Award ID: 0801465
Project Characteristics
PI: Phillips, Colin - Reporting Year: 2010

NSF directorates:
Biological Sciences
Computer and Information Science and Engineering
Social, Behavioral, and Economic Sciences

Did you support any IGERT trainees during the current project year?
Yes

Considering the IGERT trainees as a group, how do they compare with graduate students you usually see in terms of their academic/research potential?
Somewhat better than our usual graduate students

How do trainees in your program earn their doctoral degrees?
Trainees earn their degrees from traditional single-discipline departments.
Trainees earn their degrees from multidisciplinary/interdisciplinary programs, centers, or units other than IGERT.
Other (certificates, etc.) : Neuroscience & Cognitive Science Certificate Program

Does your IGERT project include undergraduate involvement?
No

Does your IGERT project include postdoctoral involvement?
No

Indicate the amount of funds from the current year of IGERT support that will be carried over to the next year.
Total funds carried over to the next year: 432488
Participant support costs carried over to the next year: 222467
Stipends carried over to the next year: 94354

Award ID: 0801465
Research Achievements
PI: Phillips, Colin - Reporting Year: 2010

First achievement:
Project members, led by 4th year student Sunyoung Lee-Ellis, made important discoveries on the language of Heritage Language speakers. These speakers, often found in immigrant communities, are of great interest because their initial/native language is different from their primary language as adults. This allows researchers to tease apart the contributions to successful learning of the amount and the timing of language experience. Working with 3rd year student Shannon Hoerner and a number of faculty collaborators, Lee-Ellis found dissociations between language domains where early experience is critical and domains where the quantity of experience is most critical. Her most striking finding is that Korean Heritage speakers, whose first language was Korean and who continue to use Korean in family settings on a daily basis, but who use English more frequently, show the same limitations in perceiving
Korean speech sounds as monolingual English speakers who know no Korean at all.

**Second achievement:**

Three students (Brian Dillon, Linguistics; Candise Chen, Human Development; Wing Yee Chow, Linguistics) completed highly productive summer research internships at the State Key Laboratory for Cognitive Neuroscience at Beijing Normal University, China, working with two different host labs. Dillon and Chen's visits were supported by NSF-EAPSI fellowships. Dillon and Chow’s work used distinctive properties of the Chinese language to test influential claims about the role of sentence structure in the rapid construction of meanings. Their work has already gained much attention at leading international conferences on language. Chen's work examined the relation between tone perception and literacy development in Chinese-speaking children. Importantly for our IGERT program, this visit created new connections between students that have led to greatly increased participation in our IGERT by students in the Dept of Human Development.

**Third achievement:**

Students Erika Hussey and Susan Teubner-Rhodes (both Psychology) made bold forays into language processing research, through a collaboration between their home lab (the Decision & Memory Lab) and Maryland’s Center for Advanced Study of Language. This work focused on the role of anxiety in executive control processes in sentence understanding, and it led Erika and Susan to give a presentation at the leading international conference in psycholinguistics, a new venue for them. Additionally, this project led to new methodological collaboration and resource sharing between the Departments of Linguistics and Psychology.

---

**Award ID: 0801465**

**Education Achievements**

**PI: Phillips, Colin - Reporting Year: 2010**

**First achievement:**

Our program held its second annual 'Winter Storm', a 2-week intensive workshop held during the U of Maryland's winter session. This year's version of Winter Storm incorporated many changes that emerged from a student-run assessment process the previous year. In particular, this year’s Winter Storm was primarily student-led, leading to a greater sense of cooperation and shared ownership of the event. Students from collaborated in leading hands-on training sessions that showed how their own technical tools could be applied to data from a student from another department. Student-led research planning groups met more regularly and in smaller, more focused clusters, yielding more projects that were sustained beyond Winter Storm. Other activities included a very well-received professional development talk by a recent PhD who now holds a faculty position in an interdisciplinary setting, social events, and a 1-day thematic workshop that brought together participants from 3 IGERT programs.

**Second achievement:**

The program sponsored new courses aimed at a diverse audience, including a seminar on multi-disciplinary perspectives on categorization, and a seminar on linguistics and language disorders that brought together students from Linguistics, Hearing and Speech Sciences, and Psychology. The most successful courses, from the perspective of the program, were those that brought students together in small groups where all students felt comfortable as active participants, without domination of one group or perspective.

**Third achievement:**

A key achievement in the service of our program's educational goals is recruitment of first-rate new faculty who will build critical bridges across fields and whose individual goals align closely with those of the program. Despite officially being in a hiring freeze, the U of Maryland made an unprecedented six new tenure-track faculty appointments in language science in 2009-10, spread across 4 departments. This indicates how the university has redoubled its support for interdisciplinary language research as a consequence of the IGERT. IGERT students were very active participants in a number of these faculty searches, and students are already including these new faculty in their research and training plans.
Award ID: 0801465
Trainee Achievements
PI: Phillips, Colin - Reporting Year: 2010

**First achievement:**
Although we are only approaching the end of the second year of our program, third year PhD student Brian Dillon has already secured a prestigious faculty position. Brian will start in Fall 2011 as an Assistant Professor in Linguistics at the U of Massachusetts, a perennial top-5 linguistics program. UMass is making a 'cluster hire' of multiple new faculty across Linguistics, Psychology, and Computer Science, in an effort to build the kind of cross-department collaboration that we enjoy at the U of Maryland. Brian's combined expertise in linguistics and language diversity, computational modeling, and cognitive (neuro-)science made him an ideal fit for this position. In the past year Brian also won an NSF-EAPSI award to support his summer research in Beijing, China, submitted a number of journal articles, and gave talks at the leading conferences in his areas of expertise.

**Second achievement:**
Neuroscience student Kevin Donaldson has made successful 'leaps' across extremely diverse labs. Kevin's home base is in a lab that focuses on single-unit recordings of ferret auditory cortex in the Dept of Electrical Engineering. He spent the fall semester working in a molecular neuroscience lab in the Dept of Biology, and the spring semester working in a human perception lab in the Dept of Linguistics. Kevin will be drawing on each of these impressively diverse areas in his dissertation, which he will be developing in 2010-11.

**Third achievement:**
Pedro Alcocer, a 3rd Linguistics student, formed two partnerships that have greatly helped his work. First, he teamed up with students from Psychology and Second Language Acquisition to conduct a cross-language study on the cognitive neuroscience of speech perception, which led to a joint conference presentation. Second, he collaborated with researchers from the Federal University of Rio de Janeiro in Brazil to carry out a series of experiments on sentence comprehension in Brazil, exploiting features of Brazilian Portuguese that are ideal for testing current theoretical debates. This led to a joint talk at the leading conference in psycholinguistics, and a continuation of the Brazilian partnership. As a part of Pedro's trip to Brazil, he offered hands-on training for Brazilian students in analytical tools that we had taught during our own Winter Storm workshop. Some of the Brazilian students have continued to consult remotely with Pedro on related issues over the course of the year.

---

Award ID: 0801465
Barriers to Implementation
PI: Phillips, Colin - Reporting Year: 2010

**First Barrier**

**Issue/challenge:**
In a diverse program that draws students and faculty from across a large university campus, it is difficult for people to keep abreast of opportunities, events, best practices, etc. IGERT program directors and coordinators tend to be...
uncommonly well aware of all of these, but should bear in mind that others are less likely to share this breadth of information. Evaluation meetings and focus groups repeatedly highlight communication and awareness as a challenge for our program.

Response:
We have taken a number of steps this year to improve the flow of information. This has been greatly helped by the hiring of an excellent program coordinator, which we did not have in the first year of our program. (a) We have created email reflectors that identify a broad community, rather than just the IGERT program ('languagescience_students', 'languagescience_faculty') that are available to all for distributing information across departments. (b) We have initiated regular email newsletters that go to our 70 participating students and faculty, highlighting group and individual achievements, introducing new faculty hires, spotlighting student research projects, announcing upcoming events, etc. (c) We have implemented more structure in the process of monitoring and providing feedback to students, from the application to the program (1st and 2nd year students) through lab rotations and beyond.

Second Barrier
Issue/challenge:
We encounter much unevenness in the degree of 'buy-in' to our program's goals from students and faculty alike. As a consequence, some departments are more visible in the program than we expected, and others are not yet benefiting as much as they should. For example, this year saw a surge in participation from the Dept of Human Development, which we had not anticipated. On the other hand, we had expected broad involvement from students in the Second Language Acquisition program, but participation has been limited to a couple of very enthusiastic students (who have benefited greatly from the program). Sustainable change requires that people genuinely believe in what we are trying to achieve. This is made more difficult by the huge differences in disciplinary cultures that our program encompasses, ranging from theoreticians, neuroscientists, electrical engineers, and experts in education and clinical research.

Response:
We have taken steps to broaden participation in the program, and have used the formative assessment process to discuss strategies for increasing 'buy in' to the goals of the program. (a) We organized information sessions on the IGERT program and the language science community early in the fall semester, targeted at faculty and students in two departments. The presentation to the Dept of Human Development was a success, and yielded greater involvement. The presentation to the Second Language Acquisition program had less impact. We are working on devising additional strategies to attract this group. (b) Students designed specific activities during the Winter Storm workshop to highlight the contributions of cross-language research to different areas of language science. (c) We plan to organize new activities that will allow different groups within our community to showcase their distinctive expertise. (d) We are seeking ways to broaden and refresh the faculty leadership in the program.

Third Barrier
Issue/challenge:
One of our program's greatest assets is the enthusiastic support of the Dept of Linguistics, where a clear majority of students and faculty are regular participants in IGERT events, regardless of their official status in the program. The department also has excellent research and meeting facilities, which are used extensively by the IGERT. However, the sheer extent of this involvement and support can create the impression that one participating program is too dominant in the IGERT, and may be a deterrent to some potential participants from other programs. Linguistics accounts for around half of the NSF-funded IGERT fellows, and a little over half of the participants at most program events.

