

IMPACT

University of Idaho
Extension

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Music Positively Affects Teaching Food Safety to High School Students

The Situation

Food safety education of food service workers is an important and challenging task. To protect public health, Idaho requires these workers acquire appropriate food safety knowledge. The goal of food safety education is that food handlers will implement their knowledge to reduce the risk of foodborne illness.

Educational research indicates that music provides a powerful, yet often overlooked, medium for learning and memory. Dr. Carl Winter, Extension Food



Toxicology Specialist at the University of California-Davis, has developed a unique musical approach to food safety education and outreach. He has modified the lyrics of dozens of popular songs, representing a wide range of styles, into

humorous, yet informative, musical parodies appropriate for food safety education.

Our Response



University of Idaho Extension uses a 9-lesson curriculum, *Ready, Set, Food Safe*, for teaching food service food safety to high school students. When students pass the *Ready, Set, Food Safe* certification test with a score of 80% or better, they receive an Idaho

Department of Health and Welfare-approved food safety and sanitation certificate. Use of this curriculum in Idaho has been increasing annually. Since it was introduced in 2002, *Ready, Set, Food Safe* has been taught by 60 teachers or extension educator-teacher teams in 312 Idaho classrooms to 6,984 students; 5,131 students received the food safety and sanitation certificate.



In an effort to enhance the effectiveness of this food safety education program, in 2004-05, nine of Dr. Winter's food safety musical parodies were incorporated into the *Ready, Set, Food Safe* curriculum. To assess effectiveness, seventeen Idaho foods classrooms were assigned (via blocking by size and teacher

experience) to either a Control Group or Music-added Group. Student knowledge, attitudes and behaviors were measured in both groups.

Program Outcomes

Knowledge. The certification test was used to assess student knowledge. Although there was no difference between groups in an overall comparison, when the data were broken out by teacher/educator experience and classroom size, significant differences were observed. In classrooms where the teacher was more experienced with the *Ready, Set, Food Safe* curriculum, students in the Music-added Group scored significantly higher in food safety knowledge than Control Group students. In small

classrooms, students in the Music-added Group also scored significantly higher in food safety knowledge than Control Group students (Table).

Food safety knowledge scores of Control and Music-added Group students (highest possible score = 10)				
Group	Teacher/educator experience		Classroom size	
	More	Less	Large	Small
Control	7.0 a	7.9 a	8.3 a	6.6 a
Music-added	8.7 b	7.2 a	8.1 a	7.9 b

Scores within a column followed by different letter are significantly different P <0.05.

Attitudes. Food safety attitude was assessed by having students read a brief vignette about high school students working in a fast food restaurant, then rate food safety behaviors on a 4-point scale. Again, an overall effect was not observed, but males in the Music-added Group scored higher than males in the Control Group. In classrooms where the teacher was more experienced with the curriculum, students in the Music-added Group scored higher than the Control students.

Behavior. Although we attempted to make observations of student food safety behavior in the high school foods laboratory, the numbers of observations made for the two groups was too varied to allow statistical analysis.

Opinions. Students in the Music-added Group were asked if they liked the songs that were played during the food safety lessons. Forty-seven percent answered “Yes,” 28% said “No” and 26% marked the “No opinion” box. When asked if there were any particular songs they remembered or liked, 92 students identified 113 songs (students could choose more than one song). Songs were listed as few as 4 times or as frequently as 23 times; the most popular song was *Don’t Get Sick Wit It*, a parody of the rap song *Getting’ Jiggy Wit It* by Will Smith.

The nine teachers/educators in the Music-added Group were universally positive about the addition of the songs. They commented that their students liked the songs, even in two classes where a majority of students indicated otherwise. One teacher commented that her students “groaned” when she

played the songs, but “they got into it.” The teachers noted that the songs made a positive contribution to the teaching of the food safety lessons, particularly in making it more enjoyable.

Now Used in Ready, Set Food Safe Revision. When the *Ready, Set Food Safe* curriculum was revised in 2005 to incorporate *Idaho Food Code* updates, the songs were incorporated as a regular part of the curriculum for all teachers and extension educators to use.

The food safety songs can be heard at <http://foodsafety.ucdavis.edu/music.html#songsgeneral>

Details of the study are reported in:
 McCurdy, S.M. Schmiege, C. & Winter, C.K.
 2007. Incorporation of Music in a Food Service Food Safety Curriculum for High School Students, *Food Protection Trends*, Accepted for publication.

For More Information

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