

CARRIE D. ALLEN

Curriculum Vitae

School of Education
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University of Colorado Boulder
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EDUCATION

- 2011-present **University of Colorado**, School of Education, Boulder, Colorado
PhD Candidate in Educational Psychology and Learning Sciences
- Committee Members: Ben Kirshner, William R. Penuel, Margaret Eisenhart,
Heidi B. Carlone, and Tamara Sumner
- Anticipated Graduation: May 2016
- 2005-2006 **Seattle University**, Seattle University, Seattle, Washington
Master in Teaching, Secondary English Education
- 2001-2005 **Western Washington University**, Bellingham, Washington
B.A. in English: Literature

RESEARCH INTERESTS

My research focuses on preparing and supporting teachers to enact equitable instructional practices in science education in ways that promote student participation, learning, and sense of belonging. I additionally examine the organizational conditions required for teachers to integrate such practices into their instruction.

PUBLICATIONS

- Kornbluh, M., Ozer, E., Kirshner, B., & Allen, C. (under review). Youth Participatory Action Research and the New Academic Standards: Considerations for Educators. Submitted to *Urban Education*.
- Weis, L., Eisenhart, M., Cipollone, K., Stich, A., Nikischer, A., Hanson, J., Ohle, S., & Allen, C. (under review). Eroding Opportunities for STEM: Opportunity Structures and Outcomes in Inclusive STEM Schools for Low-Income Underrepresented Minorities. Submitted to *American Educational Research Journal*.
- Eisenhart, M., Weis, L., Allen, C., Cipollone, K., Stich, A., & R. Dominguez. (2015). High School Opportunities for STEM: Comparing Inclusive STEM-focused and Comprehensive High Schools in Two U.S. Cities. *Journal of Research in Science Teaching*. doi: 10.1002/tea.21213
- Allen, C., & Penuel, W.R. (2014). Studying Teachers' Sensemaking to Investigate Teachers' Responses to Professional Development Focused on New Standards. *Journal of Teacher Education*. doi: 10.1177/0022487114560646

Eva, A., Bemis, C.A., Quist, M., & Hollands, B. (2013). The Power of the Poetic Lens: Why Teachers Need to Read Poems Together. *The Journal of the Assembly for Expanded Perspectives on Learning*, 19(1), 62-73.

MANUSCRIPTS IN PROGRESS

Allen, C. & Eisenhart, M. (in progress). Authoring New Histories: Learning from Girls' Negotiations of Science Identities within and across High School. Manuscript for *Journal of the Learning Sciences*.

Allen, C. (in progress). Utilizing Organizational Sensemaking to Understand Teachers' Implementation of Science Education Reform. Manuscript for *Journal of Research in Science Teaching*.

Eisenhart, M. & Allen, C. (in progress). The Meaning of Math in the Construction of High School Identities and Future Success. Manuscript for *Mind, Culture, and Activity: An International Journal*.

Allen, C. & Kirshner, B. (in progress). Find a Way or Make One: How Teachers do Critical Pedagogy in No Excuses Schools. Manuscript for *Urban Education*.

Allen, C. (in progress). Passion and Ingenuity in Tight Spaces: Highlighting Teacher Agency in the Context of Science Education Reform. Manuscript for *Journal of Science Teacher Education*.

REFEREED CONFERENCE PRESENTATIONS

Eisenhart, M. & Allen, C. (2015, April). *The meaning of math in the construction of high school identities and future success: Two Denver cases*. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL.

Allen, C., Severance, S., & Penuel, W.R. (2015, April). *Leveraging professional development to design and enact NGSS-aligned materials in uncertain policy contexts*. Paper presented at the NARST Annual Meeting, in Chicago, IL.

Sherwood, C.A., Allen Bemis, C., Moorthy, S., D'Angelo, C., Stanford, T., Harris, C. (2014, June). *Between the Lines: The role of curriculum materials and teacher language in communicating ideas about scientific modeling*. Paper for poster session at the International Conference of the Learning Sciences, in Boulder, CO.

Allen Bemis, C. (2014, April). *Using Participatory Action Research to bring student and teacher voices to the science-education reform discussion*. Paper presented at the American Educational Research Association Annual Meeting, in Philadelphia, PA.

Allen Bemis, C., Wiley, K., & Eisenhart, M. (2014, April). *What is a STEM school? Opportunities in inclusive and traditional high schools in Denver*. Paper presented at the American Educational Research Association Annual Meeting, in Philadelphia, PA.

Eisenhart, M. & Allen Bemis, C. (2014, April). *Figured worlds of schooling and STEM in Denver and Buffalo*. Paper presented at the American Educational Research Association Annual Meeting, in Philadelphia, PA.

