Evaluating International Research Experiences for Graduate Students

A Report from the 2016 CGS-NSF-DFG Workshop

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Executive Summary

The Council of Graduate Schools (CGS), the Division of Graduate Education (DGE) and the Office of International Science and Engineering (OISE) at the National Science Foundation (NSF), and the North American Office of the Deutsche Forschungsgemeinschaft (German Research Foundation, DFG) held a joint, one-day workshop on February 16, 2016 at the NSF in Arlington, VA to discuss evaluation of international research experiences for graduate students. The workshop brought together 55 international participants to present the current state of knowledge on assessing international research experiences and formulate a set of recommendations for program administrators to use in evaluating the effectiveness of these activities. The driving forces for this workshop were both pragmatic and programmatic: a need from funding agencies to justify the investment in international research activities that send student-citizens abroad; and a desire to better understand the impact international research experiences have on individual career and STEM workforce development. Thus, the workshop structure highlighted both program and participant assessment and evaluation. Key findings include an increased interest in continuing international research collaboration by graduate student participants in the NSF Partnerships in International Research and Education (PIRE) programs; a potential link between the networking opportunities international experiences provide and career success; and a continuing difficulty of documenting the development of global competencies that international experiences provide. More robust research data was identified as a need from structured conversations between the workshop participants, along with research questions related to the value of international experiences, their impact on career development, their timing and duration, and barriers to participation by under-represented groups.

As a result, the Advisory Committee has formulated the following set of recommendations:

1. Federal agencies and organizations that support international research collaborations – for either individuals or groups of students – should:
   a. require systematic reporting of specific student outcomes as part of the project evaluation.
   b. also support foundational research studies that evaluate the long-term impact of international research experiences on participants' research careers and the global preparedness of the workforce.
   c. provide statistics and information on U.S. students engaging in credit and non-credit activities abroad by degree level whenever possible.
2. Funding agencies should support early career researchers who have previous international research experiences in order to build and maintain support networks at their home institutions.
3. Institutions that support international activities at the graduate level should incorporate long-term participant career tracking into their formative and summative assessment activities.
4. Principal investigators on collaborative international research projects should have embedded assessment and evaluation protocols for measuring the impact of their activities on participant career development, future leaders' personal development, and global citizenry.
5. Graduate students who participate in international experiences should be prepared not only to participate in long-term evaluation projects, but also to share their experiences with their peers and colleagues in formal and informal settings.

Introduction

Evaluating the impact of funding for graduate student international research experiences on student success remains an important endeavor, both in the short and long terms. This interest is driven by a need from funding agencies to validate their investment in international research collaboration, and from the graduate education community that desires a deeper understanding of career pathways and professional ecosystems in order to affect programmatic change.

According to NAFSA, over 300,000 U.S. students participated in credit-bearing activities abroad in 2013-14[1]. The percentage of those credit-bearing activities at the post-baccalaureate level is unknown, but anecdotal information suggests that it is small. More common at the graduate level are international activities that involve a non-credit research experience. These activities can take several forms and are of variable duration. The U.S. National Science Foundation (NSF) has several programs that support international research experiences for pre-doctoral students, as do other federal agencies. For example, the Fulbright U.S Student Program at the U.S. Department of State sends about 1600 post-baccalaureate students abroad annually. The Fogarty International Center at the U.S. National Institutes of Health (NIH) provides pre-doctoral international research experiences, primarily through the support of collaborative global health research projects. The Department of Education, Centers for Disease Control and Prevention, and the Agency for International Development are additional examples of U.S. federal funding agencies that directly or indirectly support international research activities for graduate students. Non-profit organizations such as the American Association for the Advancement of Science (AAAS) and international partners such as the German Academic Exchange Service (DAAD) and the Japan Society for the Promotion of Science (JSPS) also invest time and resources in supporting international experiences for pre-doctoral students. Despite these numerous programs to promote international experiences at the graduate level, there is little published information on the impact these activities are having on career development, workforce development, or the economy.

The Council of Graduate Schools (CGS), the Division of Graduate Education (DGE) and the Office of International Science and Engineering (OISE) at NSF, and the Washington Office of the Deutsche Forschungsgemeinschaft (German Research Foundation, DFG) held a joint one-day workshop on February 16, 2016 at the National Science Foundation to discuss evaluation of international research experiences for graduate students. The workshop brought together 55 participants from the United States, Canada, Germany and Japan from governmental agencies, institutions of higher education, non-governmental agencies related to graduate education and international education, international research collaboration participants, and researchers from the educational assessment community. The purpose of this workshop was to bring together funding agencies, international research collaborators, and the assessment community in order to review the current state of knowledge on evaluating international research experiences for graduate students, and to develop a set of recommendations on how these evaluative activities can be expanded and routinized where possible. The workshop was divided into sections on "What We Know" and "What We Can Do Better."

