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**Using 'Fun' in the Statistics Classroom:
 Research and Recommendations**

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 Universal Portability of Learning Increased by Fun Teaching

Outline

- Quick overview of types & sources of fun
- Experiencing/critiquing examples of fun-enhanced content
- Creative ways to research this “subjective area” on students, and on faculty
- Best practices for helping teachers try using fun with minimal risk
- Diversity connections
- Future directions, Q&A

Types of Fun Items
 adapted from Lesser & Pearl (2008), Lesser et al. (2013)

suggestions of others?

Cartoons; Comic Strips	Games (Commercial, Cultural, etc.)	Magic	Quotations
Celebration Days	Game Shows	Media Bloopers	Strange News
Clothing	Humor/Jokes	Movies	Striking Examples
Food	Kinesthetic Activity	Music, Raps, Songs	Videos
Fun books in content area	Literature	Poems	Wordplay

considerations for course use of fun Lesser and Pearl (2008)



**CAUSE and EFFECT
OR ASSOCIATION:
YOU BE THE JUDGE.**

- Course goal/concept associated with item
- Where used (e.g., in class, on website)
- What to do/say/ask before using the fun item to “set it up”
- What to do/say/ask after using item

SURVEY 249 (66%) of 380 attendees participated at USCOTS 2011

Survey from the CAUSE Study of Fun Cluster Group
Please respond to this anonymous survey as you reflect on the last time you taught an introductory statistics course. Put the completed survey in the box located on the registration table (on Thursday) or at USCOTS Central by 4:30 pm on Friday to receive a “Study of Fun” notepad. When you return your survey, you can also drop your name in the bowl for a chance to win a Book Cafe e-Reader. Stop by our table at the Posters and Beyond session on Saturday at 9:30 a.m. and you can see the aggregate survey results and demonstrations of Statistics Fun!

BACKGROUND INFORMATION (fill in the blank or check your responses)
of years teaching statistics _____ typical class size _____ Gender: Male Female
Institution: high school 2-yr college 4-yr college research institution other _____

USAGE
Check each modality of fun that you have used in your statistics teaching:
 Poems/Songs Cartoons Games Jokes/Humor Other: _____
Check each modality of fun that you have NOT used, but are open to using:
 Poems/Songs Cartoons Games Jokes/Humor Other: _____
Check each modality of fun that you are not open to using:
 Poems/Songs Cartoons Games Jokes/Humor Other: _____

MOTIVATIONS
Which of the following are your main motivations for using (or considering the use of) fun in your statistics teaching? (check all that apply)
 increases student learning/interest reduces student anxiety
 helps my popularity/ratings with students builds classroom community
 makes teaching more enjoyable for me increases student engagement
 other (please specify): _____

HESITATIONS
Which of the following are your main hesitations about using fun in your statistics teaching? (check all that apply)
 no skills/talent can't quickly find good examples
 weak evidence of helping student learning uses too much class time
 need to be perceived as serious by students size of class
 need to be perceived as serious by colleagues/supervisor
 incompatibility with students' cultures
 other (please specify): _____

CAUSEWEB.ORG
Have you used items from the Fun resources collection at www.causeweb.org/resources/fun/?
 many times a few times once or twice no, but I've browsed
 no, and I haven't browsed no, and I didn't know about the collection
I am open to being interviewed by phone about this topic: no yes (print e-mail) _____

THANK YOU!

Some tips/resources

- Low risk - high risk continuum (Berk) between and within modality types
- Ziv suggests 3-4 times per class period
- Recommendations for student-generated fun (vs. instructor-generated)
- Network of practitioners to pool ideas?
- Some sources of fun:
 - <http://my.ilstu.edu/~gcramsey/Gallery.html>
 - <http://web.grinnell.edu/individuals/kuipers/stat2labs/Labs.html>
 - <https://causeweb.org/resources/fun/>
 - <http://singaboutscience.org>

Key References

MY JOKES/STEREOTYPES OP-ED: April 2014 *Mathematics Teacher*, pp. 568-71.

RESEARCH ON HUMOR/FUN IN STATISTICS: collection of 500+ items: <https://causeweb.org/resources/fun/>
Lesser, Pearl, Reyes, Weber (2014). causeweb.org/ecots/ecots14/32/

Lesser, Wall, Carver, Pearl, Martin, Kuiper, Posner, Erickson, Liao, Albert, Weber (2013). Using fun in the statistics classroom: An exploratory study of college instructors' hesitations and motivations. *Journal of Statistics Education*, 21(1), 1-33. <http://www.amstat.org/publications/jse/v21n1/lesser.pdf> (also, see causeweb.org/webinar/jse/2013-08/)

Lesser & Pearl (2008). Functional fun in statistics teaching: Resources, research, and recommendations. *Journal of Statistics Education*, 16(3), 1-11. <http://www.amstat.org/publications/jse/v16n3/lesser.pdf>

RESEARCH ON HUMOR IN EDUCATION:

Banas, J. A., Dunbar, N., Rodriguez, D., & Liu, S.-J. (2011). A Review of Humor in Educational Settings: Four Decades of Research. *Communication Education*, 60(1), 115-144.

AN INSPIRATION FOR THE EXPERIMENTAL DESIGN:

Garner, R. L. (2006). Humor in pedagogy: How ha-ha can lead to aha! *College Teaching*, 54(1), 177-180.

INSTRUMENTS (SAM and SATS):

Earp, M.A. (2007). *Development and validation of the Statistics Anxiety Measure*. University of Denver. <http://ase-web.org/documents/dissertations/07.Earp.Dissertation.pdf>

Schau, C., Stevens, J., Dauphinee, T. L., & Del Vecchio, A. (1995). The development and validation of the Survey of Attitudes Toward Statistics. *Educational and Psychological Measurement*, 55(5), 868-875.