Moorthy, S., Harris, C., Sherwood, C., D'Angelo, C., Allen Bemis, C., Stanford, T. (2014, April). *The use of talk moves to support student participation in scientific modeling*. Paper presented at the American Educational Research Association Annual Meeting, in Philadelphia, PA.

Allen Bemis, C., D'Angelo, C., Penuel, W., & Severance, S. (2014, March). *Evaluating teacher professional development for implementation: teacher sensemaking and impacts on practice*. Paper presented at the NARST Annual Conference, in Pittsburgh, PA.

D'Angelo, C., Moorthy, S. Allen Bemis, C., & Sherwood, C. (2014, March). *Using log data to analyze teacher implementation of Framework-aligned curriculum*. Paper presented at the NARST Annual Conference, in Pittsburgh, PA.

Sherwood, C. Moorthy, S., Allen Bemis, C., Harris, C. (2014, March). *Between the lines: the role of teacher language in communicating ideas about scientific modeling*. Paper presented at the NARST Annual Conference, in Pittsburgh, PA.

Moorthy, S., Harris, C., D'Angelo, Sherwood, C., C., Allen Bemis, C., Stanford, T. (2014, March). *The role of productive talk in supporting student participation in scientific modeling*. Paper presented at the NARST Annual Conference, in Pittsburgh, PA.

Allen Bemis, C., Ohle, S., Wiley, K., & Eisenhart, M. (2013, April). *Math and science opportunity structures in Denver-area high schools*. Paper presented at the American Educational Research Association Annual Meeting, San Francisco, CA.

Prudhomme, J., Allen Bemis, C. & Eisenhart, M. (2013, April). *Social and cultural capital and capital high school: a different story*. Paper presented at the American Educational Research Association Annual Meeting, San Francisco, CA.

Zion, S., & Allen Bemis, C. (2013, April). *Critical pedagogy: Preparing teachers to create spaces that support and sustain student transformative voice*. Paper for structured poster session at American Educational Research Association Annual Meeting, San Francisco, CA.

Allen Bemis, C., & Kirshner, B. (2013, April). *Find a way or make one: How teachers do critical pedagogy in No Excuses schools*. Paper for roundtable session at the American Educational Research Association Annual Meeting, San Francisco, CA.

Allen Bemis, C., Penuel, W. R. & Jones, H. (2013, April). *Middle school teachers' ideas about the practices of developing and using models in science*. Paper presented at the NARST Annual Conference, San Juan, Puerto Rico.

Sherwood, C. A., Moorthy, S., Allen Bemis, C. (2013, April). *Characterizing the relationship between high-quality task setup and teachers' instructional practices during lessons incorporating scientific practices*. Paper presented at the NARST Annual Conference, San Juan, Puerto Rico.

Allen Bemis, C. (2013, February). *'Working hard' and 'just getting it': Authoring selves in the figured world of STEM at Southside High School*. Paper presented at the Ethnography in Education Forum, University of Pennsylvania, Philadelphia, PA.

Allen Bemis, C. & Kirshner, B. (2012, November). *'Find a way or make one': A case study of Youth Participatory Action Research within No Excuses Schools*. Paper presented at the American Anthropological Association Annual Meeting, San Francisco.

Kirshner, B., Mendoza, E. & Allen Bemis, C. (2012, November). *Mapping disruptions of common sense: Place-making with students at Southern High School*. Paper presented at the American Anthropological Association Annual Meeting, San Francisco, CA.

Kirshner, B., Mendoza, E., Allen Bemis, C. (2012, April). *Place-making with students: Leveraging local knowledge to transform learning in schools*. Paper presented at the American Educational Research Association Annual Meeting, Presidential Session, Vancouver, B.C.

Schlick-Noe, Eva-Wood, Allen Bemis, C. (2006). *Renewing our spirits: The role of poetry in sustaining teachers' lives*. Presentation at the National Conference of Teachers of English Annual Conference, Nashville, TN.