[1] A post-workshop report from the Institute of international Education (IIE) reports on Non-Credit Education Abroad (NCEA), but does not specifically cite research as a non-credit education activity and does not break out statistics by degree level.

What We Know

No attempt was made to catalogue or review the numerous opportunities that exist for graduate students to engage in international research experiences. Rather, flagship programs from key funding agencies were highlighted as they provide the most recent and robust examples of program evaluation. Perspectives from the funding agencies and institutions that support them, the investigators who plan them, and the participants who travel abroad were the focus of the first part of the workshop.

The NSF PIRE Program

Carter Epstein of Abt Associates reported on their evaluation of the NSF Partnerships in International Research and Education (PIRE) program (Martinez, Epstein, & Parsad, 2015). The PIRE program has been in existence since 2005 and has provided support for over 60 collaborative research projects, typically for five years each at a cumulative funding level of $2.5 – $5M. For this study, Abt selected participants from the 59 PIRE projects funded through 2013, and from a comparison group of 55 non-PIRE, NSF-funded projects in which an international collaboration is not required. The purpose of the evaluative study was broad, but from the standpoint of graduate student participation, the primary goals were to evaluate participant experiences and research productivity before and after the project. In this context, the following findings are relevant:

- PIRE graduate students had a higher average number of annual post-award publications than their comparison group peers.
- Over 75% of PIRE graduate students traveled outside the U.S. in comparison to 17% of participants in comparison projects. Further, PIRE graduate students were more likely than their counterparts in comparison projects to have traveled abroad to conduct research.
- PIRE graduate students were more likely to report maintaining international collaborations than comparison project participants (see Figure 1), and commonly these relationships continued to focus on research-related exchanges.

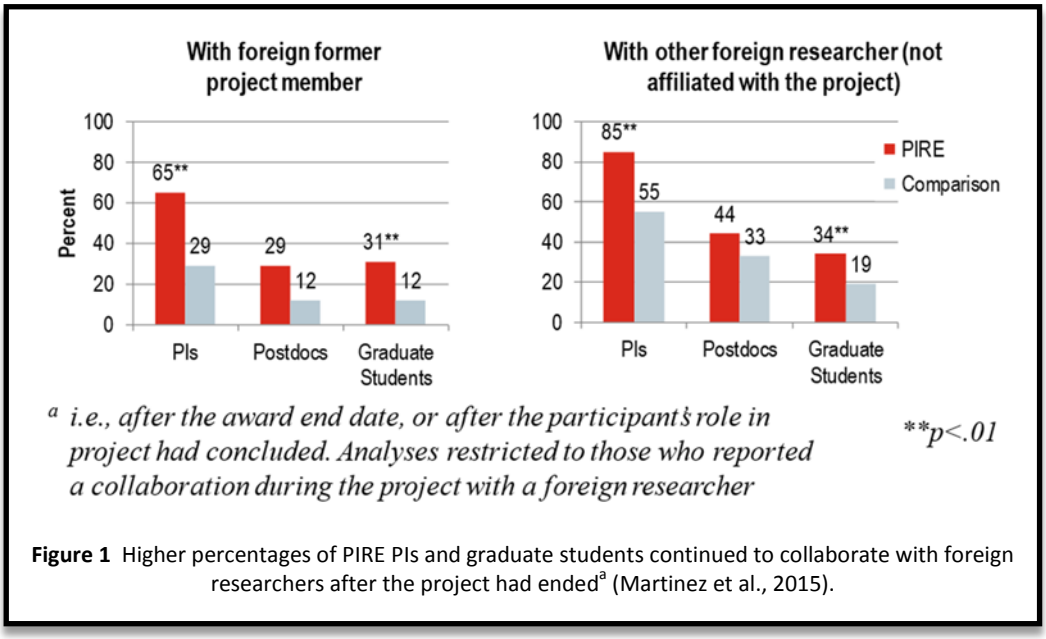

Figure 1 Higher percentages of PIRE PIs and graduate students continued to collaborate with foreign researchers after the project had ended[a] (Martinez et al., 2015).