Response:
(a) The program is devising strategies to attract new students into program activities upon arrival at the university, creating a new 'novice' status in the program, which could pair new students with experienced students, and will provide greater guidance in developing proposals for applications to the program (our program requires that students submit detailed training, research, and outreach plans as a condition of joining the program). (b) We will expand our efforts to organize more program events in different locations around the university, to offset the perception that the program is focused in one place. (c) We will strive for more visible leadership in program activities from faculty from multiple departments. (d) We will provide students with more information on the training programs that fellow students are pursuing, in an effort to correct the (mis-)perception that the program requirements are biased towards students from one program.
Award ID: 0801465
Outreach Activities
PI: Phillips, Colin - Reporting Year: 2010

Outreach Activity 1
Title:
Field Trip for 90 High School Students
Name of media outlet or organization for which outreach was done:
Northwood High School, Silver Spring, MD
Date of activity:
04/27/2010
Briefly describe this activity, including the type of the activity and the names of individuals within IGERT who were involved:
20 IGERT participants led a morning-long series of hands-on activities for 90 AP-Psychology students from Northwood High School, a local school with a very diverse student population.

Outreach Activity 2
Title:
High School Visit
Name of media outlet or organization for which outreach was done:
Northwood High School, Silver Spring, MD
Date of activity:
02/10/2010
Briefly describe this activity, including the type of the activity and the names of individuals within IGERT who were involved:
IGERT program co-PI Jeff Lidz visited Northwood High School to speak to a group of 150 students from psychology and language classes about science of language research.

Outreach Activity 3
Title:
IGERT trainees highlighted in Graduate School Publicity
Name of media outlet or organization for which outreach was done:
University of Maryland
Date of activity:
02/10/2010
Briefly describe this activity, including the type of the activity and the names of individuals within IGERT who were involved:
Students Brian Dillon and Ewan Dunbar were featured in a UM media publication that highlights the impact of graduate student recruitment initiatives.

**Outreach Activity 4**

**Title:**
Maryland Day Community Outreach

**Name of media outlet or organization for which outreach was done:**
General Public

**Date of activity:**
04/24/2010

**Briefly describe this activity, including the type of the activity and the names of individuals within IGERT who were involved:**
Students and faculty from the IGERT's group on early language development had a tent and research display at UM's annual Maryland Day, an event that brought 70,000 community members to the campus.

---

**Award ID: 0801465**

**NSF Highlights**

**PI: Phillips, Colin - Reporting Year: 2010**

**NSF Highlights 1**

**Title:**
Heritage language research reveals the fragility of the 'mother tongue'

**Primary Strategic Goal:**
Discovery: Foster research that will advance the frontiers of knowledge, emphasizing areas of greatest opportunity and potential benefit and establishing the Nation as a global leader in fundamental transformational science and engineering.

**Secondary Strategic Goal:**
Learning: Cultivate a world-class, broadly inclusive science and engineering workforce and expand the scientific literacy of all citizens.

**Describe the achievement / result that is the Highlight:**
We think of our 'mother tongue' as if it is an essential part of who we are, which stays with us for life and shapes the way that we view the world. But our first language may not be as inalienable as we assume. New studies at the University of Maryland by Sunyoung Lee-Ellis and Shannon Hoerner are putting this assumption to the test, and their results suggest that some features of our mother tongue remain with us for life, while others are far more vulnerable to influences from other languages. These findings challenge long-standing views on the implasticity of human language abilities and suggest that the brain shows selective plasticity after initial language learning. Lee-Ellis & Hoerner are trainees in the program "Biological and Computational Foundations of Language Diversity," which is supported by NSF's Integrative Graduate Education and Research Traineeship (IGERT) program. Lee-Ellis and Hoerner are learning about the resilience of the native language by studying heritage language speakers, a group whose language background provides a special window into the relative importance of the earliness and the amount

https://www.igertweb.org/controllers/link.cfc?method=print_preview&...ccessLevel=pi&session_id=023574687081627349025597&javascript_flag=T
of experience that a learner receives in different languages. Heritage language speakers are typically the children of immigrants who are exposed primarily to their heritage language when young and continue to use that language in the home, but who become more dominant in a second language later in life, due to their school or social environment. In the 'melting pot' society of the United States, heritage speakers have long made up a sizeable chunk of the population, but it is only recently that language researchers have recognized the special interest of this group. Heritage speakers are a unique group of bilinguals, since they are generally highly proficient in both languages, but are different from mono-lingual speakers of both languages. Lee-Ellis and Hoerner have been studying heritage speakers of Korean, one of the fastest growing groups of heritage speakers in the US today. In their studies Lee-Ellis and Hoerner take advantage of the fact that different languages carve up the world around us into different categories. For example, Korean distinguishes two types of 's' sound that English-speakers find it very hard to discriminate, and Korean speakers find it very difficult to tell the difference between nonsense words like 'kasta' and 'kasuta', something that is very easy for English speakers. Also, the two languages talk about spatial relations between objects in different ways: whereas English prepositions like 'in' and 'on' highlight the difference between configurations involving 'containment' and 'support', Korean speakers are more likely to classify the same configurations in terms of 'tight fit' and 'loose fit' (see the figure). Drawing upon research techniques from linguistics and psychology, the Maryland team found that Korean heritage speakers perceive speech sounds in a remarkably similar fashion to monolingual English speakers. That is, they struggle with Korean sound contrasts that they have been exposed to throughout their life, and succeed with English contrasts that are very difficult for their parents. In contrast, when Korean heritage speakers perceive spatial relations between objects they show the same bias as their parents to attend to the tight fit vs. loose fit distinction when viewing visual events. These findings hold much interest for our understanding of monolingual and bilingual language learning alike, and they show that some types of early experience have longer lasting impact than others. They are also valuable for teachers and parents who might be struggling to understand why children who are heritage speakers find it very easy to adapt to some aspects of their new language environment and much harder to adapt in others.

How does this activity address the primary and secondary NSF Strategic Goals you indicated above?

Discovery: the research investigates heritage language speakers, an important but understudied segment of the US population that holds great promise for understanding brain plasticity. Learning: the research is the result of interdisciplinary graduate training that brings together students from different disciplines to carry out studies that they could not easily carry out individually.

Images Uploaded

Image 1 information

Image Title:

English and Korean words classify the same spatial relations differently.

Does NSF have permission to use this image? Yes

Image credits:

Shannon Hoerner, Sunyoung Lee-Ellis

Description of image:
Project Years Active: 2008-2009  2009-2010

Contact Information:
Institution: University of Maryland - College Park
Department: Linguistics
Address: 1401 Marie Mount Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-3082 Ext:
Fax Number: 301-405-7104
Email: colin@umd.edu
Web URL: http://www.ling.umd.edu/colin

Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Male
Disability: None
Citizenship: U.S. Permanent Resident

Award ID: 0801465
Coordinator Information
Reporting Year: 2010

Coordinator:
Name: Kajtar, Csilla
Maiden Name:

Contact Information:
Institution: University of Maryland
Title: oth
Department: Department of Linguistics
Address: 1401 Marie Mount Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-5800 Ext:
Fax Number: 301-405-7104

Printed: Apr 29, 2010
Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Bernstein Ratner, Nan
Maiden Name:
Project Years Active: 2009-2010
Role in Project: Trainee/Associate Advisor
Contact Information:
Institution: University of Maryland
Department: Hearing and Speech Sciences
Address: 0100 Lefrak Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-4217 Ext:
Fax Number: 301-314-2023
Email: nratner@umd.edu
Web URL: http://www.bsos.umd.edu/hesp/facultyStaff/ratnern.htm
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Female
Disability: None
Citizenship: U.S. Citizen/U.S. National

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Bolger, Donald
Maiden Name:
Project Years Active: 2009-2010

https://www.igertweb.org/controllers/link.cfc?method=print_preview&...ccessLevel=pi&session_id=023574687081627349025597&javascript_flag=T
Role in Project: Trainee/Associate Advisor

Contact Information:
Institution: University of Maryland
Department: Human Development
Address: 3304 Benjamin Bldg
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-9103 Ext:
Fax Number: 301-405-2891
Email: djbolger@umd.edu
Web URL: http://www.terpconnect.umd.edu/~djbolger/LRNLlab.html

Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Male
Disability: None
Citizenship: U.S. Citizen/U.S. National

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Braun, Allen
Maiden Name:
Project Years Active: 2009-2010
Role in Project: Trainee/Associate Advisor

Contact Information:
Institution: NIDCD/NIH
Department: Voice, Speech, and Language Branch
Address: Building 10, Room 8S235A
City: Bethesda
State: MD Zip Code: 20892
Phone Number: 301-402-1497 Ext:
Fax Number: 301-402-0409
Email: brauna@nidcd.nih.gov
Web URL: http://www.nidcd.nih.gov/research/scientists/brauna.asp
Demographic Information:

Ethnicity: Not Reported
Race: Not Reported
Gender: Male
Disability: Not Reported
Citizenship: Not Reported

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: de Keyser, Robert
Maiden Name:

Project Years Active: 2008-2009  2009-2010
Role in Project: Trainee/Associate Advisor

Contact Information:
Institution: University of Maryland
Department: Second Language Acquisition
Address: 3215 Jimenez Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-4030 Ext:
Fax Number: 301-405-9752
Email: rdk@umd.edu
Web URL: http://www.languages.umd.edu/SLAA/rdk.html

Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Male
Disability: None
Citizenship: U.S. Permanent Resident
Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Dougherty, Michael
Maiden Name:
Project Years Active: 2008-2009 2009-2010
Role in Project: Trainee/Associate Advisor
Contact Information:
Institution: University of Maryland
Department: Psychology
Address: 1145B Biology-Psychology
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-8423 Ext:
Fax Number: 301-314-9566
Email: mdougherty@psyc.umd.edu
Web URL: http://www.bsos.umd.edu/psyc/dougherty/
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Male
Disability: None
Citizenship: U.S. Citizen/U.S. National

Printed: Apr 29, 2010
Institution: University of Maryland
Department: School of Languages, Literatures, and Cultures
Address: 3215 Jimenez Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-0185 Ext:
Fax Number: 301-314-9752
Email: kiragor@umd.edu
Web URL: http://www.languages.umd.edu/SLAA/faculty.htm

Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Female
Disability: None
Citizenship: U.S. Citizen/U.S. National

Printed: Apr 29, 2010

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Hacquard, Valentine
Maiden Name:
Project Years Active: 2009-2010
Role in Project: Trainee/Associate Advisor

Contact Information:
Institution: University of Maryland
Department: Linguistics
Address: 1401 Marie Mount Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-5493 Ext:
Fax Number: 301-405-7104
Email: hacquard@umd.edu
Web URL: www.ling.umd.edu

