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MBA Students Develop New Product To Promote Oral Hygiene In Children

UNIVERSITY PARK, PA -- After a semester of exposure to the tools and processes of new product development, a group of Penn State Smeal College MBA students put their classroom knowledge to use by developing a new product of their own. Their concept for an innovative electronic toothbrush for children, which was created during the 2002-03 academic year, has entered a key phase in its evolution just as the 2003-04 year is set to begin.

Working with Penn State's Intellectual Property Office, MBA students Ian Almeida, John Romano, Esther Scannell, and Alex Shtaerman, along with Min Ding, assistant professor of marketing, recently filed a provisional patent application with the U.S. Patent and Trademark Office for their interactive toothbrush game.

The product was inspired by research data showing that most adults spend less than three minutes brushing their teeth per day, while dentists recommend three daily brushing sessions of three minutes each to ensure proper oral hygiene. It's even more difficult to motivate children to brush for the necessary length of time.

"It's been proven that children are easily bored by tooth brushing and tend to concentrate their brushing on only the few front most teeth without some inspiration to do a more thorough job," said Ding, instructor for the Smeal College's new product development course. "Our MBA students tackled the problem by coming up with a way to make brushing more interesting for kids."

The interactive toothbrush game aims to turn the everyday task of brushing one's teeth into a fun and exciting game by presenting users with various game tasks, such as navigating a maze depicted on the product console. The only way to successfully complete the task is to employ correct brushing techniques. The user accrues points based on the effectiveness of meeting the brushing objectives disguised by the game formats.

The students began the project while enrolled in Ding's new product development course during the fall 2002 semester and then chose to continue working with him outside of the classroom in spring 2003. The team later sought technical assistance from Lynn Carpenter, associate professor of electrical engineering at Penn State, whose name also appears on the patent application.

"Our MBA program strives to provide students with real-world opportunities at every turn," Ding added. "The students identified a real problem that consumers face and developed a product to fill that void. In light of the current job market for MBA students, I think it's refreshing when students explore alternative career paths outside of the traditional corporate structure."

The team is now actively seeking a corporate sponsor or sponsors interested in the invention and in licensing it. With corporate financial support secured, a working prototype will be developed, followed by an application for a full patent, which is a precursor to the product actually coming to market.

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