

# Raising Student Achievement Through Better Nutrition

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## Introduction

It seems only natural that by now, people would be well aware of the importance of eating healthy foods. However, if you were to take a field trip through your average school cafeteria, you might notice that the foods on the students' trays don't reflect that thinking. In the school's defense, are fruits, vegetables, and whole grains offered? Yes. Are they fresh, appetizing, unprocessed, and low in salt and sugar? Not exactly. In the popular documentary *Super Size Me*, the field representative of Sodexo, a company which services over 400 K-12 schools nationwide, stated "[w]e are hoping through nutrition education the students will learn to make the right food choices without restricting what they can purchase."<sup>1</sup> However, it is rare that I see a student taking a large helping of the gray-green canned peas, rubbery canned fruit, or a large helping of lettuce and tomatoes on their meat taco. (I like vegetables, and even I don't eat those.) Between a slice of pizza or a tiny sorry-looking salad, what would the average kid choose? By not offering appetizing healthy foods, are we setting the kids up to make bad choices? In a school district like mine where over forty percent of the students are on free and reduced lunch programs, they are far less likely to come in with a (more expensive) healthy bagged lunch. As for the bagged lunches, they seem to come in an array of colors, few if any of which belong to fruit or vegetables. Adopting a better nutrition program in schools will not only affect positive changes in behavior, attendance, and overall health, it will improve students'

ability to learn and thus raise their levels of achievement. Reduce problem behaviors and referrals, increase student learning, raise test scores, and lower dropout rates? It is an administrator's dream. The dream however can become a reality, and schools have done just that by providing healthier food choices for students.

## Background

In June of 1946, President Harry S. Truman signed the National School Lunch Act. "The federally assisted meal program was established as 'a measure of national security, to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities.'" Additionally, in 1966, President Lyndon B. Johnson signed the Child Nutrition Act and remarked, "good nutrition is essential to good learning."<sup>2</sup> Yet, to this day we are struggling in our schools to get kids to attend, behave, and achieve. "The one place where the impact of our fast food world has become more and more evident is in our nation's schools."<sup>1</sup> The Nutritional Resource Foundation, created by nutritionist Barbara Stitt, Ph.D. and her husband Paul Stitt who holds a MS in biochemistry, is dedicated to helping students and adults alike eat more healthy diets. They point out the humbling statistic that "[l]ess than one in three children and adolescents meet dietary recommendations for limiting intake of saturated fat, less than one in five eats enough fruits and vegetables." Additionally, "meals served at school are often more deficient in produce than those at home. Fast foods have overtaken school cafeteria food and soft-drink machines have displaced real fruit juices as well as milk. When vegetables are

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offered, they are typically the steam table variety, overcooked and unappetizing.”<sup>3</sup> While originally schools began providing students with food to help improve their health, especially those from families that could not feed them adequately, now schools are the ones creating health problems for children.

### Defining the Problem

Test scores are low, and programs such as No Child Left Behind have shown little improvement. The *Washington Post* reports: “Most troubling for educators are the sluggish reading skills among middle-school students, which have remained virtually unchanged for 15 years, according to the National Assessment of Educational Progress.”<sup>4</sup> Administrators cringe at decreases in test scores, and remaining stagnant is not much of an accomplishment.

Schools have adopted breakfast programs, says Julie Skolmowski MPH, RD, because they know “that well-nourished students that skip breakfast perform worse on tests and have poor concentration.”<sup>6</sup> “Nutrients play a major role in learning abilities. If children’s bodies are left deficient day after day, as are most in America, their brains will not function properly and they will be under performing... Research suggests that skipping breakfast can affect children’s intellectual performance, and even moderate under-nutrition can have lasting effects on cognitive development. Children who are hungry are more likely to have behavioral, emotional, and academic problems at school.”<sup>3</sup>