Demographic Information:
Ethnicity: Not Reported
**Race:** Not Reported  
**Gender:** Female  
**Disability:** Not Reported  
**Citizenship:** Not Reported  

---  

**Award ID: 0801465**  
**Co-Principal Investigator/Advisor Information**  
**Reporting Year: 2010**  

**Co-Principal Investigator/Advisor:**  
**Name:** Hornstein, Norbert  
**Maiden Name:**  

**Project Years Active:** 2008-2009 2009-2010  
**Role in Project:** Trainee/Associate Advisor  

**Contact Information:**  
**Institution:** University of Maryland  
**Department:** Linguistics  
**Address:** 1401 Marie Mount Hall  
**City:** College Park  
**State:** MD  **Zip Code:** 20742  
**Phone Number:** 301-405-4932  **Ext:**  
**Fax Number:** 301-405-7104  
**Email:** nhornste@umd.edu  
**Web URL:** http://www.ling.umd.edu/~hornstein/  

**Demographic Information:**  
**Ethnicity:** Not Hispanic or Latino  
**Race:** White  
**Gender:** Male  
**Disability:** None  
**Citizenship:** U.S. Permanent Resident  

---  

**Award ID: 0801465**
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Idsardi, William
Maiden Name:
Project Years Active: 2008-2009 2009-2010
Role in Project: Trainee/Associate Advisor
Contact Information:
Institution: University of Maryland
Department: Linguistics
Address: 1401 Marie Mount Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-8376 Ext:
Fax Number: 301-405-7104
Email: idsardi@umd.edu
Web URL: http://www.ling.umd.edu/~idsardi
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Male
Disability: None
Citizenship: U.S. Citizen/U.S. National

Co-Principal Investigator/Advisor:
Name: Jiang, Nan
Maiden Name:
Project Years Active: 2008-2009 2009-2010
Role in Project: Trainee/Associate Advisor
Contact Information:
Institution: University of Maryland

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Jiang, Nan
Maiden Name:
Project Years Active: 2008-2009 2009-2010
Role in Project: Trainee/Associate Advisor
Contact Information:
Institution: University of Maryland
Department: Second Language Acquisition
Address: 4117 Jimenez Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-1378 Ext:
Fax Number: 301-405-9928
Email: njiang@umd.edu
Web URL: http://www.languages.umd.edu/SLAA/faculty.htm
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: Asian
Gender: Male
Disability: None
Citizenship: U.S. Citizen/U.S. National

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Lasnik, Howard
Maiden Name:
Project Years Active: 2009-2010
Role in Project: Trainee/Associate Advisor
Contact Information:
Institution: University of Maryland
Department: Linguistics
Address: 1106 Marie Mount Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-4929 Ext:
Fax Number: 301-405-7104
Email: lasnik@umd.edu
Web URL: http://www.ling.umd.edu/~lasnik/
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
**Co-Principal Investigator/Advisor Information**

Award ID: 0801465

**Reporting Year: 2010**

<table>
<thead>
<tr>
<th>Co-Principal Investigator/Advisor:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong> Lidz, Jeffrey</td>
</tr>
</tbody>
</table>

| **Maiden Name:**                          |
| **Project Years Active:** 2008-2009 2009-2010 |

| **Role in Project:** Trainee/Associate Advisor Co-Principal Investigator |

| **Contact Information:**                   |
| **Institution:** University of Maryland    |
| **Department:** Linguistics                |
| **Address:** 1401 Marie Mount Hall         |
| **City:** College Park                     |
| **State:** MD                              |
| **Zip Code:** 20742                        |
| **Phone Number:** 301-405-8220             |
| **Fax Number:** 301-405-7104               |
| **Email:** jlidz@umd.edu                   |
| **Web URL:** http://www.ling.umd.edu/~jlidz/ |

| **Demographic Information:**              |
| **Ethnicity:** Not Hispanic or Latino     |
| **Race:** White                           |
| **Gender:** Male                          |
| **Disability:** None                      |
| **Citizenship:** U.S. Citizen/U.S. National |

---

Printed: Apr 29, 2010
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Long, Michael
Maiden Name:
Project Years Active: 2008-2009 2009-2010
Role in Project: Co-Principal Investigator
Contact Information:
Institution: University of Maryland
Department: Second Language Acquisition
Address: 1105C Jimenez Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-6464 Ext:
Fax Number: 301-314-9928
Email: mlong5@umd.edu
Web URL: http://www.languages.umd.edu/SLAA/mlong.html
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Male
Disability: None
Citizenship: U.S. Permanent Resident

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Newman, Rochelle
Maiden Name:
Project Years Active: 2008-2009 2009-2010
Role in Project: Trainee/Associate Advisor
Contact Information:
Institution: University of Maryland
Department: Hearing & Speech Sciences
Address: 0141BB Lefrak Hall
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-4226 Ext:
Fax Number: 301-314-2023
Email: rnewman@hesp.umd.edu
Web URL: http://www.bsos.umd.edu/hesp/facultyStaff/newmanr.htm
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Female
Disability: None
Citizenship: U.S. Citizen/U.S. National

Printed: Apr 29, 2010

Award ID: 0801465
Co-Principal Investigator/Advisor Information
  Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Novick, Jared
Maiden Name:
Project Years Active: 2008-2009 2009-2010
Role in Project: Trainee/Associate Advisor
Contact Information:
Institution: University of Maryland
Department: Center for Advanced Study of Language
Address: CASL, Box 25
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-226-8841 Ext:
Fax Number: 301-226-8811
Email: jnovick@casl.umd.edu
Web URL: http://www.casl.umd.edu/talent/PeopleProjects.cfm?people_id=261
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: White
Gender: Male
**Disability:** None  
**Citizenship:** U.S. Citizen/U.S. National  

---  

**Award ID: 0801465**  
**Co-Principal Investigator/Advisor Information**  
**Reporting Year: 2010**

**Co-Principal Investigator/Advisor:**
**Name:** Reggia, James

**Maiden Name:**

**Project Years Active:** 2008-2009 2009-2010

**Role in Project:** Trainee/Associate Advisor

**Contact Information:**
**Institution:** University of Maryland

**Department:** Computer Science

**Address:** 3233 AV Williams Building

**City:** College Park

**State:** MD  **Zip Code:** 20742

**Phone Number:** 301-405-2686  **Ext:**

**Fax Number:** 301-405-6707

**Email:** reggia@cs.umd.edu

**Web URL:** http://www.cs.umd.edu/~reggia/

**Demographic Information:**
**Ethnicity:** Not Hispanic or Latino

**Race:** White

**Gender:** Male

**Disability:** None

**Citizenship:** U.S. Citizen/U.S. National
<table>
<thead>
<tr>
<th><strong>Co-Principal Investigator/Advisor:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
<td>Resnik, Philip</td>
</tr>
<tr>
<td><strong>Maiden Name:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Project Years Active:</strong></td>
<td>2008-2009 2009-2010</td>
</tr>
<tr>
<td><strong>Role in Project:</strong></td>
<td>Trainee/Associate Advisor</td>
</tr>
<tr>
<td><strong>Contact Information:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Institution:</strong></td>
<td>University of Maryland</td>
</tr>
<tr>
<td><strong>Department:</strong></td>
<td>Linguistics</td>
</tr>
<tr>
<td><strong>Address:</strong></td>
<td>1401 Marie Mount Hall</td>
</tr>
<tr>
<td><strong>City:</strong></td>
<td>College Park</td>
</tr>
<tr>
<td><strong>State:</strong></td>
<td>MD</td>
</tr>
<tr>
<td><strong>Zip Code:</strong></td>
<td>20742</td>
</tr>
<tr>
<td><strong>Phone Number:</strong></td>
<td>301-405-6760</td>
</tr>
<tr>
<td><strong>Fax Number:</strong></td>
<td>301-405-7104</td>
</tr>
<tr>
<td><strong>Email:</strong></td>
<td><a href="mailto:resnik@umd.edu">resnik@umd.edu</a></td>
</tr>
<tr>
<td><strong>Web URL:</strong></td>
<td><a href="http://www.umiacs.umd.edu/~resnik/">http://www.umiacs.umd.edu/~resnik/</a></td>
</tr>
<tr>
<td><strong>Demographic Information:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity:</strong></td>
<td>Not Hispanic or Latino</td>
</tr>
<tr>
<td><strong>Race:</strong></td>
<td>White</td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
<td>Male</td>
</tr>
<tr>
<td><strong>Disability:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Citizenship:</strong></td>
<td>U.S. Citizen/U.S. National</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th><strong>Award ID:</strong></th>
<th>0801465</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Co-Principal Investigator/Advisor Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Reporting Year:</strong></td>
<td>2010</td>
</tr>
<tr>
<td><strong>Co-Principal Investigator/Advisor:</strong></td>
<td>Shah, Yasmeen</td>
</tr>
<tr>
<td><strong>Maiden Name:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Project Years Active:</strong></td>
<td>2008-2009 2009-2010</td>
</tr>
<tr>
<td><strong>Role in Project:</strong></td>
<td>Trainee/Associate Advisor</td>
</tr>
<tr>
<td><strong>Contact Information:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Institution:</strong></td>
<td>University of Maryland</td>
</tr>
<tr>
<td><strong>Department:</strong></td>
<td>Hearing &amp; Speech Sciences</td>
</tr>
<tr>
<td><strong>Address:</strong></td>
<td>0141F Lefrak Hall</td>
</tr>
<tr>
<td><strong>City:</strong></td>
<td>College Park</td>
</tr>
<tr>
<td>State:</td>
<td>MD</td>
</tr>
<tr>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>Phone Number:</td>
<td>301-405-4229</td>
</tr>
<tr>
<td>Fax Number:</td>
<td>301-314-2023</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:yshah@hesp.umd.edu">yshah@hesp.umd.edu</a></td>
</tr>
<tr>
<td>Web URL:</td>
<td><a href="http://www.bsos.umd.edu/hesp/facultyStaff/shahy.htm">http://www.bsos.umd.edu/hesp/facultyStaff/shahy.htm</a></td>
</tr>
</tbody>
</table>

**Demographic Information:**
- Ethnicity: Not Hispanic or Latino
- Race: Asian
- Gender: Female
- Disability: None
- Citizenship: U.S. Permanent Resident

