

ENRIQUE SUÁREZ

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EDUCATION:

- 2012 – 2017 PhD Candidate in Science Education
CU Boulder
Advisor: Valerie Otero
- 2010 – 2012 MS in Science Education
Tufts University
Advisor: David Hammer
- 2008 – 2010 Physics Graduate-Level Work
Carnegie Mellon University
- 2006 – 2007 BS in Astrophysics
University of Oklahoma
- 2000 – 2006 BS in Physics
Universidad Simón Bolívar. Caracas, Venezuela
Transferred to University of Oklahoma before completion

DISSERTATION:

- Title Designing Linguistically Equitable Science Learning Environments for Elementary-Aged Emerging Bilingual Students
- Committee Chair: Valerie Otero
Members: William Penuel, Kris Gutiérrez, Eve Manz, Noah Finkelstein

PROFESSIONAL APPOINTMENTS:

- 2017 – present Research Associate, Institute for Science + Math Education
College of Education, University of Washington

HONORS AND AWARDS:

- 2016 – 2017 Jhumki Basu Scholar, NARST Equity & Ethics Committee.
- July 2015 Sandra K. Abell Institute for Doctoral Students, NARST.
- 2014 – 2015 CU Boulder Chancellor's Award for Excellence in STEM Education.
- 2012 – 2013 School of Education PhD Scholarship, CU Boulder.
- June 2011 Tisch Active Citizenship Fellow, Tufts University.
- 2008 – 2009 Achievement Rewards for College Scientists (ARCS) Scholar.

LANGUAGES SPOKEN:

Bilingual: Spanish – English.

RESEARCH POSITIONS:

- 2013 – 2017 Research Assistant
Noyce Teacher Research Teams

	CU Boulder
2013 – 2014	Research Assistant Physics and Everyday Thinking (PET) – High School Curriculum CU Boulder
2012 – 2013	Research Assistant History of Physics Education in the US CU Boulder
2010 – 2012	Research Assistant Robert Noyce Teacher Scholarship Program Tufts University
2010 – 2012	Research Assistant Poincaré Institute for Math Education Tufts University
July 2011	Research Scholar Energy Project Summer Research Institute (EPSRI) Seattle Pacific University
2008 –2010	Research Assistant Baryon Acoustic Oscillations: Intensity Mapping of Lyman α Emitters Carnegie Mellon University
Spring 2008 Summer 2005	Research Assistant HI in ACO Galaxy Clusters Jodrell Bank Observatory. Manchester, England
2007	Research Assistant Senior Research Thesis Baryon Acoustic Oscillations: Observational Criteria for Detecting Galactic Balmer α Emission University of Oklahoma

TEACHING EXPERIENCE:

Teacher Education Methods Courses

January – May 2017: Instructor, EDUC/PHYS 1580: Energy and Interactions, CU Boulder.

Energy and Interactions is an inquiry-based science course with three main objectives: students learn physics content, students engage in the process of constructing science knowledge, and students learn best practices for science pedagogy. The course meets an education (gen ed) requirement, or a physical science requirement. About half of the students enrolled are pre-service elementary or secondary teachers from the School of Education.

August – December 2016: Instructor, EDUC/PHYS 1580: Energy and Interactions, CU Boulder.

July – August 2016: Instructor, Program for Excellence in Academics and Community (PEAC): Energy and Interactions, CU Boulder.

PEAC a rigorous academic program for incoming freshmen from traditionally underrepresented groups and/or who are first-generation college students. The program focuses on intensive university-level material and giving students an opportunity to form a strong community that will serve them during their freshman year and beyond. In *Energy and Interactions*, students learned physics content and about the process of science by engaging in investigations and proposing and evaluating evidence-based principles about the physical world.

January – May 2016: Instructor, EDUC/PHYS 1580: Energy and Interactions, CU Boulder.

September 2015 – December 2015: Instructor, EDUC 5215: Elementary Science Methods and Theory, CU Boulder.

In this course, pre-service elementary teachers extended their understanding of science as a process of sense-making; learned to pay attention to how students think about scientific ideas; developed strategies for eliciting

students' ideas and questions, engaging them in investigations, and supporting them in developing explanations; and developed strategies for making science accessible and relevant for all students.

September 2014 – December 2014: Teacher Assistant, EDUC 5215: Elementary Science Methods and Theory, CU Boulder.

January – May 2013: Instructor, EDUC 2020: Inquiry Approaches to Teaching, CU Boulder.

