

High-Quality STEM Education for English Learners: Current Challenges and Effective Practices

Okhee Lee
University of Miami

United States Department of Education
Office of English Language Acquisition
July 11, 2011



ELs in the STEM Workforce

- English learners (ELs) comprise one in ten students in U.S. schools, and are projected to show continued growth in the years ahead.
- ELs present a unique opportunity for our educational system to develop a skilled, multilingual STEM workforce for the global economy of the 21st century.
- It is imperative that all students, including ELs, have access to STEM-rich content and opportunities to learn about and explore the many STEM-related fields and careers.

Emerging Issues

- High-stakes testing and accountability policies
- Common core standards in math
- Next generation science standards (in progress)
- Emerging research literature on promoting ELs' achievement in STEM subjects while supporting language development
- Emerging research literature on effective teacher preparation and professional development
- Scale-up of educational innovations
- “Funds of knowledge” from families and communities
- Connections between formal and informal education
- Funding opportunities from federal and private sectors



The Forum's Goals

- Data and research needs on ELs' STEM learning and achievement
- Effective practices for promoting ELs' achievement in STEM subjects
- Partnerships among schools, families/communities, and businesses to advance reform in STEM education for ELs
- Networking opportunities for educators and other professionals involved with STEM education for ELs



Agenda for the Day

Panel 1: Data and research

Panel 2: Teacher education and effective practices

Discussion of panels 1 and 2

Lunch break

Panel 3: Parent, family, and community engagement

Panel 4: Public and private partnerships

Discussion of panels 3 and 4

Closing remarks

Each panel consists of representatives of research, practice, professional organizations, and business in STEM disciplines.