

NATURALLY OBSESSED: THE MAKING OF A SCIENTIST

Global Nomads Students - World Science Festival Interchange

New York City, May 14, 2009

Program: Webcast discussion on film with main character Robert Townley, filmmakers Dick and Carole Rifkind, and high school students from across the country. Moderated by Grace Lau for Global Nomads Group.

Attendees:

- **Kurt Hahn Expeditionary Learning School, Brooklyn, NY**
- **South Plantation High School, Plantation FL**
- **Westmount Charter, Calgary, Alberta, Canada**

Global Nomads Group in conjunction with the World Science Festival hosted a special videoconference session for high school students in which they engaged in a conversation with cast member Dr. Rob Townley, and directors Dick and Carole Rifkind. The students had all watched the film the day prior.

Natural Obsessions

The GNG's goal in organizing the screening and post-discussion was to give students an idea of the true process of doing science and the chance to imagine themselves as real scientists. Although many students could not see themselves as a future scientists, they had many varied aspirations and walked away feeling inspired by the film's more universal themes, including the virtues of patience and perseverance in achieving any goal, and learning from failure.

A student from Kurt Hahn likened the cast's dedication to pursuing their discoveries to his own determination when it comes to running. "When you get tired you want to stop, but there is something inside of you that keeps you going."

A dancer from South Plantation shared that it's her passion for dance that motivates her, "even when I can't pick up the routine right away." A cheerleader explained that sometimes she falls during certain stunts and becomes discouraged, but "adrenaline keeps me going—plus it's so much fun!"

The Joy of Discovery

Discoveries don't happen everyday. "One or two a lifetime is more than most people get in this world," director Dick Rifkind explained. With that in mind, enjoying the journey *towards* discovery becomes even more vital.

The students gleaned insights from Carole and Dick who shared that the end result isn't the only thing of value, but that "the doing" itself should be enjoyed. They challenged the students to think about how they can make the journey enjoyable, not just the end result.

A student from Kurt Hahn responded that even though science “isn’t my subject,” the movie meant a lot to him because it taught him to never give up. “At the long shot you may have a shot”.

In discussing Gabe’s ultimate decision to leave the doctorate program, many female students shared that they did not see Gabe’s decision as a failure. “It’s about the journey and what she learned about herself.” Another saw that “She found success because she was able to find a job that she really liked. Not many people are able to find that.”

In watching and discussing the film, students became more comfortable with rethinking the concept of failure, in the end agreeing with the filmmakers that “failure isn’t really failure”. “You have to fail before you succeed,” a student from Kurt Hahn shared.

Leaving Your Mark on the World

Rob shared with the students that one of his biggest joys in being a scientist is knowing that by performing “smart” experiments on interesting questions, he has a direct effect on people and their quality of life. He challenged the students to think of ways in which they would leave their mark on the world.

A student at West Mount Charter explained that as chemistry students, her classmates have a lot of opportunities to change the world. Another student shared that she wanted to be a pediatrician to help kids with cancer. “If I can help one child to stay alive, that would be leaving a mark!”

“I want to be a marine biologist and save species from extinction, like the horseshoe crab,” a student from Kurt Hahn shared.

“I would help people figure out that there is more to life than the basic stuff they do everyday.” A student from Plantation High School imagined. “If we study something we really enjoy, we are more likely to change the world,” was another perspective.

“Everyone has changed the world,” a student from West Mount told the participants insightfully. “We did it by coming together today, sharing our ideas, and understanding things from a different viewpoint. Everyday you make your mark on the world.”

Art vs. Science

The students were asked to think about the similarities between science and creating art.

“Art is a way of examining nature and making a clear statement about what you have observed. Science is the same, the method is different, but the results are the same,” Dick Rifkind expressed. Rob asked the students if they felt the film was “more art, or more science?”

Students had differing opinions on this concept. A student at Plantation High School felt that the film was both science and art because “you are creating something new”. A student at Kurt Hahn thought the film was more science because of all the “details” presented about the research process. Another student from Kurt Hahn reflected that art is doing what you love and what inspires you—she found the film to be more of an artistic statement.

What Happened Next?

“Every discovery is the beginning of a new questions,” Rob shared. Many students were fascinated to learn about what happened with Rob’s discovery following the publication of his findings. Questions ranged from, “Where has the experiment progressed since the film?” and “Why do we eat sometimes when we aren’t hungry?” to “How did you balance life in the lab and life at home?”

The students were deeply engaged as Rob explained how the results of his research were used by doctors in Britain and New York to make further discoveries related to the treatment of diabetes and obesity, and used by Dr. Larry Shapiro to write a grant proposal to the National Institute of Health for major funding towards more research.