



Recess before Lunch (RBL)

Studies summarized by King County Green Schools Program

CASE STUDY 1

The **Montana Team Nutrition Program** (MTN) worked with schools to help implement Recess before Lunch (RBL) across the state of Montana. The group's efforts guided other school districts across the country. MTN completed a survey in 2008 of four schools that implemented an RBL schedule. Results from the survey and previous research are highlighted below.

https://www.educationworld.com/a_admin/admin/admin389.shtml

Food waste results

The average amount of food waste per student decreased after implementation of the RBL policy.

The average waste per student decreased by 67 percent (phase 2) and then 79 percent (phase 3) at the northern MT K-2 school. This school also began offering extra water during lunchtime. They found that the children were thirstier, especially during warm weather months, as a result of going to recess before eating lunch.

A decrease in the number of unopened milk cartons was noted at all schools after implementation of RBL. This indicates that more children are opening their milk and consuming it, rather than leaving it unopened on their trays. This may assist students to meet their calcium needs for growing bones and provide a good source of protein.

Getlinger's 1996 research (similar to an earlier study by Read and Mooseburner published in a 1985 *School Food Service Research Review*) focused on the reduction of food waste in RBL environments. The researchers found that overall food waste decreased from 34.9 percent to 24.3 percent, and they credited this to students feeling less rushed through the meal.

Student behavior change

Due to Recess before Lunch, after-lunch referrals to the principal's office for classroom and other behavior problems decreased, from 96 referrals (in 2001-02) to just 22 referrals in the first eight months of the 2002-03 school year.

"The teachers love it. They don't feel like they have to cool down the children after lunch. In the past it could take 15 minutes to settle the kids down after recess. So we found a lot of academic time. We also saw a drop in the number of referrals to the nurse, and the cafeteria reported more kids eating and less food being thrown away."

Teachers reported increased attentiveness in their classes after lunch; they gained about 10 minutes of instructional time per class.

Lunchroom discipline problems dropped from 183 per year prior to the lunch program changes to only 36 in the first eight months of the 2002-03 school year. The team also noted that when students come in from the playground, the noise level in the cafeteria is high. Then they settle down. "And if they had a dispute on the playground, they tend to forget about it when they get to class."

CASE STUDY 2

The purpose of the **Peaceful Playground Program** is to introduce children and school staff to the many choices of activities available on playgrounds and field areas. This organization also sees benefit in placing recess before lunch.

www.peacefulplaygrounds.com

Benefits

Elementary students ate 24 percent more food, wasted 30 percent less food, ate 8 percent more calories, consumed 35 percent more calcium, and 13 percent more Vitamin A.

Placement of recess -- and nutrient consumption

Researchers found for all children that the percentages of offered food eaten were significantly greater and the amount of food wasted was significantly lower when recess was scheduled before lunch. Overall, food waste decreased from 40.1 percent to 27.2 percent when recess was scheduled before lunch.

Length of lunch period – and food consumption

Researchers compared the length of the lunch period and nutrient consumption. The amount of food eaten was significantly greater and the amount of food wasted was significantly lower for the students who had a 30-minute lunch period. Overall, food waste decreased from 43.5 percent to 27.2 percent when the length of the lunch period was 30 minutes versus 20 minutes.

CASE STUDY 3

The Relationship of Meal and Recess Schedules to Plate Waste in Elementary Schools by Ethan A. Bergman, The Journal of Child Nutrition & Management, Issue 2, Fall 2004.

<http://docs.schoolnutrition.org/newsroom/jcnm/04fall/bergman/bergman1.asp>

The purpose of this study was to determine the impact that scheduling recess before and after the lunch period had on nutrient consumption and plate waste for students in grades 3, 4, and 5. The study was conducted in two elementary schools in central Washington.

Table 2 shows the grams of food consumed and wasted by students in each of the schools. A total of 1,119 observations were made at School One and a total of 889 observations were made at School Two over the 20-day data collection period. Results show that for all children, the grams of food eaten were greater and the amount of food wasted was lower when recess was scheduled before lunch. Overall, food waste decreased from 40.1 percent to 27.2 percent when recess was scheduled before lunch.

Table 2: Mean Amount Of Food Offered, Eaten, And Wasted For All Student Trays In Grades 3-5		
	Recess Before Lunch (School #1)	Recess After Lunch (School #2)
All students grades 3 - 5	N=1119	N=889
Amount of food offered (g)	568.8 ± 52.2	565.3 ± 71.5
Grams of food eaten (and % offered that was eaten)	410.9 ± 103.2* (72.8 ± 18.2*)	330.7 ± 121.8 (59.9 ± 21.5)
Grams of food wasted (and % of offered that was wasted)	156.6 ± 108.1* (27.2 ± 18.2*)	223.1 ± 122.9 (40.1 ± 21.5)
All values are mean ± standard deviation.		
N represents number of lunch trays measured.		
*Two-sample t-test indicated significant difference compared to recess after lunch, p<0.0001.		