

FOOD FOR THOUGHT

John Mielke wasn't about to take no for an answer. When the retired Appleton cardiologist and long-time Appleton school board member heard that Appleton West teacher Amy Loritz had been turned down for a second grant to continue her high school garbology research project, he sprang into action. Mielke knew Loritz's research had value and was determined to find the resources she needed to carry it out. His quest quickly landed him in the office of Lawrence associate professor of anthropology Mark Jenike.

Mielke knew that Jenike was a nutritional anthropologist and asked whether he might be interested in taking a more sophisticated look at high school nutrition for the Appleton Area School District (AASD). A meeting with Jenike and Loritz was arranged. Also attending were Greg Peter, assistant professor of sociology at UW-Fox Valley, Tom Pleger, associate professor of anthropology at UW-Fox Valley, and administrators from AASD. What happened next was the creation of the Appleton Collaborative Nutrition Project — a unique partnership between educators and students from three distinct educational institutions — charged with measuring students' perception of nutrition and collecting objective evidence of their nutritional habits.



Jenike (left) took the reins as principal investigator and the team laid out a four-part research project that would take more than two years and thousands of hours to complete: Peter would study social influences on nutrition, Loritz and Pleger would undertake garbology research, and Jenike would tackle two elements — diet and nutritional status, and nutritional culture. Each educator also relied on a number of students-turned-researchers to assist in acquiring data.

"It's common for anthropologists to work in communities or on a specific problem identified by a community," said Jenike. "But most of that work is done by applied anthropologists who work as consultants, not in an academic setting. Our collaboration was unusual in that the object was not only producing research that was useful for AASD, but also fostering education and training for high school and college students who participated as researchers in the project."

Subjects for the research would be volunteers from Appleton East and West high schools. Administrators district-wide were particularly interested in determining whether students from East, who years earlier had been exposed to an innovative elementary nutrition and exercise program, called Education for Healthy Kids, had different perspectives on nutrition than their West counterparts, who had not.

THE RESEARCH

Loritz, Pleger, Appleton East teacher Janelle Jansen and their teams of "garbage archeologists" had the messiest task — sifting through lunchroom trash at East and West, carefully measuring and recording the amount of food and drinks discarded, and noting whether the waste came from the cafeteria or from a student's brown-bag lunch. "There is a real sense of excitement opening up a fresh bag of garbage," said Loritz. "It sounds disgusting but the kids were actually pretty excited about it. They sorted and measured and had great discussions with other researchers in where things should be placed. I had done some research in college, but as a teacher, research is not a focus. It was really exciting for me to be doing research again and interacting with professors in the area."

Peter set out to evaluate the sociology of food and nutrition by interviewing students at both high schools. He wanted to determine how family, peers, the media, or exposure to other outside influences impacted a student's nutritional habits.

Jenike's research on diet and nutritional status involved asking students to recall what they had consumed over a 24-hour period, as well as gathering information on their height, weight, and age.

Tiffany Orcholski '07 was one of Jenike's assistants. "The area that I enjoyed the most was not recording the specific amount of each food, but how the students talked about food. Without realizing it, many of the participants' comments showed just how knowledgeable they were of diet, food, and nutrition. Many would say, 'I know it's bad, but...' or 'I actually had a more healthy day yesterday...' showing they know quite a bit about foods, nutrition, and diet. I was getting a lot of important information without really asking for it. What was so interesting about doing the research was finding out even more each day by paying attention to the little things!"

For the nutritional culture portion of Jenike's research, students were given 36 cards, each featuring the name of a food or drink item. The students were then asked to sort the cards into categories and to explain their reasoning. Jenike said the impact of being

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exposed to a nutritional education program early came through loud and clear. “One of the items was Pepsi®, and another was Monster Energy® drink. The kids at West grouped them with coffee and Diet Coke®, or caffeinated beverages. For the kids at East, there was a stronger association with those items as junk food, so they were categorized that way. The same was true for chicken nuggets. The kids at West grouped it with meat products, while the kids at East slotted it with junk foods, because of the way it was prepared.”

Those kinds of results, Jenike said, were continually repeated through all phases of the study, clearly suggesting that early programming had a lasting effect, “and the lasting effect was that kids were thinking about foods in a fundamentally different way — in terms of health and nutrition.” Added Peter, “I was surprised at how healthy some of the student perceptions were about food and nutrition. Some of them were really well informed, more than I would have expected at the high school level.”

LESSONS LEARNED

For Orcholski, having her first research project be one of this magnitude helped put her coursework in perspective. “This was a huge breakthrough for how I thought of anthropology. We talked all the time of procedures, analysis, and being part of the community. However, to actually do what you talk about and see the outcomes that you helped uncover, adds a whole new meaning to your studies.” Added Loritz, “One of the most meaningful things for me was having the kids who participated in the first year as West students come back the second year as UW-Fox Valley students. They were able to carry over the methodology that was taught to them the first year, and they were our ‘garbology experts.’”

Lee Allinger, AASD superintendent, said the district is already respected nationally

for its Healthy Kids initiative. “We’re not positioned to do research, we’re not trained in that aspect, and we don’t have the time, and so this was a unique opportunity for us to get the reassurance that we were on the right track. The ongoing challenge is to sustain support for the desire to grow a healthy lifestyle culture within each school. The study proved that we are building attitudes in our kids, so as they leave high school they have the commitment to eat well and live healthy lifestyles for the rest of their lives.”

As the result of the findings, Allinger said AASD has already implemented several changes. One elementary school is piloting a new hot lunch program featuring more fresh fruits, vegetables, and nutrient-dense foods. The Phy Ed curriculum has been changed to focus on lifetime physical activity, versus excelling in an individual or team sport. The district is also continuing its annual Education for Healthy Kids Summer Institute, which brings together more than 300 teachers and community residents to learn about health and wellness. “Three organizations worked together for a common goal, and all three benefited from it,” Allinger said.

Jenike said he hopes one day to take this research model into a university setting. “It would be interesting to recruit a cohort of incoming freshmen and follow them through their four years of college to see if we can get a holistic picture of what happens to nutrition during the college years. It would also be interesting to compare students in the Conservatory of Music and the college. Is there a connection between nutrition and academic performance, or nutrition and retention?”

For Mielke, the unique collaboration that he was able to orchestrate opened his eyes to the talent that is available in the Fox Valley. He’s proud and extremely satisfied with the results. “If you talk about prevention, almost always there is

an element of education. If you’re going to prevent something, you have to know something about it — and that means education. If we can do something in the early years of childhood, prevent something from happening from a health point of view, you’re really practicing medicine, but you’re practicing it way upstream. And the dollars spent there can be leveraged much more than if you were spending them downstream. I think I’m still practicing medicine, but in a different manner. So when talent comes along like Mark, Amy, and Greg, and they’re willing to help, it was a real gift to the community.” ■

KEY FINDINGS: APPLETON COLLABORATIVE NUTRITION PROJECT

Garbage Analysis (Garbology)

- Food items purchased at school tend to be more fully consumed than an item brought from home
- Fruits and vegetables have lower consumption rates than other food items

Social Influences on Nutrition

- Family was the biggest influence on students’ nutritional behavior
- Coaches and athletes are role models for students
- Students value their autonomy and feel they should be trusted to make their own decisions about what they eat

Diet and Nutritional Status

- Kids aren’t getting enough fiber, their sodium intake is too high, and too many calories are coming in the form of sugar

Nutritional Culture

- Early nutrition programming had a lasting effect on the way students think about food and nutrition