a nightmare for her. She is relying on student interns, paraprofessionals, and library staff to monitor the lunchroom and playground, that extra 15 minutes causes a scheduling conflict for our school. Right now, that is the only barrier for our school.”

“I don’t know how it would impact (us) but right now there is not enough staffing for lunchroom.”

“I’m worried about who is going to watch the kids...who’s going to be out on the playground with the children? There is not enough staff out there with the kids now.”

- **Logistical concerns with space**

“It ties into waiting too long. Does take longer to get students through line. A lot of the schools I’m in have a small lunchroom. two shifts and it takes longer to get the students through the line...vast amount of time...A lot of times, adults say “hurry, hurry, hurry”...literally it is just too many kids and not enough space.”

“Could be, this goes along with the scheduling, if they have recess after lunch, it’s not necessarily right after lunch, it is anytime from 12:30 to 3:00 span. So what you’re suggesting is right before they go to lunch...too many kids trying to get out.”

- **Winter coats and clothing**

“(Recess) directly before lunch? Wet clothes in winter. Their cheeks get red. I don’t know where they put their stuff when they take it off.”

“No chance to go to classroom to hang up coats...”

- **Nutrition beliefs**

“...if they have lunch after recess, they have the calories even longer for the afternoon learning process. They will get hungry toward the end of the day. That affects learning also.”

“At our school they don’t serve breakfast. I know there are children who go to school without breakfast.” MODERATOR: THE BARRIER WOULD BE THE TIME BETWEEN WHEN THEY COME (TO SCHOOL) AND LUNCH? “The ones who eat (sugared cereal)...five hours into morning, they are wiped out.”

- **Previous experiences**

“She (daughter) didn’t like going to recess first and then having lunch. Because there were times she didn’t feel good going back to class... She told me she was tired. This is a kid’s point of view. She really didn’t like recess before lunch. This is all about the kids...she said she didn’t feel good going back to class...She wasn’t going to lunch until 12:00. She was already at school since 9:00, 8:30 or 9:00.”

“I’m against it. I have kids in elementary. My kids go to middle school and high school, after lunch they go to class. They are always tired after they eat.”

“As a parent, to me, at school, learning takes priority over working on nutrition. I feel like I can work on that at home. I send my kid to learn. Learning is the top priority. I guess my experience as an educator gets in the way a little bit. You get so much more mileage out of kids in the classroom before lunch...morning. I’m a high school teacher but I’ve taught elementary. ...Any time I had a class after lunch, it seemed like a waste.”

- **Tradition**

“I’m not sure because since we’ve been here for three years. It’s always been the other way. My son went out for a few minutes before lunch in kindergarten. I’ve never thought of it since then.”

“It’s always been that way. Until I was invited to join this group, I had not thought about it.”

- **Behavior**

“It might be a problem with those kids who say, ‘Is it time to eat? I’m hungry.’ It seems like the priority for them is to satisfy their hunger and then go out to recess... Once they are hungry, they can’t enjoy themselves no matter what they are doing.”

“Ability to re-focus, re-group, to get back on task with a full meal.”

“They almost need recess toward the end of the day because they seem more physically active.”

“A lot of teachers take away kids’ recess if they don’t have their homework done...that also affects how the child might behave...if they know they are not going to have recess that day or something.”

- **Communication to parents**

“As a parent volunteer, when I go to the lunchroom, they pick at their food and trash it and go on outside. Maybe they (students) will come in and eat and be happier. I still want to know how do we get the parents to buy into it? You guys didn’t have any knowledge of it so that is my number one barrier. I want to know if we implement this, are the parents are going to buy into it?”

“It would start at the school with the principal getting the information to the parents. It has to filter down through the principal...”

Parents discussed how principals could be convinced to schedule recess prior to lunch through research and awareness and parental requests.

- **Research and awareness**

“Show them the research.”

“Offering clear, consistent evidence that there are significant benefits.”

“I would think administrators are motivated by research and funding.”

“Our administration is absolutely on board with doing whatever is necessary to be on top of issues that benefit the children. If it is shown that it is better for children. They are really on board with that.”

- **Parental requests**

“Word needs to get out to the principals and then they will work with the lunch staff to make sure it works for your preparation and clean up and all that kind of stuff.”

“If you’re excited about this, take it back to your principal. I’m sure they can share literature with you. She will filter it out and send it home in the Thursday folder...And then, we use our PTA to have discussions.”

“Let them know what is going on about the change. Even have a trial.”

“Each school community is different. The needs are all different. Whatever needs you have, if there are discipline problems or some obesity problems or what have you...If you think this program would be helpful, If you want to go forward on it, meet with your principal and discuss...”

“The administration where I am will listen to the parents. I hate to say it but they will listen to parents more than the teachers. If the parents call and say ‘this has been proven’ or ‘this might be a good idea’ ...if the parents are convinced and push, they might try it. A lot of the teachers see and I see it too the food they throw away. They are hungry later because they haven’t eaten their lunch.”