- PIRE graduate students would recommend their peers engage in international research and education because of the benefits associated with learning from and working with international collaborators, cultural and social exchange; enhanced professional networking, and skills and knowledge development.

The DFG IRTG Program

Sebastian Granderath of DFG gave an overview of the International Research Training Group (IRTG) 2015 evaluation (Heidler, 2015). The program Research Training Groups (RTGs) was initiated by DFG in 1990 as a way to provide a more structured approach to doctoral education and counteract the one-to-one apprentice-based model. German universities could apply for RTGs comprising groups of ca. 5 senior researchers for about 15 doctoral stipends and 9 years of continuous funding. The program variant International Research Training Groups (IRTGs) was introduced in 1997 as a mechanism for promoting bilateral cooperation between two sites with complementary funding. A mandatory international experience of at least 6 months is required for graduate students, known as the "mobility phase" of the project (see Figure 2). As of 2013, approximately 20% of RTGs were IRTGs (40 of 190 total), with the largest number of collaborations in Canada.

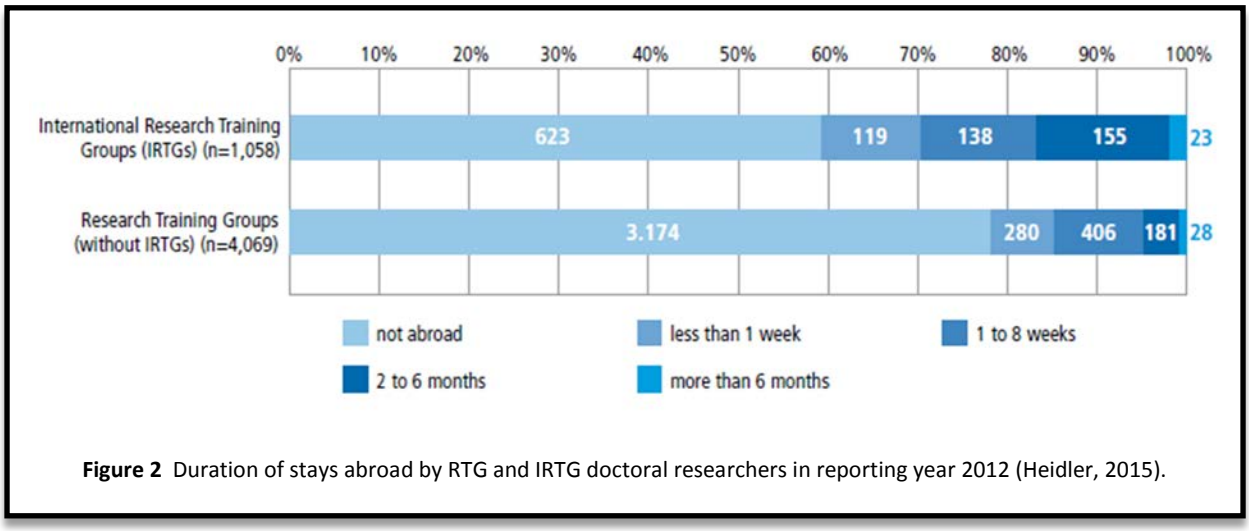

Figure 2 Duration of stays abroad by RTG and IRTG doctoral researchers in reporting year 2012 (Heidler, 2015).

An interesting finding of program evaluation was that the IRTG mobility phase added value for the scientific, personal and career development of participants without prolonging time-to-degree. Specifically, IRTG graduate students were slightly more likely to take an international postdoctoral appointment, similar to PIRE program participants. There is insufficient data in this evaluation to determine the effect of international experiences on such common metrics as time-to-degree and publication rate.

The EUA FRINDOC Project

Thomas Jørgensen, Head of the Council for Doctoral Education at the European University Association (EUA) gave an overview of EUA's "Framework for the Internationalisation of Doctoral Education" (FRINDOC) project which provides a structure for talking about internationalization of doctoral education beyond the mobility discussion. The EUA is a non-governmental member organization of 850 universities in 47 countries, of which the Council for Doctoral Education is a part. The highest priority of internationalization efforts by the EUA is to attract international graduate students. To this end, the FRINDOC project is organized into four categories: Mobility; Research Capacity; Institutional Structures; and International Profile. The project is still under development to results are not yet available, but Dr. Jørgensen provided an overview of the web-based self-assessment tools that are currently available to institutions (FRINDOC Self-Evaluation Report,).

