



BRAIN GAMES

at Southwestern
Adventist University

BY HOYET TAYLOR

Seven years ago, the science faculty at Southwestern Adventist University in Keene, Texas, met to discuss new ways of recruiting “top notch” science- and math-oriented students to the school. Southwestern has historically produced quality Christian scientists, teachers, and health-care professionals, but the committee hoped, with the creation of Brain Games, to create a tool by which we could better recruit the most academically minded academy students to our campus by giving them a vision of what a Christian scientist’s career might look like.

At the same time, the project would involve the students in educational and laboratory projects that they were unlikely to experience in a typical high school setting. The goals were to have SWAU’s science faculty members create programming for attendees that would focus on presenting excellent quality scientists who model an active Christian faith, having visiting students and faculty participate in an academically challenging and spiritual environment, and engaging students in hands-on technical laboratory experience. The planners sought to give to these students a real glimpse of the educational and spiritual product that Southwestern has to offer.

Goals of the Program

As Brain Games continued to develop, the planners incorporated several key ideas that have since become the goals of each year’s programming:

- Make the educational experience challenging and as representative of our university as possible. Entertainment is not the goal.

- Shape the spiritual programming to fit the educational experience, and portray Christians in high tech, challenging careers.

- Give the students hands-on experience with technology, guided by professional educators.

- Help the students to draw conclusions based upon real data collected.

- Teach the students to work cooperatively in as near a real-world situation as we can simulate.

- Keep groups small. Each participating school is encouraged to bring no more than three to five of their top students.

- Provide monies (to be awarded to the participating academies by our Recruiting Department) for use in their science and math departments.

- Create an opportunity for academy and college faculty members to fellowship and share ideas.

Administrative and Academic Support

Developing a program like this requires that the university staff and faculty all buy into its purpose and vision. It’s impossible to put together a recruiting program of this magnitude without support from administration, recruiting, various departmental resources, and church and community volunteers. Food, lodging, speakers, awards, physical and spatial resources all have to be considered. Cooperation, collaboration, and leadership are the keys to making Brain Games a success.



During the 2007 Southwestern Adventist University Brain Games, which immersed participants in forensic science, students extracted evidence from under the fingernails of potential perpetrators. Samples were later compared with those taken at the “crime scene.”

Choosing the Theme

At the beginning of each year's planning session, the Brain Games committee members choose an exciting, technical theme related to a real-world occupation. Previous topics include marine biology, computer science, robotics, emergency medicine, and criminal science investigation. Using the theme, programming is developed to meet the academic and spiritual goals. Often the theme will revolve around a dynamic Christian speaker who is available in the local area or through our network within the church, and then the programming will be planned around the theme.

The Weekend Schedule

Typically, the program begins on a Thursday evening after supper. Participants are welcomed, told what to expect, and then immersed into a hands-on activity related to the theme. For example, the 2007 theme was criminal

Brain Games Topics

- 2004 - Marine Biology
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- 2005 - Robotics and Church/Science Conflicts
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- 2006 - Robotics and Astronomy
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- 2007 - Forensic Science
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- 2008 - Emergency Response
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- 2009 - No games held
-
- 2010 - Epidemiology

science investigation; therefore, students were asked to participate in the collection of evidence left after a mock crime was committed (*The Great Donut Theft of 2007*). This was followed by a video presentation on criminal science investigation.

On the following day, students participated in bite, fingerprint, ink, substance, and blood analysis to determine who the perpetrator(s) may have been. This analysis included the making of bite casts, lifting and comparing fingerprint characteristics, paper chromatography, organic chemistry, blood typing, Barr-body examination (to determine the sex of the perpetrator), and PCR amplification and electrophoresis (to determine the identity

of the perpetrator from the DNA collected at the crime scene). This took quite a bit of planning and coordination between staff and faculty members, who also taught their normal class loads. By late Friday afternoon, the academy students were ready to





Top: The 2007 top “Mathletic” competitors work out their answers.

Right: Criminal investigators show students how to collect fingerprint evidence; student crime-scene investigators (CSIs) process the evidence they found.

Bottom: Participants learn to use proper microbiological lab techniques in growing bacterial samples.



discuss potential scenarios, and make charges against possible perpetrators.

Sabbath Events

Friday evening programming consisted of a special presentation from former SWAU student Donnie Finley, a criminalist from Contra Costa, California. Previous speakers include Steve Arrington (former Cousteau diver), Erwin Sicher (history professor, SWAU), and Larry Turner (physics professor, SWAU). The speakers were carefully selected for their dynamic presentation skills and ability to incorporate faith and Christian service into their chosen career (honorariums and travel expenses are paid through the academic dean's office). These presentations also give opportunity for the college clubs (biology, physical sciences and mathematics) to participate in developing the programming for our academy guests.

On Sabbath, participants are encouraged to attend the university church and Sabbath school. After lunch there is a break, followed by an afternoon presentation by our invited speaker, which is usually more career- or topic-oriented. For example, the 2007 Brain Games Sab-





Pages 34 and 35, clockwise from bottom left: students learn how to process a crime scene and collect evidence; criminal investigators lift fingerprints at the “crime scene”; the “accused” are read their rights; evidence is collected from the “crime scene”; an alleged perpetrator has her “mug shot” taken.



bath afternoon presentation featured the activities of a professional criminalist. Previous afternoon programs dealt with mission service, cosmology, and church/science issues.

Saturday evening events typically include a short vespers program and a wrapping up of Friday’s activities, followed by the much-anticipated *Mathletic Competition* between the best math participants from each participating school. This competition is a double elimination competition, made up of three- to four-member teams. Questions range from algebra to pre-calculus, with a sprinkling of science and math history items. Winning teams take back to their schools a cash prize of \$2,250, to be used for the purchase of new math and science equipment. The competition is both fun and exciting. This event usually concludes the weekend’s activities.

Creating a Ripple Effect

Brain Games seeks to do more than simply attract academically motivated Christian students to technically





Clockwise from top left: During the 2010 Brain Games, “victims” are interviewed to determine both the cause and the source of their infections; samples are taken from individual students to identify potential carriers of the “deadly pathogen”; Dr. Suzanne Phillips (left), SWAU Biology Department chair, helps a student interpret his bacterial culture.



oriented fields of study. The planning committee endeavors to create in young people a vision of themselves as professional applied scientists solving problems and revealing truths that glorify Christ in the workplace. We want young people to know that if they can imagine such a future for themselves and work hard academically, they can enter very rewarding careers, and that Southwestern Adventist University is ready and able to help them achieve these academic goals.

Another goal of the committee is to induce other departments to follow their lead in developing similar recruitment programs whose goals are not merely to entertain, but to send academy students back to their schools with a taste of Christian university life. It is our objective to give potential students a positive and motivating spiritual, social, and academic campus experience so they will have something to talk about when they get home. We want to create a ripple effect.

The 2010 Brain Games was held January 21-23. The

theme was *Outbreak Keene: A Study in Epidemiology*.

Brain Games is open to all North American Division Adventist academies (regardless of union affiliation) and to any local high schools wanting to participate. Reservations are limited: only one sponsor and three to five students (grades 10-12) per school. For information, please contact Tina Bottsford at tinabot@swau.edu or call (800) 433-2240. ✉

This article has been peer reviewed.



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