RESEARCH POSITIONS

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| 2014-present | <p>Graduate Research Assistant, Tracing Changes in the Enactment of Science Practices, University of Colorado-Boulder</p> <p>PI: Eve Manz</p> <ul style="list-style-type: none">• Project with PI, examining and developing coding scheme to understand changes in one teachers' facilitation of students' engagement with science practices in an elementary classroom within a three-year, longitudinal study |
| 2012-present | <p>Graduate Research Assistant, "Efficacy Study of Project-Based Inquiry Science," funded by National Science Foundation (NSF) (DRL-1020407), University of Colorado-Boulder</p> <p>PI: Christopher Harris; Co-PIs: William Penuel and Joseph Krajcik</p> <ul style="list-style-type: none">• Co-developed coding guide to analyze teacher implementation of practices aligned with the 2012 National Research Council's (NRC) <i>Framework for K-12 Science Education</i> and the <i>Next Generation Science Standards (NGSS)</i> for a cluster randomized controlled trial measuring impact of project-based middle school science curriculum• Evaluated teacher professional development (PD) related to <i>NGSS</i> and the <i>Framework</i>• Analyzed teacher sensemaking of the <i>NGSS</i> and <i>Framework</i> during PD and classroom implementation |
| 2012-2015 | <p>Graduate Research Assistant, "Urban High School Opportunity Structures, Figured Worlds of STEM, and Choice of Major and College Destination," funded by NSF (DRL-1007964), University of Colorado-Boulder</p> <p>PI: Margaret Eisenhart</p> <ul style="list-style-type: none">• Study analyzing opportunity structures for minority high school students to explore and pursue fields of STEM |

- Followed the trajectories of 12 high school females over a two-year period through student and parent interviews, school site shadowing, and classroom observations
- Co-developed interview protocols and project coding scheme

2013-2014

Research Consultant, Empower Shakti International (ESI), Boulder, CO

- Co-designed and conducted community-based research project to measure the impact of mindfulness practices on social change and women's perceptions of agency

Fall 2013

Graduate Research Assistant, Center for Civic Engagement and Service Learning, University of Colorado-Boulder

Faculty Director: Ben Kirshner

- Developed empirical review and conceptual framework to inform design of campus center for community-based research and student civic engagement
- Interviewed leaders in higher education outreach and engagement

2011-2012

Graduate Research Assistant, "Critical Civic Inquiry: A Design-Based Study," funded by Spencer Foundation, University of Colorado-Boulder

PIs: Ben Kirshner, Shelley Zion, and Carlos Hipolito-Delgado

- Project aimed at helping teachers orchestrate critical conversations about race, class, and inequity in schools, and supporting teachers' integration of Youth Participatory Action Research projects into content-area curriculum
- Partnered with teachers and students on YPAR projects, collected weekly video data, teacher and student interviews

2010-2011

Research Assistant, First-year Teacher Preparedness Study, Seattle University

PIs: Amy Eva and Bridget Walker

- Piloted research study/program evaluation related to first-year teacher preparedness
- Observed and interviewed first-year teachers regarding effective use of instructional and classroom management strategies

TEACHING AND FACILITATION

Fall 2015

Graduate Teaching Assistant, *Educational Psychology and Adolescent Development*, School of Education, University of Colorado-Boulder

Summer 2013

Professional Development Facilitator, *Next Generation Science Standards Professional Development Workshop*, funded by NSF grant (DRL-1020407)

- Co-designed professional development workshop on NGSS for 6th grade science teachers in a large urban district.

- Led workshop session focused on literacy practices in NGSS and on establishing coherence for teachers between Common Core ELA standards and NGSS

- 2010-2011 **Instructor**, Edmonds Community College, Developmental Education Division, Lynnwood, Washington
- Teaching college-readiness courses focused on essay writing and grammar, reading comprehension, speed-reading, time management and study skills
- 2010-2011 **SAT-Preparation Workshop Coordinator**, Edmonds Community College, Developmental Education Division, Lynnwood, Washington, funded by ECC Foundation Grant
- Taught free SAT-preparation workshop for local youth and international high school students at the college
 - Collaborated with Latino Outreach Specialist and Indian Education Specialist for local school district to design curriculum and involve families regarding college-readiness education
- 2009-2011 **Advisor**, Edmonds Community College, Developmental Education Division, Lynnwood, Washington
- 2006-2009 **English Teacher**, Shorewood High School, Shoreline School District, Shoreline, Washington

HONORS AND FELLOWSHIPS

- 2014-present **Fellow**, National Science Foundation (NSF), Competitive fellowship awarded by the Community for Advancing Discovery Research in Education (CADRE) in the Division of Research on Learning in Formal and Informal Settings (DRL)

SERVICE

- June 2014 **Keynote Assistant**, International Conference of the Learning Sciences annual meeting, Boulder, CO
- 2012-2013 **Board Member**, Racial Initiatives for Students and Educators (RISE), University of Colorado, Boulder
- 2012-2013 **Board Member**, Graduate Student Editorial Board, American Educational Research Journal (AERJ)

PROFESSIONAL AFFILIATIONS

- 2014-Present International Society of the Learning Sciences
- 2012-Present NARST
- 2010-Present American Educational Research Association
- 2010-Present American Anthropological Association