

# SARA TOLBERT

Assistant Professor of Science Education

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## AREAS OF SPECIALIZATION/RESEARCH INTERESTS

Equity/ Access in Science Education, Preservice and Inservice Science Teacher Education, Cultural Studies of Science Education, Critical School Science, Indigenous Science, Comparative Science Education

## LANGUAGES

Spanish, Speak: Fluent, Read: Advanced, Write: Intermediate (3 years in Central America)

French, Speak: Intermediate, Read/Write: Intermediate (1 semester in Rennes, France)

## EDUCATION

Ph.D., University of California, Santa Cruz. June, 2011.

Social Context and Policy Studies. Department of Education.

Dissertation: *Teaching the content in context: Preparing "highly qualified" and "high quality" teachers for instruction in underserved secondary science classrooms.*

Committee: Trish Stoddart (chair), Doris Ash, Jerome Shaw, Alberto Rodriguez.

M.Ed., The University of Georgia, Athens, GA. 2006.

Middle School Education, Specialization: Science.

T-5 Teaching Credential with ESOL Endorsement, The University of Georgia, Athens, GA. 2006.

Middle Grades (4-8) Science, Middle Grades (4-8) Social Studies, ESOL Endorsement, The University of Georgia.

Consortium of Overseas Student Teachers (COST), Auckland University, Papatoetoe, New Zealand. 2006.

B.A., University of Colorado, Boulder. 1996.

Environmental Studies.

January 1996 to May 1996, Council for International Educational Exchange (CIEE),  
L'Universite de Haute Bretagne, Rennes, France.

## RESEARCH EXPERIENCE

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**2009-2011: Teaching the Content in Context.** *Dissertation Research Study.*  
*Principal Investigator.*

**2008 - 2011: Effective Science Teaching for English Language Learners (ESTELL),**  
Funded by National Science Foundation's (NSF) K-12 Discovery Research Grant,  
University of California, Santa Cruz. *Graduate Research Assistant.*

**2009-2010: Noyce Foundation, Planning Grant.**  
*Graduate Research Assistant.*

**2006 - 2008: Integrating Science and Diversity Education (ISDE).** Center for Research  
on Education, Diversity and Excellence (CREDE), Funded by the Institute of  
Educational Sciences (IES), University of California, Berkeley. *Graduate Research  
Assistant.*

**2006 - 2007: Steps to College,** The Goizueta Center for Latino Achievement and Success  
in Education (CLASE) and The Office of Institutional Diversity, The University of  
Georgia, Athens. *Teacher-Researcher and Research Assistant.*

**2005 - 2006: Center for Latino Achievement and Success in Education (CLASE),** The  
University of Georgia, *Goizueta Scholar/Graduate Research Assistant.*

**2004 - 2005: Partnership for Reform in Science and Mathematics (PRISM)-Northeast  
Region,** National Science Foundation, The University of Georgia, *Graduate  
Research Assistant, Evaluation.*

## PUBLICATIONS

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**Tolbert, S.** (2011). Science education as a pathway to teaching language literacy: A  
critical book review. *Cultural Studies of Science Education*, 6, 1, 253-261.

Musetti, B. & **Tolbert, S.** (2010). Promoting science achievement and aspiration among  
Latino English language learners in the secondary school. In Sunal, D. & Sunal, C  
(Eds.), *Teaching Science with Hispanic ELLs in K-16 Classrooms*. Charlotte, NC:  
Information Age Publishing.

Stoddart, T., Solis, J., **Tolbert, S.**, & Bravo, M. (2010). Effective science teaching for  
English language learners. In Sunal, D. & Sunal, C (Eds.), *Teaching Science with  
Hispanic ELLs in K-16 Classrooms*. Charlotte, NC: Information Age Publishing.

Stoddart, T. & **Tolbert, S.** (2008). Preparing elementary school teachers to integrate inquiry science instruction and language development for English Language Learners. Published in the 2008 NARST Conference Proceedings.

**Tolbert, S.** (2007). Making it through Mentorship: Mentorship as a Pathway for the Advancement of Critical Scholars in Higher Education. In CARE Monograph on Mentorship in Higher Education, University of South Florida.

## **PRESENTATIONS**

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### *Scholarly presentations*

Zozkakiewicz, C. & **Tolbert, S.** (2011). Preparing cooperating teachers to mentor student teachers in culturally and linguistically responsible ways. Paper presented at the Division K Symposium: Grabbing the Reins: Promising Solutions to Persisting Problems of Practice in Student Teaching Field Experiences, American Educational Research Association, New Orleans, LA.

Zozkakiewicz, C. & **Tolbert, S.** (2011). ESTELL professional development. Paper presented at the Related Paper Set: Promoting effective science teaching for English language learners: Testing a model of preservice teacher education, National Association of Research in Science Teaching, Orlando, FL.

**Tolbert, S.** (2010). Contextualizing instruction for cultural and social relevance: Exploring preservice secondary science teachers' beliefs, knowledge, and practices. Research Committee Sponsored Poster Symposium, Summer Research Institute. National Association of Research in Science Teaching annual conference, Philadelphia, PA.