---

**Award ID: 0801465**

**Co-Principal Investigator/Advisor Information**

**Reporting Year: 2010**

**Co-Principal Investigator/Advisor:**
- Name: Shamma, Shihab

**Maiden Name:**

**Project Years Active:** 2008-2009  2009-2010

**Role in Project:** Trainee/Associate Advisor

**Contact Information:**
- Institution: University of Maryland
- Department: Electrical and Computer Engineering
- Address: 2203 AV Williams Building
- City: College Park
- State: MD  Zip Code: 20742
- Phone Number: 301-405-6842  Ext: |
- Fax Number: 301-314-9220
- Email: sas@umd.edu
- Web URL: http://www.isr.umd.edu/faculty/gateways/shamma.htm

**Demographic Information:**
- Ethnicity: Not Hispanic or Latino
- Race: Asian
- Gender: Male
- Disability: None
Co-Principal Investigator/Advisor:
Name: Wang, Min
Maiden Name: 
Project Years Active: 2009-2010
Role in Project: Trainee/Associate Advisor Co-Principal Investigator
Contact Information:
Institution: University of Maryland
Department: Human Development
Address: 3304C Benjamin Building
City: College Park
State: MD Zip Code: 20742
Phone Number: 301-405-8798 Ext:
Fax Number: 301-405-2891
Email: minwang@umd.edu
Web URL: www.wam.umd.edu/~minwang
Demographic Information:
Ethnicity: Not Hispanic or Latino
Race: Asian
Gender: Female
Disability: None
Citizenship: U.S. Permanent Resident
<table>
<thead>
<tr>
<th>Name:</th>
<th>Weinberg, Amy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maiden Name:</td>
<td></td>
</tr>
<tr>
<td>Project Years Active:</td>
<td>2008-2009  2009-2010</td>
</tr>
<tr>
<td>Role in Project:</td>
<td>Co-Principal Investigator</td>
</tr>
<tr>
<td>Contact Information:</td>
<td></td>
</tr>
<tr>
<td>Institution:</td>
<td>University of Maryland</td>
</tr>
<tr>
<td>Department:</td>
<td>Linguistics, Computer Science</td>
</tr>
<tr>
<td>Address:</td>
<td>1401 Marie Mount Hall</td>
</tr>
<tr>
<td>City:</td>
<td>College Park</td>
</tr>
<tr>
<td>State:</td>
<td>MD</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>20742</td>
</tr>
<tr>
<td>Phone Number:</td>
<td>301-405-4934</td>
</tr>
<tr>
<td>Ext:</td>
<td></td>
</tr>
<tr>
<td>Fax Number:</td>
<td>301-405-7104</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:weinberg@umiacs.umd.edu">weinberg@umiacs.umd.edu</a></td>
</tr>
<tr>
<td>Web URL:</td>
<td><a href="http://www.umiacs.umd.edu/~weinberg/">http://www.umiacs.umd.edu/~weinberg/</a></td>
</tr>
<tr>
<td>Demographic Information:</td>
<td></td>
</tr>
<tr>
<td>Ethnicity:</td>
<td>Not Hispanic or Latino</td>
</tr>
<tr>
<td>Race:</td>
<td>White</td>
</tr>
<tr>
<td>Gender:</td>
<td>Female</td>
</tr>
<tr>
<td>Disability:</td>
<td>None</td>
</tr>
<tr>
<td>Citizenship:</td>
<td>U.S. Citizen/U.S. National</td>
</tr>
</tbody>
</table>

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

| Co-Principal Investigator/Advisor: | Woodward, Amanda |
| Maiden Name: |              |
| Project Years Active: | 2008-2009  2009-2010 |
| Role in Project: | Co-Principal Investigator |
| Contact Information: |             |
| Institution: | University of Maryland |
| Department: | Psychology |
| Address: | 2147B Biology-Psychology |
| City: | College Park |
| State: | MD |
| Zip Code: | 20742 |
Phone Number: 301-405-1258    Ext:
Fax Number: 301-405-5914
Email: awoodward@psyc.umd.edu
Web URL: http://www.bsos.umd.edu/psyc/woodward/

Demographic Information:
ETHNICITY: Not Hispanic or Latino
RACE: White
GENDER: Female
DISABILITY: None
CITIZENSHIP: U.S. Citizen/U.S. National

---

Award ID: 0801465
Co-Principal Investigator/Advisor Information
Reporting Year: 2010

Co-Principal Investigator/Advisor:
Name: Zukowski, Andrea
Maiden Name: 
Project Years Active: 2008-2009 2009-2010
Role in Project: Trainee/Associate Advisor

Contact Information:
Institution: University of Maryland
Department: Linguistics
Address: 1401 Marie Mount Hall
City: College Park
State: MD    Zip Code: 20742
Phone Number: 301-405-5388    Ext:
Fax Number: 301-405-7104
Email: zukowski@umd.edu
Web URL: http://www.ling.umd.edu/~zukowski/

Demographic Information:
ETHNICITY: Not Hispanic or Latino
RACE: White
GENDER: Female
DISABILITY: None
CITIZENSHIP: U.S. Citizen/U.S. National
Trainee Information:

Name: Alcocer, Pedro
Maiden Name: 

Funding Status: Funded

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?

Funding data:
- 2008-2009 Project Year – Trainee supported for 0 months
- 2009-2010 Project Year – Trainee supported for 10 months

Current IGERT Advisor(s): (Reported by trainee) – Colin Phillips, William Idsardi

Citizenship/Residency Status:
- U.S. Citizen/U.S. National

GRE Scores:
- Verbal:
- Quantitative:
- Analytical:
- Subject Score:

GRE Subject:

IGERT Trainees:

First enrolled in graduate study in an IGERT department: 08/2007
First began receiving NSF-IGERT funding: 08/2009

Current Situation:
- Has not yet graduated, but is pursuing a Ph.D. at your institution.
Maiden Name:  
Funding Status:  Funded

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?

Funding data:
2008-2009 Project Year – Trainee supported for 10 months
2009-2010 Project Year – Trainee supported for 10 months

Current IGERT Advisor(s):  (Reported by trainee) – Shihab Shamma, William Idsardi

Citizenship/Residency Status:
U.S. Citizen/U.S. National

GRE Scores:
Verbal: 
Quantitative: 
Analytical: 
Subject Score: 

GRE Subject: 

IGERT Trainees:
First enrolled in graduate study in an IGERT department:  08/2006
First began receiving NSF-IGERT funding:  08/2008

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465
Trainee Information
Reporting Year: 2010

Trainee Information:
Name:  Gagliardi, Ann
Maiden Name:  
Funding Status:  Formerly Funded

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y

Funding data:
2008-2009 Project Year – Trainee supported for 10 months
2009-2010 Project Year – Trainee supported for 0 months

Current IGERT Advisor(s):  (Reported by trainee) – Jeffrey Lidz, Philip Resnik

Citizenship/Residency Status:
U.S. Citizen/U.S. National
GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Trainees:
First enrolled in graduate study in an IGERT department: 08/2007
First began receiving NSF-IGERT funding: 08/2008

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465
Trainee Information
Reporting Year: 2010

Trainee Information:
Name: Hoerner, Shannon
Maiden Name:
Funding Status: Funded

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?

Funding data:
2008-2009 Project Year – Trainee supported for 0 months
2009-2010 Project Year – Trainee supported for 10 months

Current IGERT Advisor(s): (Reported by trainee) – Nan Jiang, William Idsardi

Citizenship/Residency Status:
U.S. Citizen/U.S. National

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Trainees:
First enrolled in graduate study in an IGERT department: 08/2007
First began receiving NSF-IGERT funding: 08/2009

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.
Award ID: 0801465
Trainee Information
Reporting Year: 2010

Trainee Information:

Name: Hussey, Erika
Maiden Name: 
Funding Status: Funded

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?

Funding data:
2008-2009 Project Year – Trainee supported for 0 months
2009-2010 Project Year – Trainee supported for 10 months

Current IGERT Advisor(s): (Reported by trainee) – Jared Novick, Michael Dougherty

Citizenship/Residency Status:
U.S. Citizen/U.S. National

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Trainees:
First enrolled in graduate study in an IGERT department: 08/2007
First began receiving NSF-IGERT funding: 08/2009

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.
**Name:** Kush, Dave  
**Maiden Name:**  
**Funding Status:** Funded  
**Has the student been engaged in IGERT activities, research, education, or training during this reporting period?**

**Funding data:**  
2008-2009 Project Year – Trainee supported for 0 months  
2009-2010 Project Year – Trainee supported for 10 months  
**Current IGERT Advisor(s):** (Reported by trainee) – Colin Phillips, Jeffrey Lidz  
**Citizenship/Residency Status:**  
U.S. Citizen/U.S. National  
**GRE Scores:**  
Verbal:  
Quantitative:  
Analytical:  
Subject Score:  
**GRE Subject:**  
**IGERT Trainees:**  
First enrolled in graduate study in an IGERT department: 08/2008  
First began receiving NSF-IGERT funding: 08/2009  
**Current Situation:**  
Has not yet graduated, but is pursuing a Ph.D. at your institution.

---

**Award ID: 0801465**  
**Trainee Information**  
**Reporting Year: 2010**

**Trainee Information :**  
**Name:** Lee-Ellis, Sunyoung  
**Maiden Name:**  
**Funding Status:** Funded  
**Has the student been engaged in IGERT activities, research, education, or training during this reporting period?**

**Funding data:**  
2008-2009 Project Year – Trainee supported for 10 months  
2009-2010 Project Year – Trainee supported for 10 months  
**Current IGERT Advisor(s):** (Reported by trainee) – Andrea Zukowski, Colin Phillips, Jeffrey Lidz, Kira Gor, Nan Jiang, Robert de Keyser, William Idsardi  
**Citizenship/Residency Status :**
U.S. Permanent Resident

GRE Scores:

- Verbal:
- Quantitative:
- Analytical:
- Subject Score:

GRE Subject:

IGERT Trainees:

First enrolled in graduate study in an IGERT department: 08/2006
First began receiving NSF-IGERT funding: 08/2008

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465
Trainee Information
Reporting Year: 2010

Trainee Information:
Name: Monner, Derek
Maiden Name:
Funding Status: Funded

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?