Parents had the following concerns about recess prior to lunch: a) adequate staffing; b) communication of information to parents; and c) the need for data of outcomes.

- **Adequate staffing**

“Our district requires certified adults in both the lunchroom and the playground.”

“We have all the new schools opening up. We’ve lost a lot of staffing. We’re on a major change. And that is this year. I understand what you’re talking about when it comes to staffing.”

- **Communication of information to parents**

“Also, you could have your principal call the district Registered Dietitian who is helpful in getting information to your principal so that he can pass it on to the parents.”

“Share information, send home hard copies for parent information.”

“One hundred percent of the parents don’t know. It is principal’s decision and the principal is doing this in the best interest of the kids with the current data provided.”

“I expect eighty percent of those families to be contacted and let them know even if they have a flyer for sign off.”

“We talked about it. We took feedback. The decision was made, let’s do it. I’m pretty comfortable with that decision and that process.”

“I agree with you but I also expect my principal to make good and sound decisions that will positively benefit my child. And I feel that if the principal has notified me in the Thursday folder, I have to sign off on the folder saying that I have looked at everything in the folder.”

“At the PTA meeting, at the beginning of the year or end of this year, have an open house on it and let parents know. As a parent, I would like reassurance that if it doesn’t work, you will go back to the other way.”

“A lot of parents may not even care. I think you have a good number of parents who will have some good thoughts about it.”

- **Data of outcomes**

“The feeling is older kids can make it longer before lunch. And older kids are able to handle change better than younger kids. I think it could have gone either way and it wouldn’t have made a big difference.” (from a parent in a school that has implemented recess prior to lunch for some of the students)

“I want to know the data. How do we prove? I want to make sure there is a way I can access data to show it is working. Have the fights decreased in my school or have they not? Data to show it is working...”

“Each school will look for different types of data.”

Parents discussed behavior, nutrition and learning, and timing of lunch as the most important topics.

- **Behavior**

“I’m more concerned with the behavioral aspects of having a break. I see that as an advantage, having a break.”

“If they had recess first it wouldn’t be as hard on the teacher to try to get them back...calm down and relax at lunch...that would be an advantage for a lot of kids.”

- **Nutrition and afternoon learning**

“The research about nutrition is compelling. The afternoon is a concern.”

“My questions have been answered around the lunch hour. But there is still three hours left at the end of their day. I need to know what that looks like.”

- **Timing of lunch**

*“At our school, they don’t have a breakfast program. They go to school without breakfast.”
“If they were allowed a smart snack in the morning that would be good.”*

CONCLUSIONS AND RECOMMENDATIONS

Limitations to the Research Study

The results of this study cannot be generalized and the purpose of this study was to go in-depth into the topic of the barriers to recess placement prior to lunch. Another limitation of this study was the three districts chosen in the U.S.D.A. Mountain Plains, Southeast, and Northeast regions. The participants from Maine reported more winter weather concerns than the participants from Colorado and Kentucky. It is possible that results would have been different if different states in different U.S.D.A. regions were used for the study. However, focus group research typically includes three or four focus groups with a particular audience (Krueger & Casey, 2000). The results of these focus group discussions yielded consistent patterns.

Research Study Conclusions

This study of the barriers to recess placement prior to lunch revealed barriers that were specific to each group of school personnel and parents. The barriers most frequently mentioned by administrators included: a) logistical concerns such as scheduling, sanitation and supervision, b) tradition and previous history, c) use of dining space, d) cost, and e) possible resistance by faculty, staff, and parents. The barriers most frequently mentioned by school nutrition personnel included: a) supervision, b) movement of children on and off playground, c) scheduling, and d) winter clothing. The barriers most frequently mentioned by teachers were: a) logistics, b) academic priorities, c) willingness of administrators, d) exercise, e) weather, f) scheduling blocks, and g) tradition. The barriers most frequently mentioned by parents were: a) logistics such as scheduling, staffing, and space b) winter clothing, c) nutrition beliefs, d) previous experiences with a family member, e) tradition; f) behavior, and g) communication.

There were positive outcomes predicted for recess prior to lunch including a) food wastage will decrease as children do not race to recess, b) students will eat better, not just run to recess, c) behavior improvement and d) conflict management of recess issues occurring outside of classroom time.

School nutrition personnel thought that administrators would be convinced to schedule recess prior to lunch through research and awareness, observation of children in the cafeteria, student preference, and suggestion. Teachers thought that administrators would be convinced through research, observation of students' better behavior and nutritional intake, communication of nutrition needs, and models of success. Parents thought principals could be convinced to schedule recess prior to lunch through research, awareness, and parental requests.