**Tolbert, S.** (2009). Cultural food days and growing gardens?: Pre-service elementary teacher emerging beliefs and knowledge about contextualizing science instruction in diverse classrooms. Paper presented at the annual conference of the National Association of Research in Science Teaching, Garden Grove, CA.

Stoddart, T. & **Tolbert, S.** (2008). Preparing elementary school teachers to integrate inquiry science instruction and language development for English Language Learners. Paper presented at the annual conference of the National Science Teachers Association, NARST Research Dissemination Institute, Portland.

**Tolbert, S.,** Musetti, B., Salas, S., & Mellom, P. (2008). Science as springboard: Promoting achievement and aspiration among Hispanic students. Paper presented at the annual conference of the American Educational Research Association, New York.

Stoddart, T. & **Tolbert, S.** (2008). Preparing elementary school teachers to integrate inquiry science instruction and language development for English Language Learners. Paper presented at the annual conference of the National Association of Research in Science Teaching, Baltimore.

**Tolbert, S.** & Stoddart, T. (2008). Academic language development through inquiry science: A comparison of results from a science-language integration program in English-Only and bilingual elementary classrooms. Paper presented at the Division C: Learning and Instruction Symposium on The Relationship between Integrated Science, Language and Literacy Teaching, and Student Learning in Diverse Classrooms. American Educational Research Association, New York.

Stoddart, T., Bravo, M., Solis, J., & **Tolbert, S.** (2007). CREDE Standards in context: Subject matter, language, and culture. Center for Research on Education, Diversity, and Excellence [CREDE], Paper presented at the annual UC-Berkeley CREDE Seminar.

Musetti, B., **Tolbert, S.,** Mellom, P., Salas, S., & Strickland, D. (2007). Teaching science as an additional language in linguistically diverse classrooms. Paper presented at the Science Teaching & Learning Special Interest Group (STL-SIG) Symposium on Discourse and Diversity in Science, American Educational Research Association, Chicago.

Musetti, B., Salas, S., Mellom, P., **Tolbert, S.,** & Arcila, J. (2007). University and school partnerships for and with Latinos in education. Paper presented at the annual conference of the American Educational Research Association, Chicago.

*Other presentations and invited talks*

Stoddart, S. & **Tolbert, S.** (2010). Effective science teaching for English language learners. Nanyang University, National Institute of Education (NIE), Curriculum, Teaching, and Learning Seminar, Singapore.

**Tolbert, S.** & Suriel, R. (2009). Contextualizing science instruction: Making connections between school science and student knowledge in culturally and linguistically diverse classrooms. National Science Teachers Association Professional Development Institute, New Orleans.

Gage-Serio, O., Gutierrez, R., Miller, T., Thompson, A., **Tolbert, S.** (2007). Inquiry into the expectations and experiences of students of color in a graduate teaching credential program. Department of Education Colloquium Series, University of California, Santa Cruz.

**Tolbert, S.**, Suriel, R. (2007). Teaching Science as a Foreign Language: Vocabulary Instruction in the Science Classroom. Science for English Language Learners Conference. National Science Teachers Association, St. Louis.

**Tolbert, S.** (2005). Science for English Language Learners in Georgia Public Schools. CLASE Fall Renewal, Latin American Association, Atlanta, GA.

**Tolbert, S.** (2005). Teaching Science for Social Justice. College of Education Diversity Seminar Series, University of Georgia, Athens, GA.

**Tolbert, S.** & Bernier, E. (2005). Meeting the Needs of Georgia's Latino Immigrant Students. College of Education Middle Grades Credentialing Program, University of Georgia, Athens, GA.

#### *Other Conference Papers*

Bravo, M., & Solis, J. (2009). Stoddart, T., **Tolbert, S.**, & McKinney de Royston, M., non-presenting authors. Dialogic activity in science instruction (DAISI): Integrating CREDE pedagogy into observations of preservice science teaching. The American Educational Research Association Annual Meeting in San Diego CA, April 12-18, 2009.

## **TEACHING EXPERIENCE**

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### *College Teaching Experience*

**2011: Course Instructor**, Elementary Science Methods, University of Arizona

**2010: Lecturer**, Department of Education, University of California, Santa Cruz  
*Course: Science Teaching, Learning, and Schooling in a Diverse Society*

**2009: Teaching Assistant** (volunteer position), Department of Education, University of California, Santa Cruz  
*Course: Research and Practice in Science Education*

**2007 - 2008: Doctoral Student Intern**, Department of Education, Masters/Credentialing Program in Mathematics and Science Education, University of California, Santa Cruz

*Courses: Intro to Student Teaching, Intermediate Student Teaching*

**2007: Reader**, Latin American and Latino Studies

*Course: Power and Resistance in the Americas*

**2006: Teaching Assistant**, Latin American and Latino Studies, University of California, Santa Cruz

*Course: Intro to Latin American and Latino Studies*

*Other Teaching Experience*

**2008 - 2010: Tutor Corps**, San Francisco, CA, Tutor/Educational Manager

**2006: Steps to College**, The University of Georgia, Program Coordinator/Lead Teacher

**1996 - 2006: Public School & Adult Teaching**

*Student Teacher*, Consortium of Overseas Student Teachers (COST), Papatoetoe New Zealand, 2006