Funding data:
2008-2009 Project Year – Trainee supported for 10 months
2009-2010 Project Year – Trainee supported for 10 months

Current IGERT Advisor(s): (Reported by trainee) – James Reggia, Robert de Keyser

Citizenship/Residency Status:
U.S. Citizen/U.S. National

GRE Scores:
- Verbal:
- Quantitative:
- Analytical:
- Subject Score:

GRE Subject:

IGERT Trainees:

First enrolled in graduate study in an IGERT department: 08/2006
First began receiving NSF-IGERT funding: 08/2008

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465
Trainee Information
Reporting Year: 2010

Trainee Information:
Name: Morini, Giovanna
Maiden Name: Morini
Funding Status: Funded

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?

Funding data:
2009-2010 Project Year – Trainee supported for 10 months

Current IGERT Advisor(s): (Reported by trainee) – Rochelle Newman

Citizenship/Residency Status:
U.S. Permanent Resident

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Trainees:
First enrolled in graduate study in an IGERT department: 08/2008
First began receiving NSF-IGERT funding: 08/2009

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Printed: Apr 29, 2010
Name: Riley, Joshua  
Maiden Name: 
Funding Status: Funded  

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?

Funding data:
2008-2009 Project Year – Trainee supported for 10 months  
2009-2010 Project Year – Trainee supported for 10 months  

Current IGERT Advisor(s): (Reported by trainee) – Allen Braun, Nan Bernstein Ratner, William Idsardi  
Citizenship/Residency Status:  
U.S. Citizen/U.S. National  
GRE Scores:  
Verbal:  
Quantitative:  
Analytical:  
Subject Score:  
GRE Subject:  

IGERT Trainees:  
First enrolled in graduate study in an IGERT department: 08/2006  
First began receiving NSF-IGERT funding: 08/2008  
Current Situation:  
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Associate Information:

Name: Chen, Candise  
Maiden Name: 
Has the student been engaged in IGERT activities, research, education, or training during this reporting period? Y  
Years Active:  
2009-2010 Project Year  
Current IGERT Advisor(s): (Reported by associate) – Donald Bolger, Min Wang  
Citizenship/Residency Status:  
U.S. Citizen/U.S. National  
GRE Scores:  

Award ID: 0801465  
Associate Information  
Reporting Year: 2010
Conclusion

In conclusion, the evidence presented suggests that there is a need for increased funding for IGERT programs to support the research and development of sustainable and innovative solutions. Furthermore, there is a need for more collaboration between universities and industry to ensure the practical application of research findings. The IGERT program has the potential to make a significant impact on solving complex problems, and continued support from all stakeholders is essential to achieve this goal.

References


Acknowledgments

I wish to thank [insert names] for their contributions to this project. This work would not have been possible without their support and guidance.

Appendix

[Include any additional data, tables, or figures here.]

Appendix

Table 1: Data Collection Methodology

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys</td>
<td>On-campus and off-campus surveys</td>
<td>Weekly</td>
</tr>
<tr>
<td>Interviews</td>
<td>One-on-one and focus group</td>
<td>Monthly</td>
</tr>
<tr>
<td>Observations</td>
<td>At IGERT events and workshops</td>
<td>Daily</td>
</tr>
</tbody>
</table>

Table 2: Data Analysis Methods

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative</td>
<td>Coding and thematic analysis</td>
</tr>
<tr>
<td>Quantitative</td>
<td>Statistical analysis</td>
</tr>
<tr>
<td>Mixed Methods</td>
<td>Both qualitative and quantitative analysis</td>
</tr>
</tbody>
</table>
Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Dillon, Brian

Maiden Name:
Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y

Years Active:
2008-2009 Project Year
2009-2010 Project Year

Current IGERT Advisor(s): (Reported by associate) – Colin Phillips, William Idsardi

Citizenship/Residency Status:
U.S. Citizen/U.S. National

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department:  08/2007
First participated in the IGERT project:  08/2008

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Printed: Apr 29, 2010

Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Drummond, Alex

Maiden Name:
Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y

Years Active:
2008-2009 Project Year
2009-2010 Project Year

Current IGERT Advisor(s): (Reported by associate) – Colin Phillips, William Idsardi

Citizenship/Residency Status:
U.S. Citizen/U.S. National

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department:  08/2007
First participated in the IGERT project:  08/2008

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Printed: Apr 29, 2010
Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y

Years Active:
2008-2009 Project Year
2009-2010 Project Year

Current IGERT Advisor(s):  (Reported by associate) – William Idsardi

Citizenship/Residency Status:
U.S. Citizen/U.S. National

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department:  07/2007
First participated in the IGERT project:  08/2008

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.
IGERT Associates:
First enrolled in graduate study in an IGERT department: 08/2008
First participated in the IGERT project: 08/2008
Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

---

Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Freynik, Suzanne
Maiden Name: 
Has the student been engaged in IGERT activities, research, education, or training during this reporting period? Y
Years Active: 2009-2010 Project Year
Current IGERT Advisor(s): As reported by associate – None Listed
Citizenship/Residency Status: Not Reported
GRE Scores:
Verbal: Quantitative: Analytical: Subject Score:
GRE Subject: 
IGERT Associates:
First enrolled in graduate study in an IGERT department: 08/2008
First participated in the IGERT project: 08/2009
Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

---

Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Hwang, So-One
Maiden Name: 
Has the student been engaged in IGERT activities, research, education, or training during this reporting period? Y
Years Active:
2009-2010 Project Year
Current IGERT Advisor(s): (Reported by associate) – William Idsardi
Citizenship/Residency Status:
U.S. Citizen/U.S. National
GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:
GRE Subject:
IGERT Associates:
First enrolled in graduate study in an IGERT department: 07/2006
First participated in the IGERT project: 08/2008
Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Printed: Apr 29, 2010

Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Kronrod, Yakov
Maiden Name: 
Has the student been engaged in IGERT activities, research, education, or training during this reporting period? Y
Years Active:
2009-2010 Project Year
Current IGERT Advisor(s): (Reported by associate) – Philip Resnik
Citizenship/Residency Status:
U.S. Citizen/U.S. National
GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department: 08/2009
First participated in the IGERT project: 08/2009
Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465

Associate Information
Reporting Year: 2010

Associate Information:
Name: Lago, Maria
Maiden Name:
Has the student been engaged in IGERT activities, research, education, or training during this reporting period? Y
Years Active:
2009-2010 Project Year
Current IGERT Advisor(s): (Reported by associate) – Colin Phillips
Citizenship/Residency Status:
Other Non-U.S. Citizen

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department: 06/2009
First participated in the IGERT project: 08/2009
Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.
Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Lewis, Shevaun
Maiden Name:
Has the student been engaged in IGERT activities, research, education, or training during this reporting period? Y
Years Active:
2008-2009 Project Year
2009-2010 Project Year
Current IGERT Advisor(s): (Reported by associate) – Andrea Zukowski, Colin Phillips, Jeffrey Lidz, Valentine Hacquard
Citizenship/Residency Status:
U.S. Citizen/U.S. National
GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:
GRE Subject:
IGERT Associates:
First enrolled in graduate study in an IGERT department: 08/2008
First participated in the IGERT project: 08/2008
Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Printed: Apr 29, 2010

Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Lukyanchenko, Anna

https://www.igertweb.org/controllers/link.cfc?method=print_preview&...cessLevel=pi&session_id=023574687081627349025597&javascript_flag=T
Maiden Name:

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y

Years Active:
2009-2010 Project Year

Current IGERT Advisor(s):  (Reported by associate) – Kira Gor, Nan Jiang

Citizenship/Residency Status:
Other Non-U.S. Citizen

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department:  09/2008
First participated in the IGERT project:  09/2009

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name:  Omaki, Akira

Maiden Name:
Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y

Years Active:
2009-2010 Project Year

Current IGERT Advisor(s): (Reported by associate) – Colin Phillips

Citizenship/Residency Status:
Other Non-U.S. Citizen

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:
GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department: 09/2005
First participated in the IGERT project: 08/2008

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Associate Information:

Name: Parker, Daniel
Maiden Name: Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y
Years Active: 2009-2010 Project Year
Current IGERT Advisor(s): (Reported by associate) – Colin Phillips
Citizenship/Residency Status: U.S. Citizen/U.S. National

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department: 08/2009
First participated in the IGERT project: 08/2009

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.
Associate Information
Reporting Year: 2010

Associate Information:
Name: Sutton, Megan
Maiden Name: Megan Sutton

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y

Years Active:
2009-2010 Project Year

Current IGERT Advisor(s): (Reported by associate) – Jeffrey Lidz

Citizenship/Residency Status:
U.S. Citizen/U.S. National

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department: 07/2009
First participated in the IGERT project: 08/2009

Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Teubner-Rhodes, Susan

Maiden Name:

Has the student been engaged in IGERT activities, research, education, or training during this reporting period?  Y

Years Active:
2009-2010 Project Year

Current IGERT Advisor(s): (Reported by associate) – Donald Bolger, Jared Novick, Michael Dougherty
Citizenship/Residency Status: U.S. Citizen/U.S. National

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department: 08/2008
First participated in the IGERT project: 08/2009
Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465
Associate Information
Reporting Year: 2010

Associate Information:
Name: Wellwood, Alexis
Maiden Name:

Has the student been engaged in IGERT activities, research, education, or training during this reporting period? Y

Years Active:
2009-2010 Project Year

Current IGERT Advisor(s): (Reported by associate) – Colin Phillips, Jeffrey Lidz, Valentine Hacquard

Citizenship/Residency Status:
Other Non-U.S. Citizen

GRE Scores:
Verbal:
Quantitative:
Analytical:
Subject Score:

GRE Subject:

IGERT Associates:
First enrolled in graduate study in an IGERT department: 08/2009
First participated in the IGERT project: 08/2009
Current Situation:
Has not yet graduated, but is pursuing a Ph.D. at your institution.

Award ID: 0801465
IGERT Project Features - Trainee Preparation in Multidisciplinary/Interdisciplinary Research
PI: Phillips, Colin - Reporting Year: 2010

Best Practice 1
Our students have benefited greatly from a number of situations where they have worked, either in small teams or individually, to present their research to audiences that do not share their background assumptions. (a) Students present their research at a weekly lunchtime talk series, where they focus on explaining the overall goals of their field and their research, rather than just their latest results. These talks have been a very popular part of our program this year. (b) An unexpected benefit of our high school outreach program is that the graduate students found it very useful to work in small cross-department teams to plan how to present their work in a way that is engaging to teenagers. These skills will transfer to presenting work to other non-specialist audiences. (c) Students benefit greatly from working in small teams with a well-defined research problem that requires a combination of skills that no single individual possesses.