Globalization: An Institutional Perspective

Karen DePauw, Vice President and Dean of Graduate Education at Virginia Tech gave an overview of graduate-level globalization activities at a US higher education institution. Virginia Tech is looking beyond the direct mobility of students and is investigating innovative ways of providing international experiences to students who do not have travel opportunities, a.k.a. "internationalization at home." She enumerated institutional barriers to international activities, including financial aid limitations while students are abroad, time away from a student's primary research project, and institutional concerns about return on investment. Universities should document the purpose of internationalization and establish guidelines for assessing the impact of internationalization efforts.

The Participant Perspective

> *"My international experiences completely changed the way I think about science and scientists."*
>
> Kara Spiller, Assistant Professor, Drexel University

Three recent international research participants presented their perspectives on the value of their international experiences. **Kara Spiller**, Assistant Professor of Biomedical Engineering at Drexel University; **Andrea Stith**, Assistant Director for Interdisciplinary Education at the University of Colorado-Boulder; and **Lisa Deuse**, a German national currently completing a research stay at the University of Pennsylvania in the IRTG program with the RWTH Aachen University, gave their perspectives on their international experiences in China, Portugal, Germany and here in the United States. Their reasons for going abroad as doctoral students and recent PhDs included a desire to learn about other systems of higher education, and opportunities for personal growth. There were two common observations from these past participants in international research collaborations: all mentioned "increased confidence" as a key outcome of their experiences; all said they would not have been able to go without financial support. Their recommendations on the duration of the international experience varied, depending mostly on the timing of the experience (mid-PhD vs. post-PhD), but all agreed that a minimum of 6 months was necessary to achieve the desired benefits. Their advice to those seeking to evaluate international experiences is to survey students before and after the experience, and to require progress reports.

The PI Perspective

Two Principal Investigators (PIs) of international research collaborations funded by mechanisms described earlier in the workshop gave their perspectives on how these projects can transform the graduate student educational experience. **Gerhard Erker**, Professor of Chemistry at the University of Münster in Germany and PI of a DFG-funded IRTG with Nagoya University in Japan described how 60 doctoral students each spent 6 months in Japan over a nine-year project period. In return, 35 students from Japan spent 6 months at the University of Münster during the same time period. Dr. Erker's primary conclusion is that although most chemistry PhDs in Germany find industrial positions, those in the IRTG had an employment advantage because of their international experience. **Judith Kroll**, Professor of Psychology, Linguistics, and Women's Studies at Pennsylvania State University described the PIRE program on bilingualism, mind, and the brain. Their domestic and international partner institutions are numerous, and the international component arises naturally from specific investigator interactions. All graduate student researchers are required to spend 8 weeks abroad which may be performed either during the semester or in the summer. Drs. Kroll and Erker both cited several key benefits to graduate students participating in the program: the ability to be part of a cohort of international students that can serve as both peers and mentors; and accelerated professional development that helps build their professional network more quickly. Both also emphasized the importance of the research projects driving the international experiences rather than the other way around.

> *"…having had the experience of conducting international research made me more competitive on the job market and showed my subsequent employers that I can adapt to different data collection systems and environments. This experience also highlighted the cultural differences between the US and Europe and was influential in geographical considerations when applying for jobs."*
>
> Penn State PIRE Participant (PhD 2013, Communication Sciences and Disorders and Language Science)

What We Can Do Better

The second half of the workshop was devoted to presenting perspectives of researchers who study international research activities. The goal of these presentations was to describe existing tools and models that can be used to evaluate international research experiences for graduate students. These results were then discussed by all workshop participants in a structured group activity called the "Conversation Café."

Assessment and Evaluation of Global Competencies

Workshop participants heard from **Cheryl Matherly**, Vice Provost for Global Education at the University of Tulsa, and **Mary Besterfield-Sacre**, Associate Professor at the University of Pittsburgh, as they described their ongoing efforts to quantify the global preparedness of engineering students in their NSF-funded projects. Key to their studies is the use of control groups–in this case, students who had not participated in international experiences— in order to make comparisons of global preparedness, primarily at the undergraduate level. They cited their use of mixed methodologies, specifically their use of Delphi studies to enumerate the essential components of international experiences that lead to global preparedness. They outlined the numerous resources already available for assessing specific aspects of an international experience including language proficiency, global competencies and working in international teams (see Table 1). A more complete list and additional detail can be found in *The SAGE Handbook of Intercultural Competence* (Deardorff, 2009). Drs. Matherly and Besterfield-Sacre

Table 1 A sampling of online global competency evaluation resources. Adapted and updated from (Deardorff, 2009).