So, how many schools give students breakfast? But what kind of breakfast are they eating? While we might maintain that we have come a long way and we have nutrition guidelines in our schools that must be followed, we still have children who are undernourished and underachieving, and our test scores are not where we

want them. According to Abram Hoffer, a medical doctor who also holds a Ph.D. in nutrition, “[o]ver 75 percent of our current diet consists of processed food. This diet is deficient in fiber, too rich in processed fats, too rich in simple sugars, and deficient in vitamins, minerals, and essential fatty acids... It is also too rich in additives... Food additives decrease the nutritional quality of foods.”<sup>7</sup> Jane Hersey, National Director of the Feingold Association of the United States, a group dedicated to helping children and adults apply scientifically proven dietary techniques for better behavior, learning, and health for over 30 years, further emphasizes that “[t]ypically, the reaction [to food additives] will be one of these: a change in behavior, a change in the ability to focus and learn.”<sup>8</sup> Why would we want to detract from the very skills and behaviors students need in order to be successful?

For some kids, the meal at school may be the only one they get that day. But we should be reminded that all children, regardless of socioeconomic status, are at risk for poor nutrition. As the number of parents in the workforce increases, children are left to fend for themselves when preparing meals at home. Therefore, it is our responsibility to make the meals they eat at school of the highest quality. This benefits not only the child, but also the entire climate, culture, and success of the building.

A parent should be tuned into whether or not their child is getting the proper nutrition. Lendon Smith, M.D., known nationally as “The Children’s Doctor,” asked parents to tune into statements like these during a school conference: “I know he knows the work, but he won’t put it on paper”; “He won’t work up to his ability”; “Some days he has it; the next day it’s gone.” These comments suggest “nutritional factors are a part of the explanation. The off-and-on phenomenon is the clue to fluctuating blood sugar... nutrition is the key factor in helping this particular child.”<sup>9</sup>

The School Nutrition Association (SNA) is recognized as the authority on school nutrition and has been “advancing the availability, quality and acceptance of school nutrition programs as an integral part of education since 1946.”<sup>5</sup> Reading through their recent report, *2005 School Nutrition Market Trends: Environmental Scan Update*, I found that pizza was named the top entrée during the 2003-2004 school year. In the same report it was indicated that “[p]oor nutrition and physical inactivity are shown to cost schools academic achievement and significant amount of funding.”<sup>10</sup> Perhaps they have considered that the two may be related.

### How Do We Fix It

If good food is available, children will eat it. Dr. Lendon Smith insisted that “[w]hat is needed is for somebody to do something about the avalanche of junk food, which increasingly displaces nutritious food in the diets of these kids and disposes them to rampage.”<sup>9</sup> If we want to increase the success of a nutrition program, we need to remove the junk, and then add the nutrients. “There is rapidly accumulating evidence that a child’s ability to learn can be improved by ...the improvement in general nutritional status through removing junk foods from his daily diet,” says Dr. Abram Hoffer.<sup>7</sup> This starts with setting standards: What foods will we serve in our schools?

In an alternative charter school in Appleton, Wisconsin, they have adopted a nutrition program that goes above and beyond the requirements. These are their goals:

Get everyone eating five servings of fresh fruit, fresh vegetables, and whole grains every day.

Promote and serve more fresh fruits and vegetables.

Eliminate food with artificial coloring, artificial flavoring and sweeteners.

Encourage parents and kids to pack healthy lunches.

Teach basic nutrition concepts.

Reduce children’s intake of hydrogenated fat, saturated fat, sugar, and caffeine.

The above will, among other benefits, increase attendance in school and work, and improve the behavior and learning ability of students.<sup>3</sup>

Not only do you feed them right, you tell them why they are being fed this way and how to make their own healthy food choices. “Several studies have shown that when schoolchildren are introduced to a new food in school, become familiar with it and learn about its origins and food value, they are more likely to eat it in the lunchroom and encourage their parents to serve it.”<sup>3</sup> Ultimately, we want children to learn how to make good food choices on their own, as they won’t always have the school to rely on.