Measure 1
The success of these practices is evident in the enthusiastic student responses to a focus group organized by our institutional assessment team. Also, the most successful and rewarding activities are the ones that students express the greatest interest in following up, e.g., Winter Storm research groups that continue to meet throughout the semester, outreach activities that students express enthusiasm for organizing in subsequent years.

Best Practice 2
Our IGERT does not admit new PhD students directly to the program, and does use IGERT funding for recruiting. Instead, we encourage students to get involved in program activities as soon as they arrive, and ask them to submit a detailed application during the spring semester. The application consists of a research plan, a training plan, and an outreach plan, plus letters of support from advisors, and a plan for an advanced rotation. Students are expected to work closely with advisors in this process, and they increasingly turn to more advanced students for guidance. A faculty committee reviews the proposals and prepares a review and request for revisions. This process can be daunting for students, but it is valuable in a number of respects: students plan more than they would otherwise, they take a broader perspective on their PhD objectives, they learn about proposal submission and review procedures, and in many cases they are pleasantly surprised at what they are able to achieve.

Measure 2
We added more structure to the proposal submission and review process this year, and it is evident that students see the process as more productive than they did in previous years.

Best Practice 3
Students in our program are closely involved in the program assessment process. They work with program leadership and with professional assessment experts from the university’s Institutional Research, Planning, and Assessment (IRPA) division on devising and analyzing questionnaires and surveys. For example, students used results from their debriefing questionnaire following the first Winter Storm workshop to generate recommendations for improvements in Winter Storm for the following year.

Measure 3
Participation in the assessment process encourages students to adopt a broader and more constructive perspective on the program and the challenges of interdisciplinary training. Students become less likely to focus narrowly on how closely tailored each training activity is to their personal needs, and become more likely to appreciate the challenges
of serving a diverse population, and more likely to recognize the benefits when they occur. In a focus group organized by our internal assessment team, students reported a high level of satisfaction with their participation in the assessment process.

**Mark the following components of multidisciplinary/interdisciplinary research preparation that apply to the majority of IGERT trainees involved in your project during this reporting period.**

<table>
<thead>
<tr>
<th>Component</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees undertook formal coursework/training in research methods, practices, and instrumentation in their primary discipline equivalent to traditional graduate students.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees had practical, hands-on laboratory and/or field experience in conducting research across the breadth of disciplines in the IGERT program.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees undertook formal coursework/training across the breadth of disciplines encompassed by the IGERT project.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees undertook formal coursework/training in both the ethical conduct of research and ethical conduct related to the themes encompassed by your IGERT project.</td>
<td>Yes</td>
</tr>
<tr>
<td>Other preparation to conduct high-quality research: Trainees played a leading role in designing and leading the interdisciplinary training activities, particularly during the 2-week Winter Storm workshop.</td>
<td>Yes</td>
</tr>
<tr>
<td>No components of Trainee Preparation in Multidisciplinary/Interdisciplinary Research applied during this reporting period.</td>
<td>No</td>
</tr>
</tbody>
</table>

---

**Award ID: 0801465**

**IGERT Project Features - Trainee Preparation in Professional Skills**

**PI: Phillips, Colin - Reporting Year: 2010**

**Mark the following components of professional skills development that apply to the majority of IGERT trainees involved in your project during this reporting period.**

<table>
<thead>
<tr>
<th>Component</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees undertook coursework/training that included regular faculty critique of and feedback on professional writing.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees authored, submitted, or published research papers in refereed journals.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees undertook coursework/training (e.g., brown bags, seminars) that included regular critique of and feedback on professional speaking/presentation skills.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees made presentations at academic/scientific professional conferences or meetings.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees presented results from their IGERT project to professional, nonacademic audiences (e.g., industry, government).</td>
<td>No</td>
</tr>
<tr>
<td>Trainees undertook coursework/training to develop media-based or information technology-based communication skills.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees produced multimedia materials, Web sites, or other cyber-enabled tools to communicate the results of their IGERT activities to external audiences.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees used multimedia materials, Web sites, or other cyber-enabled tools as part of their interdisciplinary...</td>
<td></td>
</tr>
</tbody>
</table>
Trainees used multimedia materials, Web sites, or other cyber-enabled tools as part of their interdisciplinary scientific training and collaboration. Yes

Trainees received training in team-building and project management skills. No

Trainees received training in effective time and task management. No

Trainees participated as members of teams engaged in joint research, education, and/or outreach efforts. Yes

Trainees led teams engaged in research, education, and/or outreach efforts. Yes

Other preparation in professional skills development. : Presentation to IGERT students by a recent graduate who works in a program different from his PhD. This was a very popular event for students. Much participation in practice job talks given by advance Yes

No components of Trainee Preparation in Professional Skills applied during this reporting period. No

Printed: Apr 29, 2010

---

**Award ID: 0801465**

**IGERT Project Features - Trainee Preparation for STEM Careers**

**PI: Phillips, Colin - Reporting Year: 2010**

Mark the following components that apply to the majority of IGERT trainees involved in your project during this reporting period. Response

<table>
<thead>
<tr>
<th>Training Activity</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees received training or instruction (e.g., courses, workshops) in effective teaching practices.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees developed and presented course and/or curriculum materials.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees served as mentors to others (e.g., graduate students, undergraduates, laboratory technicians).</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees received training/mentoring in grant proposal preparation.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees authored/coauthored and submitted grant proposals.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees received training/instruction on the interaction between academic research and industrial technical requirements.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees received training/instruction for applying their research to address public policy concerns or issues.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees had internships (off-campus, research, educational, and/or work experiences) in nonacademic settings (e.g., industry, government).</td>
<td>No</td>
</tr>
<tr>
<td>Trainees had professional interactions other than internships with nonacademic employers (e.g. industry, government) in order to learn about career opportunities and requirements.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees communicated, worked, or collaborated with scientists of other nationalities.</td>
<td>Yes</td>
</tr>
<tr>
<td>Other preparation for careers in academia. : Trainees continued to play a central role in the development of the assessment plan for the IGERT program.</td>
<td>Yes</td>
</tr>
<tr>
<td>Other preparation for nonacademic careers (e.g., industry, government). :</td>
<td>No</td>
</tr>
</tbody>
</table>
No components of Trainee Preparation for STEM Careers applied during this reporting period.

Award ID: 0801465

IGERT Project Features - Tactics for Recruitment and Broadening Participation

PI: Phillips, Colin - Reporting Year: 2010

Do you have an overall, active plan with a specific set of goals and timelines for the recruitment and retention of trainees, including specifics for broadening participation of groups underrepresented in science and engineering?

Yes

Best Practice 1

The success of our program hinges on having a diverse group of students and faculty whose engagement in the program is certain from the outset. Our recruitment process is designed to ensure that each student has a strong potential to both face the challenges and make use of the opportunities presented by interdisciplinary research. To this end, students apply to the program only in their second or fourth semester of PhD studies, often after a year or more of IGERT-affiliate status, thus having a thorough knowledge of what the program entails, and having shown prior commitment to the program. Each advisor and the IGERT PI have several discussions with the applicants and help them to design research, training, and outreach plans. The application process is a training process in itself, which once completed provides students with a strong foundation for success. We have refined this process over the past 2 years, leading to many improvements in outcomes and student satisfaction.

Best Practice 2

Two of this year’s new cohort of 5 IGERT fellows, plus one new student who will join the program once he is at UMD, are from underrepresented minorities. We have found that the most effective tools for recruiting minority students are the same tools that work for all students. These students choose to come to Maryland over offers from top programs (in places like Stanford, San Diego, Rochester, and Illinois) only if they are convinced that we offer an environment where they will flourish, and only if they have a strong mentor who assures them that the strength of our programs outweighs the cachet of the institution. Therefore, once we have identified highly qualified applicants, our most effective recruiting tool is our current students, who are energetic, highly satisfied, and increasingly successful in obtaining prestigious faculty positions. Our current goal is to better leverage our combined strengths to increase the number of programs who receive strong minority applicants.

Best Practice 3

Our internal assessment process confirms our impression that our ability to recruit students to our program (once they are already at UMD) is strongly impacted by the involvement of the students’ advisors and the engagement of their student peers. For this reason, we have found that the quality of our trainees’ experiences and involvement depends on broad buy-in from faculty and from students who are funded through other students (e.g., international students, for which we have alternative institutional funding commitments). To this end, we have made targeted efforts to reach out to faculty and students in individual programs (e.g., by giving presentations about IGERT at department-specific events), and we have worked hard to ensure that a broad base of students (currently over 30 regulars) participates in program events, while minimizing any distinctions based on funding sources, and encouraging students to focus on the intellectual and educational benefits of participation.

Please describe the extent to which each of the following practices have been productive for recruiting trainees overall to your IGERT project during this reporting period.

<table>
<thead>
<tr>
<th>Practice</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationships with NSF programs that can provide an undergraduate pool of potential IGERT trainees (e.g., REUs, NSF Centers)</td>
<td>NA</td>
</tr>
<tr>
<td>Relationships with faculty and programs at other academic institutions</td>
<td>Productive</td>
</tr>
<tr>
<td>Use of recruiting resources on your campus (e.g., career service office, graduate studies office)</td>
<td>Somewhat productive</td>
</tr>
</tbody>
</table>
Collaboration with other IGERT projects on recruitment

Use of professional meetings, conferences, associations to communicate with, reach out to, and market to potential IGERT Trainees

Other: (i) Student meetings with visiting faculty/speakers; (ii) Programs that provide post-baccalaureate research fellowships to talented graduates - this practice is being emulated at other institutions in

Please describe the extent to which each of the following practices have been productive for recruiting underrepresented minority and women trainees to your IGERT project during this reporting period.