Step 1 is an introduction to teaching and learning science, for both pre-service teachers and non-education majors. Students develop best practices for teaching science, particularly through modifying FOSS lessons and reflect on their experiences. Students are placed in local elementary school classrooms, where they observe experience in-service teachers conduct science lessons, as well as teach the FOSS lessons they modified.

September 2010 – May 2012: Teacher Assistant, Poincaré Institute for Math Education for Middle School Teachers, Tufts University.

K-12 Teaching Experience

Spring, Summer, Fall 2016: ElectroBuzz Science Program; lead designer and instructor for out-of-school program for K-5 emerging bilinguals students in partnership with public library.

September 2014 – May 2015: Volunteered Science Support for Bilingual Students in Grade 4, Boulder Valley School District.

September 2011 – June 2012: Volunteered Science Support for Teachers in Grades 1-3, Somerville Public Schools.

June – August 2011: Tisch College Active Citizenship Summer (ACS); science instructor in Summer Program from English Language Learners (SPELL), Somerville Public Schools.

Summer 2009, Summer 2010: Teaching Assistant for Physics, Summer Academy for Math and Sciences (SAMS) for under-served high school students, Carnegie Mellon University.

August 2008 – March 2009: Mentor for the Department of Physics Outreach Program for Middle School Science Fair, Carnegie Mellon University.

Teaching Assistantships for Undergraduate Courses

August 2008 – May 2010: Teaching Assistant, Physics and Astronomy courses, Carnegie Mellon University.

January – December 2005: Teaching Assistant, Physics courses, Universidad Simon Bolivar, Caracas, Venezuela.

PUBLICATIONS

Suárez, E. (in preparation). *Unpacking Disagreements Between Elementary-Aged Students About Mechanistic Models of Electric Flow*. Science Education.

Suárez, E. (in preparation). *Estoy Explorando Science: Translanguaging in an Out-Of-School Science Program for Emerging Bilingual Students*. To be submitted to: Science Education.

Suárez, E., & Otero, V. (in preparation). *Third Grade Emerging Bilingual Students Making Sense of Sound Production*. To be submitted to: Journal of Research in Science Teaching.

PEER-REVIEWED JOURNAL ARTICLES:

Manz, E., & Suárez, E. (in press). *Supporting teachers to negotiate uncertainty for science, students, and teaching*. Science Education.

REFEREED CONFERENCE PROCEEDINGS:

- Krist, C., & Suárez, E. (2018). *Doing Science with Fidelity to Persons: Instantiations of Caring Participation in Science Practices*. 2018 International Conference of the Learning Sciences.
- Suárez, E., & Otero, V. (2014). *Leveraging the Cultural Practices of Science for Making Classroom Discourse Accessible to Emerging Bilingual Students*. 2014 International Conference of the Learning Sciences.
- Suárez, E., & Otero, V. (2014). *Physics as a Mechanism for Including ELLs in Classroom Discourse*, 2013 Physics Education Research Conference Proceedings. Mellville, NY: AIP Press.
- Suárez, E., & Otero, V. (2013). *3rd Grade English Language Learners Making Sense of Sound*, 2012 Physics Education Research Conference Proceedings. Mellville, NY: AIP Press.
- Peterson, J. B., & Suárez, E. (2012). Intensity Mapping with 21-cm and Lyman Alpha Lines. Proceedings of 47th Recontres des Moriond: Cosmology Session. arXiv: 1206.0143

REFEREED CONFERENCE PRESENTATIONS:

