School nutrition programs focus heavily on the quality of foods provided. Yet, there is limited focus on the amount of nutrients students eat and whether students have enough time to eat. In 2004, Seattle Public Schools adopted a policy that requires lunch periods to be at least 20 minutes long (1). Adherence to this policy is however not clear (1). There is concern that students in the Seattle Public School district may not have enough time to eat school lunch. Lunch practices were assessed at Seattle elementary schools. The evaluation focused on the time students have to eat lunch and the amount of food they ate. Surveys of kitchen managers and interviews of principals illuminated factors that affect school lunch. Recommendations to ensure students have enough time to eat a nutritious meal are based off of these evaluations.

Healthy eating habits in children are important for their health, growth, and mental development (2). In January 2015, 38% of Seattle elementary students qualified for free or reduced lunch. These students rely on school lunch programs to provide energy and quality foods (3). Whether or not students will choose to eat healthy foods during school lunch depends on the amount of time they are given to sit down and eat (3). Students with longer lunch times eat more nutrients than students with a shorter lunch times (4). The American Academy of Pediatrics (AAP) recommends that students be given enough time to eat their school lunch because they are more likely to enjoy their food and eat healthier options when they are not rushed (5).

- Hunger is associated with irritability and poor academic performance.
- Seattle elementary schools had an average 20 minutes of official lunch time.
- On average, students had less than 13 minutes to eat lunch.
- Schools with higher amounts of students participating in free and reduced lunch had less time to each lunch.
- Students with longer lunch times consumed more calories and nutrients than students with shorter lunch times.
- The number of cafeteria supervisors may be linked to having more time to eat lunch.
- Recess before lunch has been associated with increased food consumption.
Lunch Time & Time to Eat

Several factors must be taken into account when determining the actual time students have to eat (6). This time is defined as the time from when a student gets their meal to the end of the lunch period (6). After taking into account the amount of time that it takes students to get to the cafeteria, use the restroom, and wait in the lunch line, only 10 to 15 minutes remain for students to eat their meal (7).

Lunch Time & Recess

Scheduling of recess in relation to the lunch period may also affect how much students eat. Studies have shown that higher student academic performance occurs when recess is scheduled before lunch (8). The USDA states that when recess is scheduled before lunch, students are able to burn off energy and have an opportunity to socialize, better preparing them to eat during lunch (9). Studies have shown students consume 67% more food, including fruits and vegetables, when recess is scheduled before lunch, compared to students with recess after lunch (10, 11).

Lunch Time & Academic Achievement

When students are given enough time to eat lunch, they have a better nutritional status. Nutrition status directly affects academic achievement, conduct, and overall school performance (5, 12, 13, 14). Students who are undernourished tend to become sick more often and miss school. This puts students behind in class and they are more likely to repeat a grade (15).

Lunch Time & Diet Quality

Over 70% of fruits and vegetables are thrown away by elementary school children (16). Nationwide school lunch waste is estimated to cost $1.2 billion dollars each year (16). High food waste may be the consequence of not giving students enough time to eat (17). Also, high food waste reflects the large amount of nutrients students are not eating (16). Giving students enough time to eat lunch may increase the amount of nutrients they consume and decrease food waste (16).

CHALLENGES:

Nutrition and adequate lunch time is not seen as a major priority in the setting of busy schools. Increasing demands on instruction time and employee contracts limit the ability to alter school schedules or add additional time for school lunch.
In order to understand the issue of adequate lunch time in Seattle elementary schools, information was collected through four approaches:

- A survey of kitchen managers, who are in cafeterias every day, explored whether these managers thought students had enough time to eat.

- School principal interviews were used to learn principal’s opinions about lunch time policy and attitudes toward new policy proposals.

- Cafeteria observations revealed the length of lunch periods, the time students spent waiting in line, and the total time to eat. These observations also took into account the number of lunch monitors present, the number of lunch lines, and the number of registers.

- Student plate waste was measured to determine what students are and are not eating.

These evaluations demonstrated that several Seattle elementary schools are not in compliance with national standards or Seattle Public School policy that mandates students be given at least 20 minutes to eat. While half of kitchen managers reported that students do not have enough time to eat, the issue was not a priority among most interviewed school administrators.

**RECOMMENDATIONS**

**To improve school compliance with lunchtime policy:**

- Place greater emphasis on the importance of lunch in the school day.

- Increase the dialogue and the collaboration between school administrators and Nutrition Services staff.

- Educate stakeholders (i.e., principals, teachers, cafeteria staff, parents, and students) on the importance of school lunch.

- Encourage a diverse coalition of stakeholders to advocate for lunchtime scheduling.

**To maximize lunch periods:**

- Schedule recess prior to lunch.

- Utilize more discrete recess cues.

- Train lunchroom supervisors to encourage positive eating behaviors in students.

- Emphasize the importance of giving students adequate time to get to the cafeteria.