Lawrence M. Lesser* (lesser@utep.edu), UTEP Mathematical Sciences Dept., 500 W. University Avenue, El Paso, TX 79968, and John J. Weber III (john.weber@gpc.edu) and Dennis K. Pearl (dkp13@psu.edu). Using Targeted Fun in College Introductory Statistics to Decrease Anxiety and Increase Learning: Research, Resources, and Recommendations.

In Nov. 2008 Journal of Statistics Education, we give 20 modalities of fun (e.g., humor, songs, cartoons, games) and potential benefits, with songs reviewed in spring 2014 Journal of Mathematics and the Arts and a case study in June 2015 Transformative Dialogues. Our March 2013 Journal of Statistics Education survey of (N=249) college instructors found genders had similar motivations for using fun, but different hesitations and modality preferences. Our NSF-funded (DUE 1140690/1141261/1140592) fall 2013 student-randomized experiment (see www.causeweb.org/ecots/ecots14/32/) investigated if students randomly selected for exposure to fun inserts (e.g., CAUSEweb.org cartoons or songs) in conventional self-contained mini-readings in their LMS (thus removing variable of instructor effect or talent) would experience improved learning (measured by embedded exam questions) or reduced statistics anxiety (by SAM). With songs, students randomized to the fun group correctly answered the embedded questions an average of 50.0% of the time, compared to 42.3% for the other students (p = .04). Use of cartoons and quotes showed no differences between groups on test item performance, anxiety or attitude. Our new NSF grant (DUE 1544237/1544243/1544426) will develop and assess interactive songs. (Received September 18, 2015)