### Good Outcomes

Is this goal being met? In this day and age even “computers are now helping school foodservice workers ensure that the meals offered in schools comply with nutrition standards,” and yet “it is another challenge altogether to ensure that students consume the nutritious foods provided.”<sup>11</sup> However, if there are no unhealthy choices available, it will be difficult for a student to eat a meal that is not nutritionally beneficial to them.

Here is a sample of the foods now available for students in the breakfast and lunch programs<sup>3</sup> in Appleton, Wisconsin.

The Appleton Central Alternative Charter School’s Lunch Menu:

1. Bottled water, 100% juice, milk, and blended energy drinks.
2. Whole grain foods free of additives, dyes, artificial preservatives and saturated fats.
3. A salad bar filled with dark green lettuce, tomatoes, carrots, cucumber, mushrooms, olives, peanuts, sunflower

seeds, broccoli and cauliflower, boiled eggs, whole-grain croutons, home-made applesauce, cabbage, peach and pear slices, pineapple and fruity salad.

4. Meats including lean pork, chicken, turkey, and fish.
5. A variety of spices, soymilk products and tofu are used as natural flavor enhancers.
6. Meals are cooked on site. No frying in a grease product.

The Appleton Central Alternative Charter School's Breakfast Program:

1. Bottled water, 100% juice, milk, and blended energy drinks
2. Whole grain foods free of additives, dyes, artificial preservatives and saturated fats.
3. Granola, peanut butter, almond butter, natural fruit preserves, fresh fruits.

According to the Nutritional Resource Foundation, outcomes of this Wellness and Nutrition Program included "increased ability to concentrate in the school setting, more on task-behavior, increased cognitive development, ability to think more clearly, objectively, and rationally, and dropouts and expulsions may be dramatically reduced." A teacher commented, "We noticed a change from the get-go. All teachers reported that students were able to concentrate for longer periods in class."<sup>3</sup> Teachers and principals have observed that "[g]rades are up, truancy is no longer a problem, arguments are rare, and teachers are able to spend their time teaching." Superintendent Dr. Thomas Scullen noted that the kids are coming to school, expulsions are rare, the drop-out rate is almost nil, and although he expected a healthy diet would improve behavior, he was surprised that it had such an impact on academic performance.<sup>12</sup>

The Whitefish Central School in Montana has also adopted this program. Over the past three years, "[t]eachers report that they have gained between 10 and 15% additional teaching time since

the children have calmed down and are more alert and able to focus. This is reflected in the fact that the school now ranks academically in the 76th percentile in the state." They also found that "[t]here has been another change in the cafeteria: the amount of food wasted has been cut in half, from 85 to 100 pounds per day, to about 45 pounds."<sup>13</sup>

Other schools with similar desired outcomes are also showing success. "...[A] recently released study by WestEd, a non-profit research, development and service agency, found that California schools with students who routinely engaged in healthy eating and physical activity had larger subsequent gains in test scores than other schools. 'These studies show what we have known - that healthy school meals play a critical and positive role in students' development and learning process,' said Donna Wittrock, president of the American School Food Service Association."<sup>14</sup>

In the Anthony Elementary School in Leavenworth, Kansas, the *Eat, Exercise, Excel* program left a principal commenting, "Discipline will no longer be an issue in this building."<sup>15</sup> We know that if our students aren't well behaved, they won't learn much. If they are removed from the room because of discipline problems, they learn even less.

### What Does It Cost?

Adopting a program like the one in the Appleton School District "costs about the same as any other school lunch program."<sup>1</sup> Perhaps the question we should be asking though is not what does it cost, but what will it cost if we do not adopt a strong nutrition and wellness program in our schools?