- Relationships with NSF programs that specifically focus on broadening participation of underrepresented minorities or women in STEM (e.g., LSAMP, AGEP, TCUP, or ADVANCE)
- Use of resources on your campus (e.g., academic advancement programs, offices for campus diversity, or minority and women's student groups)
- Interaction with professional associations, organizations, or committees serving underrepresented minority communities or women (e.g., National Action Council for Minorities in Engineering, Society of Women Engineers, committees in professional societies focused on minority communities and women)
- Bridge programs for entering graduate students
- Mentoring or advising arrangements that take advantage of underrepresented minorities or women faculty or graduate students on campus
- Relationships with faculty and programs at minority-serving academic institutions (e.g., historically black colleges and universities, Hispanic-serving institutions, or tribal colleges)
- Collaboration with other IGERT projects on recruitment
- Other: Student interactions with visiting faculty/speakers

According to NSF records, this project does not have explicit funding for an international component.

Training Experience/Component 1

Pedro Alcocer spent 5 weeks in Rio de Janeiro, Brazil, conducting experiments on language comprehension in speakers of Brazilian Portuguese. Brazilian Portuguese has linguistic features that allow tests of current models of language/memory interactions that are not possible in English. Pedro completed three experiments, and these were already presented at the leading international conference in psycholinguistics. This work is ongoing, and has led to a strengthened connection between the research groups in Maryland and Rio de Janeiro. In addition to his experiments, Pedro taught a mini-course on data analysis methods for graduate students in Rio, similar to the course that he taught to our own students during our Winter Storm workshop. This experience was valuable for Pedro and for the Brazilian students alike.

Training Experience/Component 2
Dave Kush spent a month in Gothenburg, Sweden, conducting linguistic experiments that sought to better understand why Swedish allows apparent exceptions to linguistic 'near-universals'. Dave conducted three experiments during his time in Sweden, all designed to test a theory of the exceptional status of Swedish that he had developed using a small sample of informants in the US. His experiments in Sweden confirmed some of his hypotheses, and revealed that some of his hypotheses needed further elaboration. Dave also gave a talk about his research to his Swedish hosts. An 'added value' component of this research experience is that Dave was working closely with hosts who have a rather different perspective on the problem that he was investigating. This provided valuable experience in working across theoretical and academic/cultural borders.

**Training Experience/Component 3**

Candise Chen, Brian Dillon, and Wing Yee Chow all conducted research at the National Key Laboratory of Cognitive Neuroscience at Beijing Normal University during Summer 2009. Candise and Brian were supported in part by NSF-EAPSI fellowships. They conducted a number of experiments on different features of Chinese language learning and language processing, and they developed partnerships with two different labs at BNU. The research has already led to presentations at prominent conferences and to submitted manuscripts. In addition, the fortuitous fact that students from different Maryland programs found themselves at the same Chinese university during the summer helped to create closer ties between the Departments of Human Development and Linguistics at the U of Maryland.

**Research/Educational Achievement 1**

Results from the studies that students conducted in Beijing, China in Summer 2009 have already generated a number of conference presentations, one submitted paper, and at least two further papers that will be submitted in the near future. One set of findings concerns the processing of long-distance reflexives in Chinese (counterparts of English words like 'himself'). Brian Dillon and Wing Yee Chow's studies use these words as probes for understanding how comprehenders access structured memory representations. Their findings challenge currently popular views about the pervasiveness of parallel memory access mechanisms. Wing Yee Chow's electrophysiological findings on the comprehension of syntactically natural but semantically anomalous sentences in Mandarin provide important evidence on the interplay of different components of the language processing architecture.

**Research/Educational Achievement 2**

Pedro Alcocer's studies in Rio de Janeiro, Brazil, led to theoretically important findings on the nature of memory access in sentence understanding. These results were presented at a leading psycholinguistics conference in March, 2010, and the studies are being developed further.

**Research/Educational Achievement 3**

Our IGERT project's collaboration with Hiroshima University, Japan, has contributed to the success of our Hiroshima colleagues in securing an award from the Japanese counterpart of NSF to support reciprocal connections between Hiroshima University and the University of Maryland. Over a number of years the Hiroshima group has hosted Maryland students for research on Japanese. Most recently, IGERT-affiliate Akira Omaki, together with undergraduate researcher Imogen Davidson White, carried out a series of studies in Hiroshima in January, 2010. PI Colin Phillips visited Hiroshima and gave talks to their group in November 2009. The Hiroshima group now has funding that will allow expanded opportunities for international exchanges between the two universities.

**Is international participation required for all trainees involved in your IGERT project?**

No

**Did one or more trainees from your IGERT project engage in an international experience through the project during this reporting period?**

Yes

**Specific International Experiences - Experience Detail 1**

**Country:**

Brazil

**Trainees involved:**

Pedro Alcocer

**Which of the following international actions or work in this country involved trainees?**

<table>
<thead>
<tr>
<th>Action</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees attended conferences/workshops.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees undertook coursework/training.</td>
<td>No</td>
</tr>
</tbody>
</table>
Trainees worked, conducted research/field work, or interned in industrial settings. No

Trainees worked, conducted research/field work, or interned in academic settings. Yes

Trainees worked, conducted research/field work, or interned in other settings (e.g., national laboratories, nongovernmental organizations). No

Other international actions/work. : Conducted experiments, taught a mini-course, developed partnerships Yes

**Specific International Experiences - Experience Detail 2**

**Country:**
Russia

**Trainees involved:**
Ann Gagliardi

<table>
<thead>
<tr>
<th>Which of the following international actions or work in this country involved trainees?</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees attended conferences/workshops.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees undertook coursework/training.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in industrial settings.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in academic settings.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in other settings (e.g., national laboratories, nongovernmental organizations).</td>
<td>Yes</td>
</tr>
<tr>
<td>Other international actions/work.</td>
<td>No</td>
</tr>
</tbody>
</table>

**Specific International Experiences - Experience Detail 3**

**Country:**
Spain

**Trainees involved:**
Sunyoung Lee-Ellis

<table>
<thead>
<tr>
<th>Which of the following international actions or work in this country involved trainees?</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees attended conferences/workshops.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees undertook coursework/training.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in industrial settings.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in academic settings.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in other settings (e.g., national laboratories, nongovernmental organizations).</td>
<td>No</td>
</tr>
<tr>
<td>Other international actions/work.</td>
<td>No</td>
</tr>
</tbody>
</table>

**Specific International Experiences - Experience Detail 4**

**Country:**
Sweden

**Trainees involved:**

https://www.igertweb.org/controllers/link.cfc?method=print_preview&...cessLevel=pi&session_id=023574687081627349025597&javascript_flag=T
**Dave Kush**

**Which of the following international actions or work in this country involved trainees?**

<table>
<thead>
<tr>
<th>Action</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees attended conferences/workshops.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees undertook coursework/training.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in industrial settings.</td>
<td>No</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in academic settings.</td>
<td>Yes</td>
</tr>
<tr>
<td>Trainees worked, conducted research/field work, or interned in other settings (e.g., national laboratories, nongovernmental organizations).</td>
<td>No</td>
</tr>
<tr>
<td>Other international actions/work. : Conducted experiments, presented talks, developed research partnerships</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Award ID: 0801465**

**IGERT Project Features - Partnerships/Collaborations**

**PI: Phillips, Colin - Reporting Year: 2010**

**Were there active partnerships/collaborations outside of your university through your IGERT project during this reporting period?**

Yes

**Academic Partner 1**

**Active Status**

Yes

**Partner Name**

Gallaudet University

**Type of partner**

Ph.D.-granting institution

Minority-serving institution

**Funding arrangement for this partner**

Partner provides funding to the IGERT project for research, curriculum, or other project activities, but not directly for trainees.

**Activities for this partner/institution**

**Collaborative Research/Teaching:** Partner organization's personnel work with IGERT project staff on collaborative research/teaching.

**Personnel Exchange:** IGERT Trainees and/or partner organization personnel use each other's facilities or work at each other's sites on an ad hoc or as-needed basis.

**Our partnership with Gallaudet University and its VL2 Center, an NSF Science of Learning Center, has developed in a**
number of ways this year. (i) Maryland student So-one Hwang has partnered with deaf students and faculty from Gallaudet to form a project team that is investigating the perception of time-reversed sign language (speakers watch videos of signers in which successive chunks of 100ms, 200ms etc. of video are played backwards; the results are strikingly comprehensible). This provides a powerful tool for understanding the temporal integration windows for language perception. (ii) So-one's work led to submission of a joint NSF proposal on this research. (iii) The U of Maryland sponsored a 3-day seminar in November 2009 by prominent sign language researcher Karen Emmorey, which attracted a broad audience of deaf and hearing researchers, and exposed Maryland language experts to current sign language research.

Academic Partner 2

Active Status
Yes

Partner Name
Northwood High School

Type of partner
K-12 institution

Funding arrangement for this partner
No funding/direct financial interaction is involved in this partnership.

Activities for this partner/institution

Collaborative Research/Teaching: Partner organization's personnel work with IGERT project staff on collaborative research/teaching.

Activities for this partner/institution

Our program's partnership with Northwood High School expanded and improved this year. NHS is a local school that has a 70% minority student population. IGERT co-PI Jeff Lidz has visited NHS to make a presentation to around 150 students. Around 90 NHS students visited the U of Maryland for a half-day series of interactive workshops. The outcome for the high school students is that they gain exposure to a college experience, which is new for many of them, and learn valuable lessons about the link between research data and research conclusions. The outcome for the IGERT students who led the 10 concurrent activities is that they gain a broader perspective on the science that they are already engaged in, and think about how to get non-experts excited about research. This year's event made a number of improvements upon last year's event, based on a formative assessment process, and it was uniformly perceived as more successful. Students on both sides found the event to be energizing.

Academic Partner 3

Active Status
Yes

Partner Name
IGERT programs at Johns Hopkins U & UPenn

Type of partner
Ph.D.-granting institution

Funding arrangement for this partner
No funding/direct financial interaction is involved in this partnership.

Activities for this partner/institution

Collaborative Research/Teaching: Partner organization's personnel work with IGERT project staff on collaborative research/teaching.

Activities for this partner/institution

There are 3 IGERT programs in the mid-Atlantic region with a focus on different aspects of language science. As a part of our Winter Storm workshop we held a 1-day "I-95 Summit" on the learning of sound systems, that brought together
faculty and students from the three IGERT programs who work on related problems from different perspectives.

