

The OTS NAPIRE summer undergraduate program at Las Cruces was developed to offer a quality, field-research experience to students from minorities that are under-represented in the scientific disciplines — in this case, Native American and Pacific Islanders. Sponsored by NSF, the NAPIRE (Native Americans and Pacific Islanders Research Experience) program is part of the Louis Stokes Alliance for Minority Participation (LSAMP) and recruits its participants from affiliated universities and colleges.

The program seeks to introduce the LSAMP students to research and the tropics by teaming them with experienced Research Mentors at the Las Cruces Biological station who will guide them during the research design, data collection, analysis, and write up phases. Each student is paired also with a faculty Home Mentor on his or her home campus; this person has the responsibility of guiding the student through the application process and helping the student integrate his or her experience into his or her academic career.

In April, 2010 the nine Home Mentors and eleven Research Mentors arrived in Costa Rica for the OTS NAPIRE 2010 Mentor Workshop. The main objective of OTS was to facilitate communication between Research Mentors, Home Mentors, and NAPIRE students regarding their potential research projects, with consideration of the location and the time constraints of the program. Past experience has shown that when students arrive with a concrete research idea, they tend to make quicker progress towards completion of their research.

The workshop had several goals:

To provide a platform for home and research mentors to discuss the interests, capabilities and any other pertinent information about the NAPIRE students and program.

To acquaint the NAPIRE Home Mentors with the living and working conditions of Las Cruces Biological Station, so they can advise students about, food, sleeping arrangements, topography, laboratory space, and communication capabilities.

To acquaint new Research Mentors with the geographical and ecological potential of Las Cruces and its facilities and enable their guidance of the student research. To develop and discuss research ideas between NAPIRE Home Mentors, Research Mentors and students (virtually).

To provide a platform for experienced LSAMP mentors to discuss the interests, capabilities and any other pertinent information about the NAPIRE target students and program.

To discuss ideas to improve the outreach of the NAPIRE program.

Observations

The group quickly recognized the unique attributes and perceived differences of this group of students as compared to other college students. Some observations included the tendencies of this group to have nontraditional upbringing and may have entered school later, the likelihood that these student are primary caretakers at home, which may make the decision to leave home more difficult, and the need for direct encouragement to increase self esteem.

One mentor offered that he felt it is important to explain to the NAPIRE students that small successes can mean an increase in responsibility, and, with accomplishments, doors are opened back on their home campuses. Two mentors who have experience with NAPIRE students noted that they witnessed a transformation in their students after participating in the NAPIRE program. Their students returned to their home institution with a clearer purpose; an increased self esteem, and a renewed focus on their career goals.

Virtual Communications

Via internet conferencing, Home Mentors and Research Mentors began communicating with students to discuss preparations for the students' arrival in Costa Rica. The conferences between students and mentors were exciting and enjoyed by mentors and students alike. Introductory queries about the students' prior experience, background, support system at home and their potential research interests created a dynamic conversation. The conversations allowed the students to obtain an in depth understanding of the activities they would be doing in Costa Rica and, in three cases, allowed mentors to identify another scientist on their campus to help guide the student's research question.

Workshop Outcomes

At the completion of the workshop, new Research Mentors gained a better understanding of how much effort, physical, mental, or reading time a student might be expected to contribute, while Home Mentors gained a better understanding of the environment, which will increase their ability to advise their students about the conveniences and communication available at Las Cruces. In addition, potential research questions were proposed, considered, modified through contacts begun during the workshop, thus giving the students a more solid basis for identifying research projects.

On the evaluation side, the group proposed new activities which reflected the actual interests of potential NAPIRE students. The workshop also provided the OTS NAPIRE staff with ideas for modernization and increasing relevance of the course and teaching methods, as well as improving recruitment strategies.

Overall, the workshop participants found the experience worthwhile and found the information learned would be valuable for guiding their students.