Action for Healthy Kids (AFHK) recently released a report titled *The Learning Connection*<sup>16</sup> that summarizes evidence demonstrating the negative impact poor nutrition, inactivity and weight problems

can have on student achievement. According to former US Surgeon General Dr. David Satcher, “*The Learning Connection* examines the impact of the root causes of childhood overweight and reveals a strong link between children’s health and academic success. This report provides insight on possible costs to schools as the result of poor nutrition, inactivity and weight problems, and makes the case for additional research to find more definitive data.” Dietician Julie Skolmowski writes, “[t]he consequences *The Learning Connection* presents for the learning process as well as to school budgets are striking. The report also quantifies dollars that schools lose when children are absent from school –small amounts for individual students but this can add up. Particularly, the report demonstrates that, “Even an average school with a high absence rate based on poor nutrition and physical inactivity would lose from \$95,000 to \$160,000 per year in state aid.”<sup>6</sup>

Our students are not the only ones that cost the district money when they are not healthy; sick teachers cost money too. “The Appleton, Wisconsin Alternative High School serves fresh, homemade foods that the students and faculty enjoy. The full cost for this transformation was only about \$20,000 per year- a fraction of what schools now spend to address the learning and behavior problems that are being caused, in part, by junk foods.”<sup>3</sup> Principal LuAnn Coenen said, “I can’t buy the argument that it is too costly for schools to provide good nutrition for their students. I found that one cost will reduce another. I don’t have the vandalism. I don’t have the litter. I don’t have the need for high security.”<sup>17</sup> One teacher noted that, “We’re concerned about new band uniforms. We’re concerned about the football team. We’re concerned about textbooks. Why not be concerned about nutrition? Nutrition should be part of the general operating budget.”<sup>12</sup> A member of

the Board of Education in the L.A. Unified School district observed, “It’s not about money; it’s not about economics; it’s about health.”<sup>1</sup>

### Support

In order for any change to be accepted, people need to be shown the advantages of doing it. If your district is not ready for a full-blown nutrition program, there are ways to gradually introduce healthy eating habits. Here are some steps to consider:

Use soy yogurt for dressings and tartar sauce, use reduced fat mayonnaise, use whole grain flour, have fresh fruit available, try lower fat cheeses, reduce amount of butter used in cooking, offer vegetarian toppings on pizzas, use lean meat, eliminate the deep fryer, limit the choice of hot dogs or foods high in salt, bad fat and coloring to no more than once monthly, remove salt shakers, offer low-in-sugar breakfast items, and clearly define the limits of fat and sodium that you expect in the foods served.<sup>18</sup>

As with any change, “[i]t starts with leadership. You have to believe that what you’re going to do is going to work, and then you have to have the teachers on board. Once you are able to convince them, it is pretty simple to get the kids to follow.”<sup>15</sup> Schools around the country are trying to get kids more interested in school lunches. Some examples cited by the School Nutrition Association:

In National City, California, the School Board passed a resolution proclaiming the week National School Lunch Week. Legislators, board members and parent groups have been invited to “do” lunch with the district’s students. Materials include posters, bookmarks and a parent newsletter.

In Adams County, Colorado, every day has a themed menu with items such as Rift Valley Baked Chicken and Call of the Wild Carrot Sticks. The district also will have

special giveaways for parents and children and Take Your Family to Lunch Day.

In Polk County, Florida, the Discovery Academy will become wild: tiki huts will cover each terminal at the end of the lunch line, vines and animals of every description will adorn the walls, a homemade full sized Jeep will be on hand and special surprises will be given away to students. Child nutrition staff will be sporting animal aprons and headdresses. A skit on the importance of good nutrition will be presented, and students will walk under a life-sized giraffe to receive their lunch.<sup>14</sup>

Now we just have to make sure that all the foods that are offered to kids in school are extremely nutritious. If we are going to get them excited about food, we had better make sure it is the right kind of food.

The Nutritional Resource Foundation has developed a comprehensive plan for approaching a nutrition program in schools. They offer research to back it up, examples of written policy their project districts adopted, and templates for administrators to send home and to the media. This makes implementation just that much easier.

The information is out there. There is research to back it up. As leaders in the business of helping kids, we must do what our students need and give them the competitive edge. Higher test scores, better attendance, and reduction of behavioral problems; it's not just an administrator's dream, it can be an administrative reality.

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