Title and Link	Assessment Target
Australian Second Language Proficiency Ratings (ASLPR)	Language proficiency
American Council on the Teaching of Foreign Languages (ACTFL) Proficiency	Language proficiency
Beliefs, Events, and Values Inventory (BEVI)	Personal disposition toward transformational experiences
Cross-Cultural Adaptability Inventory (CCAI)	Cross-cultural workplace adaptation
Culture in the Workplace Questionnaire	Cross-cultural workplace adaptation
Global Perspective Inventory (GPI)	Individual global perspective
Global Team Process Questionnaire (GTPQ)	Global teams effectiveness and productivity
International Assignment Profile (IAP)	Potential success for an international assignment
Intercultural Development Inventory (IDI)	Orientation to cultural differences
International Mobility Assessment (IMA)	Potential success for an international assignment
INCA Project	Intercultural competence
Intercultural Readiness Check (IRC)	Intercultural Skills
Objective Job Quotient System (OJQ)	Cross-cultural performance
Peterson Cultural Style Indicator (PCSI)	Cross-cultural awareness and effectiveness
Schwartz Value Survey (SVS)	Cross-cultural awareness and effectiveness
Tests for Hidden Bias	Unconscious prejudices

recommended a simple two-step process for determining which assessment tool to use. First, determine the measurable outcomes, attributes, and objectives that are important to your international activity. Then, determine the instrument that best measures the desired outcomes.

Impact of International Research Experiences on Career Success

Doris Rubio, Director of the Center for Research on Health Care at the University of Pittsburgh outlined the "career success model" that she and her collaborators have developed to model the impact of a wide variety of life and training experiences on the careers of clinician-scientists (Rubio et al., 2011). As shown in Figure 2, both personal and organizational factors can impact career success, which can be assessed in terms of extrinsic and extrinsic measures. A key preliminary finding is that the "networking" factor plays a measurable role in determining career success. As noted by earlier speakers, international activities can positively influence networking opportunities. Dr. Rubio's studies suggest that there is a link between the networking benefits international experiences provide and long-term career success; e.g., ten years after obtaining non-terminal employment in a career of choice.

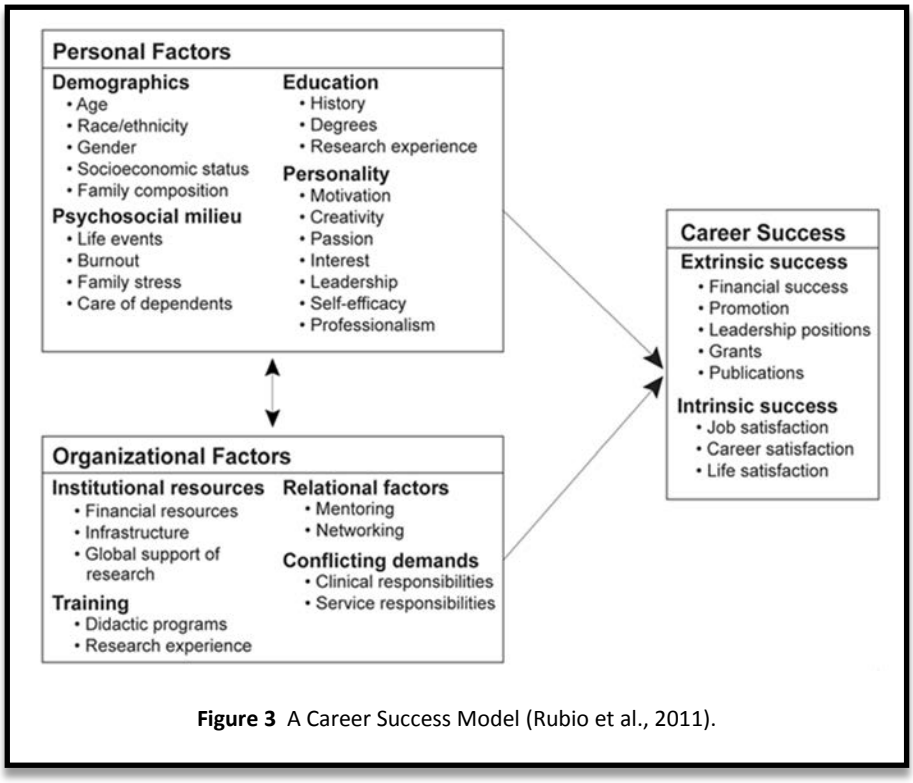

Figure 3 A Career Success Model (Rubio et al., 2011).

