



This newsletter presents findings from evaluations conducted in Quarter 2: Research abroad mentor interviews, research abroad students' Intercultural Development Inventory results, and results from the NANOGrav Working Group meeting held at NRAO .

### Research Abroad Mentor Interviews

Five undergraduate students participated in Research Abroad Experiences (RAE) in the summer of 2011.

Location of research abroad institution	# of students	Home institution	Length of RAE	Home advisor attend?
Max Planck Institute of Radio Astronomy, Bonn, Germany	1	Oberlin college, Oberlin OH	2 months	No
Jodrell Bank Center for Astrophysics, Manchester, United Kingdom	2	Franklin & Marshall College, Lancaster, PA	1 month	Yes
Leiden University, Leiden, Netherlands	2	Oberlin college, Oberlin OH	1 month	Yes

### PROJECT GOALS

- Goal 1: Knowledge
- Goal 2: Education
- Goal 3: Partnerships
- Goal 4: Institutional Capacity
- Goal 5: Workforce Development

Max Planck Institute for Radio Astronomy



OBERLIN

The University of Manchester  
Jodrell Bank  
Centre for Astrophysics



FRANKLIN MARSHALL



Universiteit Leiden

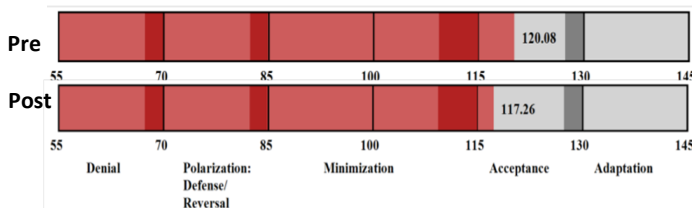
### Positive Outcomes:

- ◆ “The students contributed considerably to the research my institution is conducting. One of the student’s work is being considered to be included in a paper by the EPTA.”
- ◆ The RA “student took a small project off my hands that I had wanted to do for a while and the student progressed significantly in the project.”
- ◆ “My relationship with the PIRE project has strengthened ... I would be happy to host another international PIRE student in the future.
- ◆ Research abroad mentors shared that students:
  - Were sufficiently knowledgeable and skilled to participate in the research
  - Developed better understanding of how specific projects fit in with the larger context
  - Considerably improved their presentation skills, research knowledge and research skills during the RAE
  - Had sufficient local cultural knowledge to function well.

**The Intercultural Development Inventory (IDI)** is a statistically reliable, cross-culturally valid measure designed to assess progress made towards achievement of intercultural competence. Participants are scored on **Perceived Orientation (PO)** - how they rate their level of intercultural competence and **Developmental Orientation (DO)** - actual level of intercultural competence. **PO scores were higher than DO scores.**

### Perceived Orientation (PO)

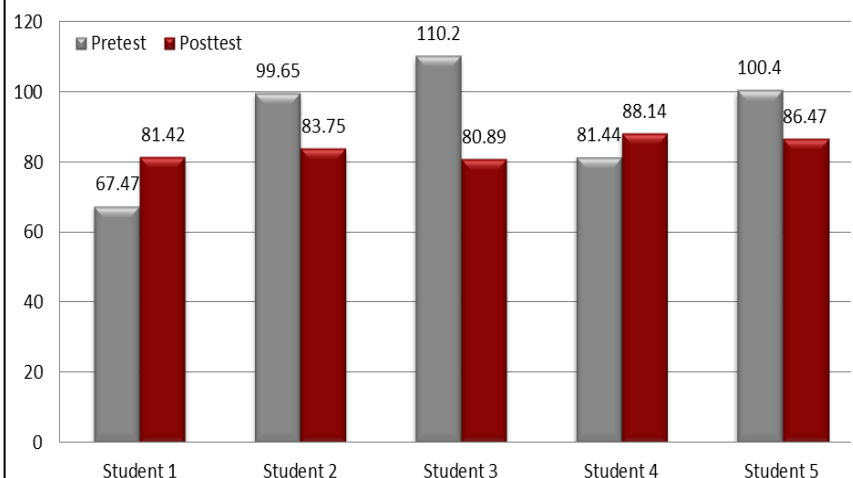
Students rated their own PO level of intercultural competence along a continuum of orientations from a monocultural perspective of Denial to the intercultural mindset of Adaptation. Results show that students believed themselves to have a fairly high intercultural mindset of “Acceptance” and this belief was not impacted by their experience abroad.



### Developmental Orientation (DO)

The overall comparison of pre-DO average scores (91.83) to post-DO scores (84.14) revealed students regressed. However, individuals’ pattern of scores varied; students with lower pre-survey scores increased, whereas students with higher pre-survey scores decreased. Perhaps students who scored higher on the pre-survey realized their level of intercultural competence was not as developed as they believed it to be prior to their experience abroad.

