Want kids to eat healthier? Don't tell them, show them

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If given the choice between eating a salad loaded with veggies or a burger and fries, most kids—and for that matter, most adults—would likely pick the less healthful option. But instead of telling kids to eat more fruits and vegetables, Iowa State University researchers found the trick may be to convince them visually.

Laura Smarandescu, an assistant professor of marketing, and Brian Mennecke, an associate professor of information systems, did just that using a digital display featuring a rotating image of a salad along with menu information. They found salad consumption among kids increased as much as 90 percent when a digital display showed a rotating image of the salad. The results are from a field study conducted in July at the YMCA of Greater Des Moines camp in Boone. The camp is for children with diabetes, ages 6-12.

Campers were offered a nutritionally balanced daily menu, which included foods like tacos, sloppy joes, fruits and vegetables and had the additional option of a salad bar. The kitchen staff weighed the salad bar items before and after each meal to calculate how much was consumed. The digital sign had the greatest appeal among boys at the camp, who were 50 to 70 percent more likely to serve themselves lettuce, cucumbers, tomatoes and carrots when the digital display showcased a vivid picture of a salad.

"The cool effect that we found and didn't expect was with boys," Smarandescu said. "It makes sense because boys like video games and
interact more with technology. We noticed many boys stopping to look at the display and their behavior seemed to be more influenced by the presence of the display."

The results from the field study mirror what Smarandescu and Mennecke discovered in the lab. When given the choice between a still photo of a particular food or a rotating image, participants in the lab opted for the rotating menu item. Mennecke said the studies show the influence of environmental cues and images on consumer behavior.

"The more vivid the image, in terms of movement, color and accuracy of representation, the more realistic, the more it's going to stimulate your response to it," Mennecke said. "You respond to the image on the display like you would respond to a plate in front of you. If you're hungry you respond by saying, 'I'll have what's in that picture.'"

**Taking the technology to the lunchroom**

Fast food companies, like Burger King, have embraced the technology by using digital menu boards to feature new items or target key demographics. ISU researchers believe the displays could have a positive impact in school cafeterias and influence students to make better choices. The concept is similar to the "Smarter Lunchrooms Movement" developed by Brian Wansink at Cornell University, who has partnered with Smarandescu and Mennecke on their project.

By displaying nutritious foods and drinks in a way that makes them more accessible and attractive in the lunchroom, Wansink has found students greatly increase their choice for more healthful options. Iowa State researchers believe a digital display can motivate students to make better choices in the same way.

"We're hoping that these displays – a small, low-cost intervention –
could lead to large-scale behavior changes," Smarandescu said. "Students will feel like they made the decision themselves as opposed to being told to take the healthier option."

Ann Wolf, executive director of the diabetes Camp Hertko Hollow, who worked with researchers on the field study, is interested in adding a permanent digital display for next summer's camp. Not only do campers relate to the technology, but Wolf said it reinforces a lesson they hope to teach campers.

"Children need to make healthy choices," Wolf said. "We try to educate our children to eat well and manage their diabetes to live a long and healthy life."

**Using digital displays to boost sales**

Targeting kids at camp or consumers at the point of purchase can have a powerful effect, Smarandescu said. If people are hungry and the digital display is right in front of them, research suggests the display will have more impact than a traditional advertisement. The more detail incorporated into the display, the better.

"A lot of times these videos are very vivid and they look very good. Sometimes they zoom in on the food and just by having that fine detail they make the food look better," Smarandescu said. "If you can't see what an item looks like you have more uncertainty in a way. By seeing a picture of an item that looks good, that will likely influence choice."

To test this, researchers plan to use a digital display to feature daily menu items at restaurants and determine the effectiveness by tracking sales. They also want to determine the importance of content. Just because a display is there for consumers to see, doesn't mean they are tuned in.
"People will ignore a sign that they see every day if the content doesn't change," Mennecke said. "That's the challenge – getting the imagery and making it look nice and having varied content. That's not a trivial issue; you have to worry about the content and be creative. This is the hard part of using digital signage."

Provided by Iowa State University


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