- *Conducted teaching practicum at Kedgley Intermediate, an urban multicultural school in an underserved area of South Auckland*
- *Created and taught multicultural science lessons to integrate the linguistic and cultural backgrounds of students who are Maori, Pacifika, and/or Southeast Asian.*

*Science and ESOL Teacher*, PATH Academy College Preparatory Middle School, Atlanta, GA, 2003

- *Taught English to Speakers of Other Languages, Sheltered Science, Science, Reading/Writing, Social Studies, Health, and Research Methods at charter school for refugee and immigrant children in Atlanta.*

*Adult ESL Teacher*, Rare for Conservation, Mexico and Central America, 2000-2003

- *Trained members of remote communities to work as guides for locally based eco-tourism operations*
- *Taught natural history and conservation, English for a Specific Purpose (ESP), and interpretive guiding courses*
- *Co-designed the contextualized natural science curriculum for guide training courses*

*Science and ESOL Teacher*, Teach for America, Arturo Toscanini Community Junior High School 145, Bronx, NY, 1997 - 2000

- *Created and taught 6th and 8th grade contextualized science curricula*

- *Designed and led after school programs in science enrichment and English as a Second Language (ESL)*
- *Founded and ran Young Educated Women (YEW), an extracurricular motivational program for girls*
- *Collaborated with staff to create an interdisciplinary 8th grade curriculum*
- *Established and facilitated classroom management system based on democratic learning, conflict resolution, and community participation*

*EFL Teacher, Council for International Educational Exchange, France, 1996*

- *Created and taught 5th grade English as a Foreign Language curriculum for elementary enrichment program in Rennes, France*

## **RELEVANT PROFESSIONAL EXPERIENCE**

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**2007:** LASERS/CARE Scholar, University of South Florida/San Jose State University

- *Conducted site visit and needs assessment of rural K-12 school in Cambodia to identify most urgent funding and professional development needs for school science education program; ran professional development workshop for primary and secondary science teachers in Banteay Mean Cheay Province*

**2001 – 2003:** UNESCO/Rare for Conservation, Training Coordinator/ Assistant Manager, Nature Guide Training Programs (NGTP), Ecotourism and Community Development Project, Baja California, Quintana Roo, Mexico

- *Developed and ran orientation and training programs for volunteer teachers and staff*
- *Supervised NGTP staff, volunteer teachers, and guides-in-training*
- *Managed budget and accounting for ecotourism training programs*
- *Co-wrote English for Nature Guides workbook*
- *Designed and monitored assessment programs to measure effectiveness of NGTPs in World Heritage sites*
- *Coordinated follow-up programs in participants' local communities*

**1999 – 2000:** The Nature Conservancy, Environmental Specialist and Mentor, Eastern Chapter

**1997:** Environmental Educator, Wahsega 4-H and Environmental Education Camp, Dahlonega, GA

## **HONORS, AWARDS, GRANTS**

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- 2010 Blue and Gold Departmental Scholarship, University of California, Santa Cruz
- 2010 Departmental Research Fellowship, University of California, Santa Cruz
- 2009, 2007 UCSC Graduate Student Association Travel Grant
- 2009 NARST First Annual Summer Research Institute participant
- 2009 Soroptimist International Santa Cruz Scholarship Award
- 2009 STARS Scholarship Award
- 2006-2007 University of South Florida Project LASER, CARE graduate scholarship
- 2006-2008 Cota Robles Fellowship, University of California, Santa Cruz
- 2006 Hubbard-Burton COST scholarship, The University of Georgia
- 2005-2006 Goizueta Graduate Scholarship, The University of Georgia
- 2005 NSTA Science/ELL conference, grant writer (in collaboration with Dr. Bernadette Musetti)
- 2005 Conference Scholarship, National Association for Multicultural Educators, Atlanta, GA

## SERVICE

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### *University*

- Project SEED, Amiga, 2011
- UCSC School of Education Proposal Team, Contributor
- External Evaluation, Student Panel Discussant, 2010
- PhD Visit Day, Student Panel Discussant, 2010
- Social Context and Policy Studies, Student Hiring Representative, 2008
- Doctoral Program Committee, Alternate Student Representative, 2008-2009
- Education Doctoral Student Retreat, Co-organizer, Facilitator, 2007

### *Professional*

- National Association of Research in Science Teaching, Reviewer, 2011
- American Educational Research Association, Science Teaching & Learning SIG, Reviewer, 2011
- California State University Bilingual Summits, participant and volunteer facilitator, San Diego State University, San Jose State University, 2007-2008
- NSTA Science for English Language Learners Conference, Advisory Board Member, 2006

### *Community*

- University of Georgia Living Wage Campaign, campus organizer, 2005-2006
- Athens Regional Medical Center Volunteer Coordinator and Program Developer, Auxiliary Spanish Classes, 2005
- Dia de la Mujer, volunteer organizer and interpreter, Athens, GA, 2004
- We, the People, Georgia State Conference, volunteer moderator, 2004