- Welch, MaryMargaret, Suárez E., Lakhani, Heena, & Taylor, Alisha. (2018, April). *Leading NGG Implementation in Districts*. Presented at the Annual Meeting of the National Science Teachers Association, Atlanta, GA.
- Welch, MaryMargaret, Lakhani, Heena, Suárez E., & Taylor, Alisha. (2018, April). *Equity-Centered NGSS Storylining: A Practical Guide to the Planning of Phenomena-Centered Science Learning*. Presented at the Annual Meeting of the National Science Teachers Association, Atlanta, GA.
- Welch, MaryMargaret, Lakhani, Heena, Suárez E., & Taylor, Alisha. (2018, April). *Equity-Based NGSS Implementation Through Research Practice Partnerships*. Presented at the Annual Meeting of the National Science Teachers Association, Atlanta, GA.
- Suárez E. (2018, March). *Responding to Emerging Bilingual Students' Translanguaging When Reasoning and Communicating About Natural Phenomena*. Presented at the Annual Meeting of the National Association of Research in Science Teaching, Atlanta, GA.
- Suárez E. (2016, April). *Negotiating Students' Epistemic Agency in Physics Consensus Discussions*. Presented at the Annual Meeting of the National Association of Research in Science Teaching, Baltimore, MD.
- Manz E., & Suárez E. (2016, April). *Leveraging Uncertainty to Support Students' Engagement in Practice*. Presented at the Annual Meeting of the National Association of Research in Science Teaching, Baltimore, MD.
- Sommer S., Suárez E., Langdon L., & Grover, R. (2016, April). *Models for Promoting Inquiry and Collaborative Learning for Veteran, Novice, and Preservice Teachers*. Presented at the American Education Research Association, Washington D.C.
- Suárez E., & Otero, V. (2015, July). *Am I Stealing Your Glory? Negotiating Students' Epistemic Agency During Consensus Discussions*. Presented at the Summer Meeting of the American Association of Physics Teachers, College Park, MD.
- Renga, I., Suárez, E., Langdon, L., Grover, R., Sommer, S., Marsh, C., (2015, April). *Investigating the Epistemic Activity and Agency of Pre-Service Teachers Within a Model of Collaborative Inquiry*. Presented at the Annual Meeting of the American Education Research Association, Chicago, IL.
- Suárez E., & Otero, V. (2015, April). *Science: A Mechanism for Inviting Emerging Bilingual Students into Classroom Discourse*. Presented at the Annual Meeting of the National Association of Research in Science Teaching, Chicago, IL.
- Suárez E., Guegan, P., & Otero, V. (2014, July). *Analyzing High School Physics Consensus Discussions: Coding Schemes Are NOT Observations*. Presented at the Summer Meeting of the American Association of Physics Teachers, Minneapolis, MN.

Suárez E., & Otero, V. (2014, June). *Leveraging The Cultural Practices of Science for Making Classroom Discourse Accessible to Emerging Bilingual Students*. Presented at the 11th International Conference of the Learning Sciences, Boulder, CO.

Suárez E., & Otero, V. (2014, April). *Doing and Talking Science: Strategies for Engaging ELLs in Classroom Discourse*. Presented at the Annual Meeting of the National Science Teachers Association, Boston, MA.

Suárez E., & Otero, V. (2013, July). *Hands-on Physics as a Mechanism for Including ELLs Into Classroom Discourse*. Presented at the Summer Meeting of the American Association of Physics Teachers, Portland, OR.

INVITED PRESENTATIONS:

Suárez, E. (2018, April). *Valuing and Leveraging Students' Semiotic Repertoires*. Invited Presentation at California State University, Chico, CA; Host: Dr. Carolina Alvarado.

Suárez, E. (2018, February). *Using video for tracking communication, interaction, and sense-making*. Invited Presentation at University of Illinois, Urbana-Champaign; Host: Dr. Christina (Stina) Krist.

Suárez, E. (2016, April). *Design Principles for Supporting Emerging Bilingual Students Construct Mechanistic Models*. Invited Presentation at University of Maryland, College Park; Host: Dr. Andrew Elby and Dr. Ayush Gupta.

Suárez, E. (2015, May). *Science: A Mechanism for Inviting Emerging Bilingual Students Into Classroom Discourse*. Invited Presentation at Columbia University: Teachers College, New York; Host: Dr. Christopher Emdin.

Suárez, E. (2014, August). – *How Can I Play If Don't Know the Rules Of The Game?* Invited Workshop for faculty at Northwestern Oklahoma State University, Ada; Host: Dr. Steve Maier.

Suárez, E. (2014, August). – *Whose Science? Inclusive Learning Environments*. Invited Workshop for science faculty at Northwestern Oklahoma State University, Ada; Host: Dr. Steve Maier.

SELECTED POSTER PRESENTATIONS:

Manz, E., & Suárez, E. (2017, May). *How Teachers Negotiate Uncertainty for Science, Students, and Teaching*. Presented at the Annual Meeting of the American Education Research Association, San Antonio, TX.

Suárez E. (2017, April). *Designing Equitable Science Learning Environments for Elementary-aged Emerging Bilingual Students*. Presented at the Annual National Association of Research in Science Teaching, San Antonio, TX.

Suárez E. (2016, April). *Design Principles for Supporting Emerging Bilingual Students Construct Mechanistic Models*. Presented at the Annual National Association of Research in Science Teaching, Baltimore, MD.

Manz, E., & Suárez, E. (2016, April). *Supporting Elementary Teachers to Adapt Curriculum Materials for Increased Uncertainty*. Presented at the Annual Meeting of the American Education Research Association, Washington, D.C.