Conversation Café

1. *What questions would you like to see answered in the context of international research questions for graduate students?*
2. *From your perspective, what is the best approach to evaluate international research experiences for graduate students?*

Maresi Nerad, Director of the Center for Innovation and Research in Graduate Education (CIRGE) at the University of Washington then facilitated an interactive session of all workshop participants to determine key questions that should be asked in evaluating international experiences. The chosen format was a Conversation Café designed to actively draw upon the collective expertise of the workshop attendees. Participants were placed into groups of 4-5 people with similar interests (administrators, PIs, graduate students and postdocs, funders), and asked to develop questions that could be used to evaluate international research experiences for graduate students.

As a warm up to this activity, a brief presentation highlighting the outcomes of the 2011 NSF workshop on a related topic, Investigating the International Experiences in STEM Graduate Education and Beyond (Nerad & Blumenfield, 2012), was provided and one page handout with the final five key consensus research questions was distributed (See Appendix I). The 2011 suggested framework for design and assessment of before, during, and after an international experience was also distributed including an outcomes-oriented logic model incorporating the relevant stakeholders.

Groups brainstormed on two overarching questions (see inset):

Question 1: ***What questions would you like to see answered in the context of international research experiences for graduate students?***

The discussion focused on multiple dimensions and audiences. Many of the questions were similar and had overlapping purposes. In general, the key research questions fell into the following categories:

Value Added

- Does the research experience add value to graduate training and education, and if so, how?
  - Does it actually expand participants' networks of collaborators?
  - Does it give them access to new or different resources, facilities, people, or datasets?
  - Does it change the way a student approaches or conducts research?
  - How do these factors and outcomes vary by discipline?
- What is the return on investment to the student, advisor, institution, funding agency or society, and how do we distinguish between them?
- Are there competencies that are unique to international experiences and how could they be measured?

Career Impact

- How do the outcomes of an international research experience align with the students' professional development needs? Does it fill a gap?
- Does an international research experience favorably alter a student's career pathway?
- What are the long-term impacts of international experiences?
- How do employers perceive international experiences when hiring?

Barriers to Participation

- What are the strategies to incentivize/ensure adequate representation by and support of under-represented minority students?
- What are the deterrents and motivators to graduate students going abroad?
- How can technology contribute to or provide new forms of international research collaborations and experiences?

Timing and Duration

- Is graduate school the best time for an international research experience? Is it unique and sufficiently different from similar experiences at the undergraduate or post-doc level? If so, what are the differences?
- When is the optimal time for a graduate student to go abroad?
- How to best measure the comparative value of short, medium or long-term research stays (3, 6, or 12 or more months)?
- What are the influences of student age and prior experience on timing, duration, destination and purpose of the research visit?

Question 2: ***From your perspective, what is the best approach to evaluate international research experience for graduate students?***

All groups recommended a mixed method approach (both quantitative and qualitative) that includes longitudinal data collection and allows for differential analysis by demographics, discipline, and country. The specifically cited the following evaluative activities as critical:

- Both formative and summative evaluation
- Pre- and post-participation surveys
- Employer surveys
- Individual and group reflection (e.g., blogs, photo journals)
- Triangulating evidence (e.g., third-party ratings along with surveys to compare viewpoints)
- Measurement of specific indicators of intercultural adaptability.

Recommendations

The Advisory Committee has reviewed the results and discussions of this workshop, and has formulated the following set of recommendations for funding agencies, researchers, program organizers and participants:

1. Federal agencies and organizations that support international research collaborations – for either individuals or groups of students – should:
   a. require systematic reporting of specific student outcomes as part of the project evaluation.
   b. also support foundational research studies that evaluate the long-term impact of international research experiences on participants' research careers and the global preparedness of the workforce.
   c. provide statistics and information on U.S. students engaging in credit and non-credit activities abroad by degree level whenever possible.
2. Funding agencies should support early career researchers who have previous international research experiences in order to build and maintain support networks at their home institutions.
3. Institutions that support international activities at the graduate level should incorporate long-term participant career tracking into their formative and summative programmatic assessment activities.
4. Principal investigators on collaborative international research projects should have embedded assessment and evaluation protocols for measuring the impact of their activities on participant career development, future leaders' personal development, and global citizenry.
5. Graduate students who participate in international experiences should be prepared not only to participate in long-term evaluation projects, but also to share their experiences with their peers and colleagues in formal and informal settings.

