



HELPING YOUTH FIND FUN IN FITNESS

PRESIDENT OBAMA LAUDS INVENTION OF CAL POLY ALUMNA NICOLE GUTHRIE



BY STACIA MOMBURG

WHEN PRESIDENT BARACK OBAMA lauded Redwood City nonprofit HopeLab this summer for its efforts to help children get fit, he shined a spotlight on the work of Cal Poly alumna Nicole Guthrie.

The president called HopeLab a model of social innovation at a press conference. And he singled out HopeLab's creation of the gDitty physical activity monitor and online rewards program conceived by Guthrie and designed to get kids up and moving.

HopeLab uses research to develop innovative solutions to improve the health and quality of life of children with chronic illness. The company, which launched in 2001, focuses on cancer, obesity, sickle cell disease, major depressive disorder, and autism.

Guthrie's boss asked her in 2007 to explore research tools to measure physical activity as HopeLab began to think of ways to get 10- to 14-year-olds (or tweens) to develop lifelong healthy habits related to physical activity that might prevent obesity and related health issues.

She began by researching existing physical activity monitors. The market was flooded with adult monitors that measured activity in sustained workouts, she said. But tweens tend to be active in shorter bursts throughout the day, and many monitors do not capture those brief but often intense spikes in activity.

HopeLab developed a prototype activity monitor specifically calibrated to measure a tween's physical activity and that produced clear data. But Guthrie faced the additional challenge of finding a way to make an activity monitor interesting to youngsters.

Initially, she considered the idea of a monitor that played music, after noticing how many teens had mp3 players. But market research told HopeLab that there were too many established music players out there.

"So we had to come up with another idea," Guthrie said. "That's when the Web-based rewards program was developed."

Users upload recorded data of their physical activity to the gDitty Web site, where they can customize a personal profile page with an avatar. They earn and accumulate points for varied levels of activity and receive incentives such as gift cards to retail stores or online shopping sites, or they can choose to donate to a cause.

A six-week study of 182 middle-schoolers was completed in June 2009. Users were placed in one of three conditions to earn points: use the gDitty with access to the online rewards, use the gDitty only, or use gDitty with Dance Dance Revolution (a video game that promotes activity).

"We used Dance Dance Revolution," Guthrie said, "so we

could compare the gDitty with a product known to motivate physical activity in a fun, engaging way."

Results from the study were clear – tweens with access to the gDitty Web site recorded 30 percent more moderate to vigorous physical active than those that didn't have access to the site.

Guthrie and HopeLab will now conduct a longer, larger-scale study to figure out how to best motivate kids to participate and at the same time develop a cost-effective product.

The 12-week study, underway now, will determine what best motivates tweens. One arm of the study relies on self motivation, encouraging users to beat their personal best scores. Another group receives random bonuses on any given day. At any time, any user might earn more points than they normally do. A third group of users will have access only to "virtual" rewards, such as the ability to customize their gDitty avatar and profile page, rather than gift cards.

Still considered in the early phases of development, gDitty holds the potential to help children live healthier lives.

Promoting health has long been the aim of Guthrie's work. She worked as an intern on the Women's Health Initiative at Stanford University in 1995 and then did research on prevention of heart disease through nutrition (work that paralleled her Cal Poly senior project).

She then pursued a master's degree in nutrition, with a focus on preventive health, at UC Davis. After earning that degree, she went on to UC San Francisco to work on a study of how soy affects breast density and the early detection of breast cancer in pre-menopausal women.

Guthrie said her experience at Cal Poly helped her explore what she found interesting and go after it.

"The most important thing Cal Poly taught me is that it's okay to be curious and ask questions," she said. "That experience is carried over in my work. It's my passion.

"I'm lucky enough to work for HopeLab, which allows me to explore and try new things. If an idea doesn't work out, I'm allowed to try something different. I love that."