Suárez E., & Otero, V. (2015, July). *Negotiating Epistemic Agency and Epistemic Authority in Consensus Discussions*. Presented at the Physics Education Research Conference, College Park, MD.

Suárez E., & Otero, V. (2015, April). *Emerging Bilingual Students Engaging in Science Practice Through Blending Everyday and Academic Language*. Presented at the National Association of Research in Science Teaching, Chicago, IL.

Suárez E., Ross, M.J., Guegan, P., Belleau, M., Hubert, K., & Otero, V. (2014, July). *A Methodology for Characterizing Student Engagement in Consensus Discussions*. Presented at the Physics Education Research Conference, Minneapolis, MN.

Suárez E., & Otero, V. (2013, July). *Physics as a Mechanism for Including ELLs Into Classroom Discourse*. Presented at the Physics Education Research Conference, Portland, OR.

Suárez E., & Otero, V. (2012, July). "Because It Hibernates Faster": 3rd Grade English Language Learners Making Sense of Sound. Presented at the Physics Education Research Conference, Philadelphia, PA.

PROFESSIONAL DEVELOPMENT FOR K-12 TEACHERS:

August 2017 – August 2018:

August 2015 – *Supporting Emerging Bilingual Students in Science Discourse*. Boulder Valley School District. Collaborators: Samantha Messier (district admin) and Judy Stone (K-5 teacher).

September 2014 – June 2015 – *Supporting 2nd Grade Teachers to Adapt Curriculum Materials for Increased Uncertainty*. Boulder Valley School District. Collaborators: Eve Manz (lead instructor and researcher) and Samantha Messier (district admin).

June 2012 – *Supporting Emerging Bilingual Students in Science Discourse*. Somerville Public Schools. Collaborators: Hannah deSouza (K-5 teacher).

September 2010 – May 2012 – *Poincaré Institute for Math Education: Supporting Middle Grades Teachers Develop Mathematics Subject Matter Knowledge for Teaching*. Medford Public Schools, Leominster Public Schools, Skyview Public Schools, Somerville Public Schools, Medway Public Schools, Portland Public Schools, Dover Public Schools, Sanborn Public Schools, Timberlane Public Schools.

GRANTS:

2016	Principal Investigator: Enrique Suárez <i>ElectroBuzz Out-Of-School Science Program for Elementary-Aged Emerging Bilingual Students</i> Purchased Electroninks® materials for building circuits: pens with conductive ink and other electronic components. This grant made possible for ElectroBuzz be free of cost for participating students. SparkFun Educator Mini Grant	US\$250
2016	CU Boulder School of Education Conference Travel Award	US\$500
2014 – 2015	CU Boulder Chancellor's Award for Excellence in STEM Education.	US\$500
2014	United Government of Graduate Students at CU Boulder Travel Award.	US\$300
2013	CU Boulder School of Education Conference Travel Award.	US\$500
2012	CU Boulder School of Education Conference Travel Award.	US\$500
2010	Principal Investigator: Enrique Suárez; Co-PI: Dr. Jeffrey Peterson <i>Study of Velocity Distortions Using 21cm Intensity Mapping</i> . (GBT/10B-036). National Radio Astronomy Observatory - Student Observing Support Award. 300 observation hrs at Greenbank Telescope and US\$35,000	

PROFESSIONAL SERVICE:

2018 – present: Reviewer, *Bilingual Journal of Research*.

2017 – present: Reviewer, *Science Education*.

2017 – present: Reviewer, *International Conference of the Learning Sciences*.

2017 – present: Reviewer, *Journal of Research in Science Teaching*.

2017 – present: Reviewer, *Cultural Studies in Science Education*.

2016 – present: Reviewer, National Association for Research in Science Teaching.

2016 – present: Reviewer, PLOS One.

2016 – present: Reviewer, Revista Infancia y Aprendizaje.

2015 – present: Reviewer, American Educational Research Association.

2015 – present: Reviewer, Physical Review Physics Education Research (PR-PER).

2012 – present: Reviewer, Physics Education Research Conference.

2015 – 2016: PhD Student Committee Representative for Dean of School of Education search; University of Colorado Boulder School of Education

2015 – 2016: PhD Student Committee Representative for Elementary Science Education Faculty search; University of Colorado Boulder School of Education

2013 – 2015: Secretary for the Physics Education Research Consortium of Graduate Students.

2013 – 2014: Co-chair of the Student Association of Graduate Educators, School of Education, University of Colorado, Boulder.

2016 – 2018: President of the Board of Directors of *Integral Steps*