

How laughing leads to learning

Research suggests that humor produces psychological and physiological benefits that help students learn.

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As a self-described “math phobic,” the last thing Johns Hopkins University nursing student Erin Wright wanted to do last spring was enroll in biostatistics, a required course in her bachelor’s program.

Yet by the end of the semester not only did her anxiety subside, but she felt confident applying the basic tenets of statistics to analyze medical research.

What sparked the metamorphosis? She says it was her professor, Ron Berk, PhD, who interjected levity into the class and made number crunching fun.

In his course, Berk stages lavish, over-the-top musical skits—starring himself and students—that draw from pop culture. In one spoof, “All That Jazz” blares as several students wearing white gloves saunter into the room. Their hands flare and bodies contort into isolated movements in time with the music. Suddenly the music and dancers stop. Abruptly the theme from “Rocky,” blasts out of the speakers, and a horde of students in hooded sweatshirts barge into the classroom, throwing punches in the air. Students gawk and laugh at the spectacle, while Berk illustrates the concept of statistical sampling designs by discussing how students were selected for the two groups and detaching the similarities and differences in the group’s compositions.

The key to his teaching style, he says, is using humor to enhance otherwise dull statistical methodology by tapping into students’ multiple intelligences and learning styles in a way that forces them to think in divergent and real-life ways.

“When I enter the classroom, I want to change the entire atmosphere into one where everyone has fun with the material—even if the material is complex,” says Berk, author of “Professors are from Mars, Students are from Snickers” (Stylus Publishing, 2003) and “Humor as an Instructional Defibrillator: Evidence-Based Techniques in Teaching and Assessment” (Stylus Publishing, 2002). “It helps relieve fear and reduce anxiety.”

But it’s not all fun and games, cautions Berk, who suggests that to be effective, comedy must complement—and not distract from—course material. In fact, instructors who use distracting or inappropriate humor can actually interfere with students’ learning, suggests research by interpersonal communications researcher Melissa Bekelja Wanzer, EdD, of Canisius College.

However, a growing body of research suggests that, when used effectively, classroom comedy can improve student performance by reducing anxiety, boosting participation and increasing students’ motivation to focus on the material. Moreover, the benefits might not be limited to students: Research suggests that students rate professors who make learning fun significantly higher than others.

Engaging students

One study pointing to humor’s benefits appeared this year in *College Teaching* (Vo. 54, No. 1, pages 177–180). In it, Sam Houston State University psychologist Randy Garner, PhD, found that students were more likely to recall a statistics lecture when it was interjected

with jokes about relevant topics. For example, in a lecture segment on reporting research findings, Garner used a metaphorical joke about a planned escape by one of two prisoners in a desert jail. One prisoner tries to escape after unsuccessfully persuading the other to go with him, only learning—after breaking out—that escape is futile as there is nothing but sand for hundreds of miles. After he's captured and returned to his cell, he tells the story of failed escape to the other prisoner who subsequently shares that he tried to escape a few years earlier. Incredulous, the first prisoner exclaimed, "You knew! Why didn't you tell me?" whereupon the other remarks, "Silly man, you should know that no one reports negative results."

"Well-planned, appropriate, contextual humor can help students ingrain information," explains Garner, who in his introduction to psychology course uses TV programs like the audition episodes from "American Idol" to demonstrate such psychological concepts as self-handicapping and selection bias.

Humor can also pique students' interest outside the classroom. In a 2005 article published in *Teaching of Psychology* (Vol. 32, No. 4, pages 246–248) Ohio University–Zanesville psychology professors Mark Shatz, PhD, and Frank LoSchiavo, PhD, found that when a professor inserted self-deprecating jokes, psychology-related cartoons and top 10 lists in an online introductory psychology course, their students more often logged on to the online system Blackboard and were more likely to enjoy the class.

"Professors' jobs are to educate, not to entertain," says Shatz. "But if humor can make the learning process more enjoyable, then I think everybody benefits as a result."

And the benefits may not be limited to academic performance, according to Berk in "Humor as an Instructional Defibrillator." In the book, he suggests that humor's primary psychological role is as an emotional response or buffer to relieve physical stress. Moreover, laughter has been shown to stimulate a physiological effect that decreases stress hormones such as serum cortisol, dopac and epinephrine.

In an upcoming article in *Humor: International Journal of Humor Research*, Berk found that during students' most anxious times, such as prior to or during an exam, humorous directions or test items may relieve students' tension and help them perform better.

"Humor can transform the testing situation from formal and stodgy to relaxed and comfortable," he says.

Droll, but not overdone

In addition to the psychological and physiological benefits of creating a fun, relaxed classroom, students often perceive that they learn more with droll professors, according to a 1999 *Communication Education* (Vol. 48, No. 1, pages 48–62) article by Wanzer.

Wanzer also found that students perceived witty instructors as being more competent communicators and more responsive to students' needs than dry instructors. However, Wanzer also found limits to humor.

"Students don't necessarily want Jerry Seinfeld as their instructor," she says. "They want appropriate humor that is relevant, lightens the mood and makes the information memorable."

So how do you draw the line between being educational and being distracting?

By focusing on learning first, says communications researcher Jennings Bryant, PhD, of the Institute for Communications Research at the University of Alabama. Bryant has worked as a script consultant for "Sesame Street" and "The Electric Company" and has studied classroom humor.

In a 22-study research project from 1969 to 2000 that examines the effectiveness of humor within education, Bryant and his colleague Dolf Zillmann, PhD, of Indiana University, found that although humor can make the learning experience more pleasant, it must be attuned to the audience's knowledge to enhance students' attention, improve the classroom environment or lower students' test anxieties.

Also, humor can be overdone to the point that students are so busy awaiting the next gag that they miss the teacher's message, says Bryant.

As such, in the first few years of "Sesame Street," Bryant recommended that the writers intersperse the humor throughout the program to tie in the lesson and keep children engaged. The key to the writers crafting a good joke, Bryant adds, is their ability to see the joke through the eyes of the viewer or student.

Berk has reached similar conclusions from his own experience.

"Most professors think like professors, and you can't do that," Berk says. "What I do and how I teach is all about the students," he says. "It has nothing to do with me. I'm tapping into *their* multiple intelligence needs and *their* culture so that *they* can understand the material in *their* terms."