Acknowledgments

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Workshop Agenda

8:30 AM **Welcome and Overview**
Brian S. Mitchell, Council of Graduate Schools/National Science Foundation Dean-in-Residence
Max Vögler, Director, North American Office, Deutsche Forschungsgemeinschaft (DFG)

8:45 AM **Session I: Funding International Research Experiences: Two Program Evaluations**
This session will focus on recent evaluations of funding programs relevant to the international research experiences for graduate students. The presenters will discuss the background of the programs, the reason for the evaluation, and give methods and results.

1. **Carter Epstein**, Abt Associates Inc
Ten Years of the Partnerships in International Research and Education (PIRE) Program
2. **Sebastian Granderath**, Program Director, International Research Training Groups, DFG
The International Research Training Group Program 2015 Evaluation

Moderator: **Denise Manahan-Vaughan**, Director of the International Graduate School of Neuroscience, Ruhr University Bochum, Germany

9:30 AM **Session II: International Research Experiences: The Institutional Perspective**
How do institutions and organizations support international research experiences for graduate students? How can they facilitate the assessment of international research experiences and how would they make use of these assessment results?

1. **Thomas Jørgensen**, Head, Council for Doctoral Education, European University Association
FRINDOC: Evaluating the Institution
2. **Karen DePauw**, Vice President and Dean of Graduate Education, Virginia Tech
International Research Experiences: Challenges and Opportunities for Graduate Students

Moderator: **Henning Schroeder**, Vice Provost & Dean of Graduate Education, U. of Minnesota

10:30 AM **Panel Discussion: International Research Experiences: The Participant Perspective**
Why do graduate students engage in international research experiences? How do they feel the experience has helped them scientifically and professionally? What were barriers and what are the opportunities that have developed later in their careers?

Kara Spiller, Assistant Professor, Drexel University
Andrea Stith, Assistant Director for Interdisciplinary Education, University of Colorado-Boulder
Lisa Deuse, IRTG Participant, Universities of Aachen/Pennsylvania
Moderator: **Julia Kent**, Assistant Vice President, Communications, Advancement and Best Practices, Council of Graduate Schools

11:15 AM **Session IV: International Research Experiences: The PI Perspective**

How do the labs and institutes in which the PI's work profit from sending/receiving graduate students with other institutions abroad? What are the benefits to students who participate in these programs? How do PIs track and evaluate participants?

1. **Gerhard Erker**, Professor, Organish-Chemische Institut, U. Münster, Germany
2. **Judith F. Kroll,** Distinguished Professor of Psychology, Linguistics, and Women's Studies, The Pennsylvania State University

Lessons from PIRE: An international network for graduate research and training in cognitive neuroscience and linguistics

Moderator: **Max Vögler**, Director, North American Office, DFG

1:00 PM **Session V: Tracking the Outcomes of International Research Experiences**

What assessment practices and evaluation tools are currently being used to evaluate international experiences at any level, and can they be adapted to research experiences at the graduate level? Are there existing models that can track the long-term impact of early international experiences on career success?

1. **Cheryl Matherly**, Vice Provost for Global Education, University of Tulsa
   Mary Besterfield-Sacre, Associate Professor, University of Pittsburgh

Measuring the Impact of Global Preparedness and Competency in Students

2. **Doris Rubio**, Director, Center for Research on Health Care, University of Pittsburgh

A Career Success Model

Moderator: **Rick Tankersley**, Program Officer, Division of Graduate Education, NSF

1:45 PM **Conversation Cafe: What Questions Should We Ask and How Should We Ask Them?**

Participants will be placed into groups with similar interests and will be asked to develop a set of relevant questions that could be used to evaluate international research experiences for graduate students. Instructions and handouts will be provided. Time will be provided for groups to share their results with all participants.

Facilitator: **Maresi Nerad**, Director, Center for Innovation and Research in Graduate Education, University of Washington

3:30 PM **Wrap Up: Open Discussion and Next Steps**

What should be the products of this workshop? What are the one or two things you would like to see coming out of this workshop as the next steps?