The most important topics for administrators were student learning and hand washing. The most important topics for school nutrition personnel were nutrition, hand washing, scheduling, and operational procedures. The most important topics for teachers were nutrition and logistical concerns. The most important topics for parents were behavior, nutrition and learning, and timing of lunch.

Education and Training Implications

These results can be used to design educational resources and training programs for school personnel and parents. The benefits of scheduling recess prior to lunch need to be explained and solutions to the barriers can be provided. School personnel need awareness of model programs that are successful. Successful programs for schools of varying size need to be identified. The schedules for academics, recess, and the lunch program could be described so administrators can use them as templates to design their own plan. Sites that use peer conflict

management within the dining room could be used as demonstration projects to show improved utilization of time for behavior control rather than classroom time.

Training materials/in-service videos demonstrating successful program, plans for easy hand washing, and successful playground management may be developed. Programs also need to be conducted to assist all stakeholders in understanding nutrition, the school lunch program, and the importance of students eating their entire lunch.

Recommendations for Additional Research

More research studies of recess prior to lunch are needed to validate these results. To convince school administrators to schedule recess prior to lunch, participants recommended research that demonstrates that students' readiness for afternoon classes is better when recess is prior to lunch. Financial studies would be beneficial to assess cost of supervision concerns. Further studies should be conducted regarding afternoon student learning in the classroom when recess is prior to lunch. Case studies of successful programs should be conducted to identify plate wastage, behavior outcomes and supervision activities. Similarly, pre- and post- studies of schools that change from post-lunch recess to pre-lunch recess should be conducted to determine if changes in plate waste, behavior in the afternoon, supervision, costs, nutritional intake, and learning ability change. The results of this qualitative study provide useful information to school personnel, parents, and state agency personnel.

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APPENDIX A

EMU Human Subjects Approval Letter

(See hard copy of technical report.)

APPENDIX B

Recess Prior to Lunch Focus Group Questions

Recess Prior to Lunch Focus Group Questions

Revised 4-11-05

School Administrators

Type of Question	
Introduction	Please tell us your name and the first thing that comes to mind when you hear the word “recess”.
Transition	How do you feel about recess before lunch?
Transition	Are you aware of the research that shows children eat better, waste less food, and behave better with recess scheduled prior to lunch? Can you share your thoughts about this?
Key	What is the greatest barrier to <u>having</u> recess prior to lunch?
Key	What is the greatest barrier to <u>scheduling</u> recess prior to lunch?
Key	What would it take for you to change your schedule to recess prior to lunch?
Key	How could administrators be convinced to schedule recess prior to lunch?
Ending	Is there anything we should have talked about but didn’t?
Ending	Of all the topics we discussed, which one is the most important to you?

School Nutrition Personnel

Type of Question	
Introduction	Please tell us your name and the first thing that comes to mind when you hear the word “recess”.
Transition	How do you feel about recess before lunch?
Transition	Are you aware of the research that shows children eat better, waste less food, and behave better with recess scheduled prior to lunch? Can you share your thoughts about this?
Key	What is the greatest barrier to <u>having</u> recess prior to lunch?
Key	What is the greatest barrier to <u>scheduling</u> recess before lunch?
Key	Are there any barriers to recess before lunch for school nutrition personnel?
Key	How could administrators be convinced to schedule recess prior to lunch?
Ending	Is there anything we should have talked about but didn’t?
Ending	Of all the topics we discussed, which one is the most important to you?

Teachers

Type of Question	
Introduction	Please tell us your name and the first thing that comes to mind when you hear the word “recess”.
Transition	How do you feel about recess before lunch?
Transition	Are you aware of the research that shows children eat better, waste less food, and behave better with recess scheduled prior to lunch? Can you share your thoughts about this?
Key	What is the greatest barrier to <u>having</u> recess before lunch?
Key	What is the greatest barrier to <u>scheduling</u> recess before lunch?
Key	Are there specific issues that affect teachers regarding recess before lunch?
Key	How can we convince administrators to schedule recess before lunch?
Ending	Is there anything we should have talked about but didn’t?
Ending	Of all the topics we discussed, which one is the most important to you?

Parents

Type of Question	
Introduction	Please tell us your name and the first thing that comes to mind when you hear the word “recess”.
Transition	How do you feel about recess before lunch?
Transition	Are you aware of the research that shows children eat better, waste less food, and behave better with recess scheduled prior to lunch? Can you share your thoughts about this?
Key	What is the greatest barrier to <u>having</u> recess before lunch?
Key	What is the greatest barrier to <u>scheduling</u> recess before lunch?
Key	Are there specific issues that affect parents regarding recess before lunch?
Key	How can we convince administrators to schedule recess before lunch?
Ending	Is there anything we should have talked about but didn't?
Ending	Of all the topics we discussed, which one is the most important to you?



National Food Service Management Institute
The University of Mississippi
P. O. Drawer 188
University, MS 38677-0188
www.nfsmi.org

Item number R-93-05 (GY03)