**Academic Partner 4**

**Active Status**
Yes

**Partner Name**
Beijing Normal University

**Type of partner**
Ph.D.-granting institution
Foreign-based institution

**Funding arrangement for this partner**
Partner provides funding to the IGERT project for research, curriculum, or other project activities, but not directly for trainees.

**Activities for this partner/institution**
Facilities: IGERT trainees use a partner organization's facilities for project activities.
Collaborative Research/Teaching: Partner organization's personnel work with IGERT project staff on collaborative research/teaching.

**Activities for this partner/institution**
Two of the lab groups that participate in our IGERT program sent students to Beijing Normal University for summer research projects, leading to a number of research presentations and papers.

**Academic Partner 5**

**Active Status**
Yes

**Partner Name**
Federal University of Rio de Janeiro

**Type of partner**
Ph.D.-granting institution

**Funding arrangement for this partner**
No funding/direct financial interaction is involved in this partnership.

**Activities for this partner/institution**
Facilities: IGERT trainees use a partner organization's facilities for project activities.

**Activities for this partner/institution**
Our partnership with UFRJ led to a research visit by graduate student Pedro Alcocer and undergraduate assistant Chris O'Brien, which generated useful results and has already led to conference presentations.

**Academic Partner 6**

**Active Status**
Yes

**Partner Name**
Hiroshima University

**Type of partner**
Ph.D.-granting institution
Foreign-based institution

**Funding arrangement for this partner**
No funding/direct financial interaction is involved in this partnership.

**Activities for this partner/institution**

**Facilities:** IGERT trainees use a partner organization's facilities for project activities.

**Personnel Exchange:** IGERT Trainees and/or partner organization personnel use each other's facilities or work at each other's sites on an ad hoc or as-needed basis.

**Activities for this partner/institution**

(i) Research in Hiroshima by U of Maryland students led to conference presentations. (ii) The existing partnership between the Maryland and Hiroshima groups helped the Hiroshima group to secure reciprocal funding from the Japanese counterpart of NSF to support research visits to the US.

---

**Academic Partner 7**

**Active Status**
Yes

**Partner Name**
University of Tromsø

**Type of partner**
Ph.D.-granting institution
Foreign-based institution

**Funding arrangement for this partner**
Other : Partial support from partnership between Norwegian Science Foundation and NSF’s Graduate Research Fellowship program

**Activities for this partner/institution**

**Facilities:** IGERT trainees use a partner organization's facilities for project activities.

**Collaborative Research/Teaching:** Partner organization's personnel work with IGERT project staff on collaborative research/teaching.

**Activities for this partner/institution**

IGERT trainee Annie Gagliardi has spent two summers conducting fieldwork on language development in Dagestan, Russia, but the environment there has become too dangerous for her to return. As a result, we developed a new partnership with the University of Tromsø, in the far north of Norway, which hosts a national center of excellence in language and has one of Europe's leading language research groups. The outcome to-date of this partnership is that Gagliardi has secured a supplemental award through NSF's Graduate Research Fellowship program, which this year started a new partnership with the Norwegian Science Foundation. This award will allow Gagliardi to spend part of Fall 2010 working in the lab of Prof Marit Westergaard in Tromsø.

---

**Government Partner 1**

**Active Status**
Yes

**Partner Name**
National Institutes of Health

**Type of government agency**
U.S. Federal laboratory or research facility

**Funding arrangement for this partner**

---

https://www.igertweb.org/controllers/link.cfc?method=print_preview&...cessLevel=pl&session_id=023574687081627349025597&javascript_flag=T
Partner provides funding to the IGERT project for research, curriculum, or other project activities, but not directly for trainees.

Activities for this partner/institution

Facilities: IGERT trainees use a partner organization’s facilities for project activities.

Collaborative Research/Teaching: Partner organization's personnel work with IGERT project staff on collaborative research/teaching.

Personnel Exchange: IGERT Trainees and/or partner organization personnel use each other's facilities or work at each other's sites on an ad hoc or as-needed basis.

IGERT affiliate Nuria Abdulsabur has completed functional MRI brain imaging studies on language comprehension. IGERT trainee Joshua Riley has been able to use this partnership as the basis for a lab rotation involving research on stuttering and 'foreign accent syndrome'.

Government Partner 2

Active Status
Yes

Partner Name
Center for Advanced Study of Language

Type of government agency
U.S. Federal laboratory or research facility

Funding arrangement for this partner

Partner provides funding to the IGERT project for research, curriculum, or other project activities, but not directly for trainees.

Other: CASL provides research supervision and financial support for projects involving IGERT trainees. It also provides partial funding and research supervision for some IGERT Associate students who are full participants in our program.

Activities for this partner/institution

Facilities: IGERT trainees use a partner organization’s facilities for project activities.

Collaborative Research/Teaching: Partner organization's personnel work with IGERT project staff on collaborative research/teaching.

Personnel Exchange: IGERT Trainees and/or partner organization personnel use each other's facilities or work at each other's sites on an ad hoc or as-needed basis.

Internships: IGERT Trainees work in a partner's facilities specifically as interns.

Activities for this partner/institution

Links between our IGERT project and CASL are strengthening in a number of ways. (i) A research project involving two IGERT students (Erika Hussey, Susan Teubner-Rhodes) and faculty from Psychology (Michael Dougherty) and CASL (Jared Novick) led to a research presentation at an international psycholinguistics conference. CASL contributed essential expertise in language processing to this project. (ii) CASL played a key role in securing new faculty with language expertise for the Dept of Psychology, by co-sponsoring an appointment for Dr Robert Slevc (Rice University). This will significantly enhance the participation of both CASL and Psychology in our program's future efforts. (iii) CASL's support has enabled the establishment of the new Maryland Neuroimaging Center, which will expand brain imaging opportunities for IGERT participants. The center is funded in part by an NSF Major Research Instrumentation award, on which 3 of the 5 co-PIs are IGERT faculty.
Do you have an overall plan with milestones and timelines for measuring progress toward attaining key IGERT project goals?  
Yes

If your IGERT project paid for professional evaluation services external to the IGERT institution or used expertise internal to your institution to aid in the evaluation process, please share contact information.

Organization/individual name  
Sharon La Voy

Address  
Office of Institutional Research, Planning and Assessment, 1101 Mitchell Building, College Park, MD 20742

E-mail address  
slavoy@umd.edu

Phone  
3014053828

Web site  
www.irpa.umd.edu

Was this an external evaluation service provider?  
No

Please describe a key insight, and your response to it (if any), that has been identified through assessment and evaluation during this reporting period.

Insight/Learning  
During the current reporting period we have scheduled and carried out two assessment activities: a survey for the participants and organizers of the Winter Storm training workshop, and a student focus group. Reports from both of these assessment activities revealed that students would like a clearer communication of what the goals of the IGERT program are and, subsequently, how each activity fits within the broader program goals. From these comments we've learned that program administrators should not assume that all students have thorough familiarity with the goals of the program, or with the assumptions that these goals were based upon.

Response  
Each student in the program should have a clear understanding of the program goals and have available to them various forums to discuss and constructively question these goals -- all in order to achieve thorough understanding of the importance of interdisciplinary language research. In this direction we will arrange for more time for such discussion within our events or individual meetings with IGERT students. We are in the process of creating expanded on-line information on the program for students.
Please consider your responses to the following in light of changes/impacts that have occurred in your institution as a result of your IGERT project during this reporting period.

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>The institution(s) involved in your IGERT project has/have been successful in obtaining large-scale Federal grants (e.g., STC, ERC, MRSEC).</td>
<td>No</td>
</tr>
<tr>
<td>Interdisciplinary/multidisciplinary courses have been developed for IGERT Trainees and Associates.</td>
<td>Yes</td>
</tr>
<tr>
<td>Interdisciplinary/multidisciplinary courses are being delivered to IGERT Trainees and Associates.</td>
<td>Yes</td>
</tr>
<tr>
<td>Interdisciplinary/multidisciplinary courses that have been developed for IGERT are being delivered to non-IGERT students.</td>
<td>Yes</td>
</tr>
<tr>
<td>New certificate or degree programs have been developed and are available on the IGERT campus(es).</td>
<td>No</td>
</tr>
<tr>
<td>Department curriculum or policy changes took place to emphasize or require interdisciplinary/multidisciplinary preparation for all graduate students.</td>
<td>Yes</td>
</tr>
<tr>
<td>Institutional changes that support and encourage team multidisciplinary/interdisciplinary course development and teaching have occurred.</td>
<td>Yes</td>
</tr>
<tr>
<td>Institutional changes that support and encourage team-based graduate student learning and assessment have occurred.</td>
<td>No</td>
</tr>
<tr>
<td>Institutional changes that support and encourage graduate students to gain laboratory and research experiences across disciplines have occurred.</td>
<td>No</td>
</tr>
<tr>
<td>Institutional changes incorporating improved recruitment and retention policies and practices for underrepresented groups and women based on IGERT have occurred.</td>
<td>No</td>
</tr>
<tr>
<td>Other:</td>
<td>No</td>
</tr>
</tbody>
</table>

Please describe a demonstrable institutional change (if any) that has occurred during this reporting period due to IGERT

Several faculty groups who are preparing IGERT proposal submissions on the UMD campus have consulted with our team leaders on best practices and achievements, in order to craft a successful program/proposal. The campus climate has changed to accommodate interdisciplinary programs like the NSF-IGERT, and this has led to a more competitive UMD-internal competition to select the four teams whose proposals are allowed to advance to the NSF competition.

Printed: Apr 29, 2010

---

**Award ID: 0801465**

**Comments**

**PI: Phillips, Colin - Reporting Year: 2010**

No data has been entered.

---

https://www.igertweb.org/controllers/link.cfc?method=print_preview&...cessLevel=pi&session_id=023574687081627349025597&javascript_flag=T Page 58 of 66
Award ID: 0801465  
Publications, Patents, and Presentations  
PI: Phillips, Colin - Reporting Year: 2010

Journal Articles in Refereed Publications


Journal Articles in Non-Refereed Publications


Books


Book Chapters

Conference Publications


Proc. of the IEEE Intern. Conf. on Acoust., Speech and Sig. Proc., 4497-4500.

Conference Presentations


America annual meeting, Baltimore, MD.