

# Inspiring young researchers

Psychology science fairs are on the rise —  
and a great way to nurture new talent.

BY JEN USCHER

**A**t a friend's birthday dinner, high school senior Michelle Hackman noticed a lull in the conversation and realized that all her companions were texting one another rather than talking. It disturbed her and sparked a research question to tackle for her science research class: Do teenagers grow anxious when they are separated from their cell phones?

Hackman, a student at John L. Miller Great Neck North High School in Long Island, N.Y., was surprised and excited to learn that her hypothesis was wrong. "The kids in my study who were allowed to keep their phones actually had *higher* levels of anxiety — it's almost like the phone is a stimulant," she says.



Presenting her research at the fair: Caroline Seats from Roland Park County School in Baltimore.



Students participate in the science fair at St. Paul's School for girls in Brooklandville, Md.

Her project won second place and a \$75,000 college scholarship in the national Intel Science Talent Search, an elite research competition for high school seniors. The competition also honed her public speaking skills and gave her experience with answering science questions off the cuff.

The best part, she says, was meeting the seasoned scientists involved in the contest. "It's like a glimpse into my own future," says Hackman, who hopes to pursue a career as a research psychologist.

Students have been entering psychology research projects in local, regional and national science fairs for years. But these days, high school psychology teachers throughout the country have started fairs and conventions exclusively for psychology research, in part because psychological science is so interesting to students and the public and also due to APA's support of such fairs. APA sees science fairs as a way for the field to earn psychology more recognition as a core science, technology, engineering and mathematics (STEM) discipline, says Robin Hailstorks, PhD, associate executive director of APA's Education Directorate.

"When students present scientifically sound psychology research projects at science fairs, it helps students, teachers and the public understand psychology as a science," she says.

### Best practices

To boost the number of psychology projects in traditional science fairs and competitions, APA's Education Directorate published a manual for high school teachers to guide students who are conducting original psychological research to enter in science fairs ([www.apa.org/education/k12/science-fair-manual.pdf](http://www.apa.org/education/k12/science-fair-manual.pdf)).

APA also provides judges to participate in the annual Intel

International Science and Engineering Fair (ISEF) and awards prizes to recognize seven psychology projects. In addition, APA sends an award that the judges can give for the top psychology project at each of the 443 local and regional science fairs affiliated with the Intel ISEF.

"We have kids that are doing really great, rigorous psychological research, and we want to give them a venue to present their projects where that kind of work is the focus and the judges are experts in psychology," says Allyson Weseley, EdD, who coordinates secondary research at Roslyn High School in Roslyn Heights, N.Y.

She recognized that a lot of students in her local area take psychology classes and could use a forum to present their original research, so she teamed with three teachers from nearby schools to launch the Long Island High School Psychology Fair in 2009, held annually at Roslyn High School ([www.longislandpsychologyfair.com](http://www.longislandpsychologyfair.com)). Any high school student on Long Island with a psychology research project can apply to compete in the event. Each participating student gives a 10-minute PowerPoint presentation to a panel of judges and an audience of competitors. Winning entries in this year's fair covered such topics as the factors related to adolescent digital music piracy and the effect of student ethnicity on teacher perceptions and grades. Many students opt to enter their projects in other local or national competitions at the same time. Hackman, for example, received an honorable mention in this year's fair for the study she entered in the Intel Science Talent Search.

The judges for the competition are local psychology professors, high school psychology teachers and graduates of local high schools who are studying psychology in college or graduate school. Weseley says one of her goals for the fair

is to provide students with meaningful feedback on their projects — something they don't always receive at other science competitions — so the judges fill out comment sheets that the presenters later get to read.

At St. Paul's School for Girls in Brooklandville, Md., psychology teacher Jeanne Blakeslee has similar goals with her psychology convention. Most of all, she wants her students to apply what they're learning in class to real-life problems. Seniors in her Advanced Placement (AP) psychology class and from five other local schools choose a topic related to the theme "How to Make the World a Better Place for Adolescents." They do a literature review and make a 40-minute presentation on their research at the AP Psychology Convention, held each year in April. This year's projects included ones on how to create a better atmosphere in schools and society for transgender teens and the impact of different parenting styles on adolescent behavior. "At the convention, these kids act like professional psychologists," says Blakeslee, chair of APA's Teachers of Psychology in Secondary Schools.

In Bozeman, Mont., the annual AP psychology fair at Bozeman High School is so popular that it attracts 1,500 guests. Like Blakeslee, AP psychology teacher Joyce Hannula requires her students to enter a project in an annual psychology fair. During the all-day event, her students set up booths in the school's gym. Guests who visit their booths are given a hands-on activity that demonstrates a psychological concept, such as short-term memory, operant conditioning or reaction time.

"The projects are amazing — complex and very involving," says Hannula. For example, some students who wanted to demonstrate the concept of memory construction set up a maze. After visitors exited the maze, they were asked a series of questions to determine whether items they believed they saw displayed along the walls were actually present.

### A launching pad

The psychology fair experience seems to pay off for students and the psychology field. When Weseley surveyed teachers at schools that participated in the Long Island High School Psychology Fair during the past three years, she found that more than two-thirds of the students who competed in the fair take psychology classes when they head to college. More than a third are involved in psychology research.

Hannula says she has also seen how presenting in a psychology fair can make a lasting impression on a student. "I've seen that it helps them understand what research really involves and they become excited about it. In some cases, they

go on to pursue psychology as a career," she says. "The results are impressive in terms of how it motivates the students."

One such student is Ben Basile. At the Bozeman High School Psychology Fair 14 years ago, he played a clip from the movie "Goodfellas" as part of a demonstration on how exposure to violent movie scenes affect heart rate and pulse. "Hands-on,



High school seniors Rabia Ahmad, Sina Gebre-ab and Kayla Alevizatos.

interactive learning experiences like this inspired me to pursue a career in psychology," says Basile, now a doctoral student in the neuroscience and animal behavior program in the psychology department at Emory University.

Meghan Smith, who graduated from St. Paul's School for Girls five years ago, says she knew she wanted to continue studying psychology in college after she presented on the history and neurobiological basis of shyness at the AP Psychology Convention. Later, while working on her undergraduate honors thesis at the University of Virginia, she appreciated that the convention prepared her to do college-level research. Starting this fall, she'll be applying those skills in the clinical child psychology doctoral program at Virginia Commonwealth University.

"The convention really opened my eyes to how exciting it is to dig into psychological concepts," she says. ■

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Want to set up your own psychology science fair? For ideas, go to the APA's Education Directorate's Science Fairs page at [www.apa.org/education/k12/science-fairs.aspx](http://www.apa.org/education/k12/science-fairs.aspx).