Suzanne Ortega, President, Council of Graduate Schools
Denise Manahan-Vaughan, Scientific Member, DFG Senate Committee on Research Training Groups
Moderator: **Dean Evasius**, Director, Division of Graduate Education, NSF

4:00 PM **Adjourn**

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Appendices

Appendix 1 Summary of Results from 2011 NSF Workshop

Center for Innovation and Research in Graduate Education

University of Washington, College of Education, Seattle

Investigating the International Experiences in STEM Graduate Education and Beyond:

Report from the February 2011 Workshop to Develop a Research Agenda

Maresi Nerad and **Tami Blumenfield**

We would like to thank the National Science Foundation for funding the grant proposal, *Investigating the International Experiences in STEM Graduate Education and Beyond: From Anecdotal to Empirical Evidence* (#105029).

Key 2011 Workshop Results for Assessment and Design of International Experiences at the Graduate Level

I. Link Objectives and Assessment

II. Consider a Before/ During / After Framework for Assessment

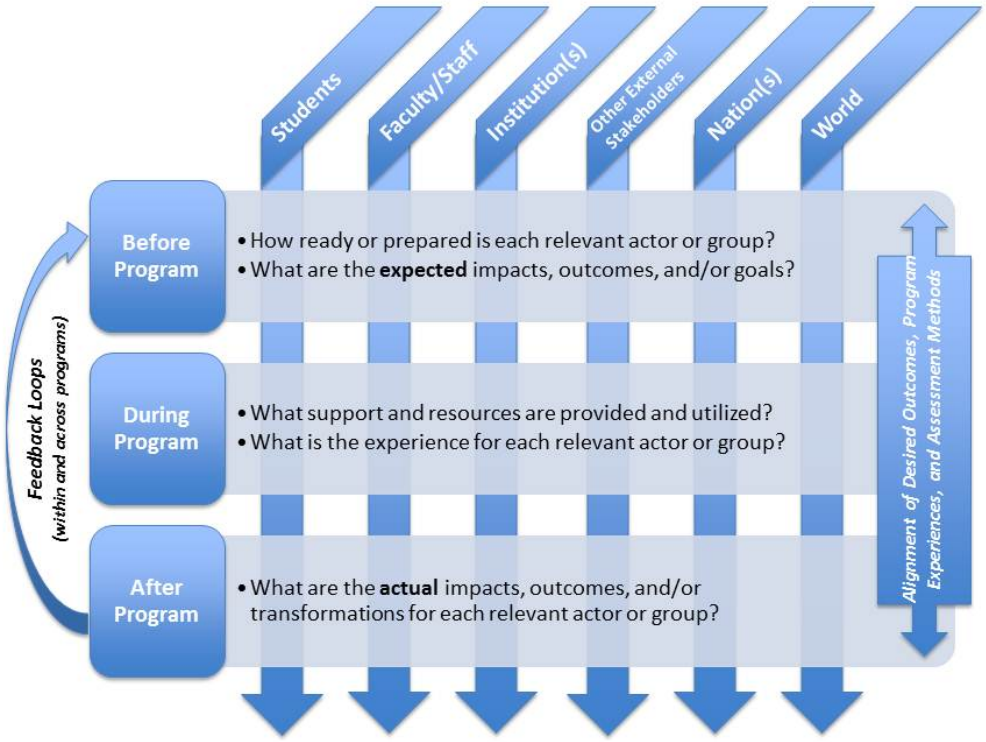
III. Prioritize Access

IV. Focus on Relationships

Consensus over key questions

1. Does international collaboration lead to better science/scientists?
2. Do current institutional and funding structures lead to missed opportunities for international collaboration? If so, how?
3. How can we assess institutional preparedness for international collaborations/ experiences?
4. What are the expected outcomes and goals of international experiences/collaborations? How are they established?
5. What are the actual impacts, outcomes, and transformation of the international experiences/collaborations?

Illustration of Assessment Framework



Above: Illustration of working group discussion framework (questions 4 and 5 above). Graphic developed by Brent K. Jesiek.

Assessment –Lessons Learned
(D. Deardorff 2011)

- Pitfall: Using a tool solely because someone else is
- Pitfall: Not having the support needed
- Pitfall: Trying to do too much or to do this alone
- Pitfall: Measuring what's easiest to measure
- Pitfall: Not assessing the assessment plan/process
- Pitfall: Not defining what we're measuring
- No one perfect tool or method!
- *Use data! (especially for student feedback)*
- *Quality assessment takes time and resources*