

# UT multimedia program increases middle school interest in science

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Middle school students who were part of a unique science learning program developed by The University of Texas School of Public Health showed significant increases in interest and achievement scores compared to other students, a recent study found.

Results from the study are published in the June issue of the Association of American Medical Colleges' *Academic Medicine*.

The program, HEADS UP (Health Education and Discovering Science while Unlocking Potential), presents key science information through lessons and vignettes of science experts from The University of Texas Health Science Center at Houston. It was developed by Nancy Murray, Dr.P.H., assistant professor of behavioral sciences at the UT [School](#) of Public Health.

"HEADS UP is designed to enhance middle school students' interest in science and ultimately lead to more minority students pursuing health careers," said Murray. "Colleges in the United States are no longer graduating enough students with science majors to meet the demand for scientists who can assume leadership roles in the science professions. We believe middle school may be the last chance to pique student interest in science and prepare them to pursue a science-related career."

Researchers followed students from fifth to eighth grade and found a 7.2 percent increase in Stanford 10 Achievement scores for students who participated in the HEADS UP program compared to students of similar

background who did not. Stanford Achievement Tests are one of the leading standardized tests used in school districts throughout the United States to measure academic knowledge of children from kindergarten through high school.

Students from the HEADS UP group also had a nine-point gain in test score rankings. Student interest, confidence and self-efficacy in science also increased when using HEADS UP materials, the study found.

Murray hopes the program fosters more interest in science among minority students, identified in the study as being underrepresented in science, technology, engineering and math (STEM) courses and more likely to change their major or drop out of school. In 2004, according to the National Center for Education Statistics, 18.3 percent of STEM degrees were awarded to Blacks, 15.9 percent were awarded to Hispanics and 17.3 percent were awarded to American Indians/Alaska Natives. Asian/Pacific Islanders were awarded 30.5 percent of STEM degrees.

Through multimedia modules, HEADS UP teaches lessons on health topics such as genetics, the nervous system, nutrition, diabetes and cardiovascular disease. [Students](#) are also exposed to video interviews of science professionals discussing various science- and health-related career opportunities. The modules are aligned with Texas Essential Knowledge and Skills and National Science Education Standards. Modules are produced through a collaboration of The University of Texas Health Science Center at Houston (UTHSC-H) and numerous partners. HEADS UP was recently awarded an Award of Merit from the Accolade Competition for the educational video, "The Immune System and Infectious Diseases."

Source: University of Texas Health [Science](#) Center at Houston ([news](#) : [web](#))

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