Could sing-a-long science be the key to good grades?

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Does "edutainment" such as content-rich music videos have any place in the rapidly changing landscape of science education? A new study indicates that students can indeed learn serious science content from such videos.

The study, titled 'Leveraging the power of music to improve science education' and published by the *International Journal of Science Education*, examined over 1,000 students in a three-part experiment, comparing learners' understanding and engagement in response to 24 musical and non-musical science videos.

The central findings were that (1) across ages and genders, K-16 students who viewed music videos improved their scores on quizzes about content covered in the videos, and (2) students preferred music videos to non-musical videos covering equivalent content. Additionally, the results hinted that videos with music might lead to superior long-term retention of the content.

"We tested most of these students outside of their normal classrooms," commented lead author Greg Crowther, Ph.D., a lecturer at the University of Washington. "The students were not forced by their teachers to watch these videos, and they didn't have the spectre of a low course grade hanging over their heads. Yet they clearly absorbed important information, which highlights the great potential of music to deliver key content in an appealing package."

The study was inspired by the classroom experiences of Crowther and co-author Tom McFadden, who teaches science at the Nueva School in California. "Tom and I, along with many others, write songs for and with our students, and we've had a lot of fun doing that," said Crowther. "But rather than just assuming that this works, we wanted to see whether we could document learning gains in an objective way."

The findings of this study have implications for teacher practitioners, policy-makers and researchers who are looking for innovative ways to improve science education. "Music will always be a supplement to, rather than a substitute for, more traditional forms of teaching," said Crowther. "But teachers who want to connect with their students through music now have some additional data on their side."

More information: Gregory J. Crowther et al. Leveraging the power of music to improve science education, *International Journal of Science Education* (2016). DOI: 10.1080/09500693.2015.1126001

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