### Developmental Orientation pre- and post-survey student scores



## Research Abroad Recommendations

- ◆ The IDI revealed that students did not grow or progress along the intercultural continuum as a result of their RAE. Students may have perceived themselves to have a more intercultural perspective than they actually did prior to the RAE and/or they may not have been prepared for the intercultural aspects of the RAE.
- ◆ RAE mentors suggest sharing more information on RAEs:
  - Clarify that foreign participants can send students to the US to conduct research
    - Reach out to foreign participants to encourage participation and plan for their students' visits to the US.
    - Post a list of institutions and mentors that have participated in RAEs and the projects they completed.



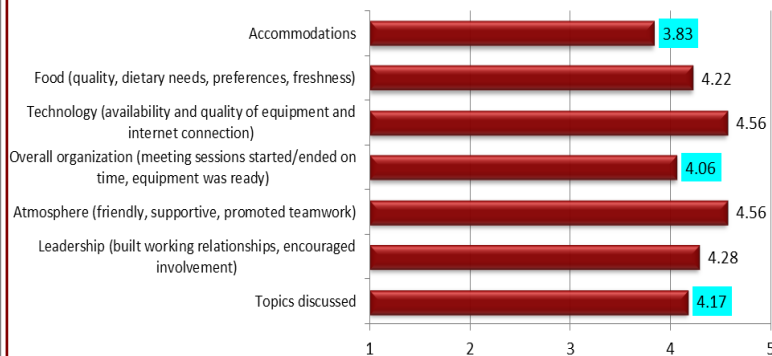
- Provide cultural training at the home institution prior to the RAE as well as during the RAE at abroad institutions.
- Initiate and facilitate students from other countries coming to the US to participate in RAEs.
- Ensure that a research abroad mentor is identified before students leave their home institution.
- Plan ahead and set up accommodations earlier
- Notify that the evaluator will contact the mentor to obtain feedback.

## NANOGrav Working Group meeting

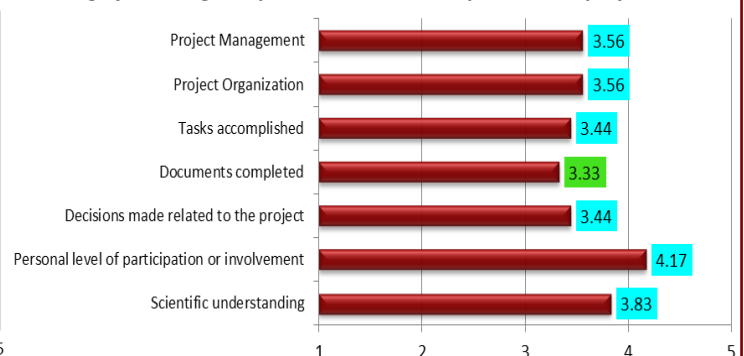
Twenty-four faculty and graduate students participated in the Nov. 17-18 NANOGrav working group meeting in Charlottesville, VA at the National Radio Astronomy Observatory. Eighteen participants (75%) from 10 different universities and 11 different institutions completed evaluation forms. The wide variety of participants further promoted inter-institutional collaborations.



### Rating of satisfaction with aspects of the meeting



### Rating of meeting's improvement to and impact on the project



## Working Group Meeting Recommendations

**Demographics:** Respondents were primarily male (87%), Caucasian (94%).

*Identify ways to include females and individuals from underrepresented minority groups in the PIRE project. Advertise to these groups. Personally invite individuals to attend.*

**Components:** Working Group meeting activities were rated useful and productive. However, attendees commented that the agenda was substantially revised up until the travel day as well as during the meeting. Some planned meeting components did not take place.



*Organize the agenda further in advance so presenters and attendees are informed and prepared for meeting sessions. Encourage attendees to provide additional feedback beyond ratings to facilitate the improvement of these meetings. Provide supporting materials for decisions and discussions well ahead of the meeting and designate someone to lead sessions in the PI's absence.*



## General Recommendations

- ◆ Project participants may not be aware of project evaluation results. *Email a reminder to all participants when the quarterly evaluation results are posted. Include the report Table of Contents in the body of the email to inform participants of report contents.*
- ◆ *More advanced planning of meeting dates, agenda, discussions and pending decisions.*
  - ◆ *A RAE training program, would enhance research abroad experiences and provide students with study directives including information about the host culture, research being conducted, journaling, and reading resources.*

## Upcoming Evaluation Activities

- Evaluation of NANOGrav-PIRE Arecibo, Puerto Rico meeting
- Revised project logic model
- International engagement documents