
Heidi Carlone

Assistant Professor, Science Education

School of Education
Assistant Professor - Curriculum and Instruction
Date of Hire: 2000
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Professional Interests

Research: Science Education

Teaching: Science Education, Cultural Perspectives, Qualitative Research Design

Academic Background

Ph.D.	2000	University of Colorado	Boulder, Colorado	Instruction and Curriculum in Science Education
B.S.	1991	North Carolina State University	Raleigh, North Carolina	Science Education

WORK EXPERIENCE

Courses Taught

Cont Pr: Law of Higher Ed (specialized masters)
ExCr: Cultural Persp Tch Lrng (doctoral)
Graduate Independent Study (specialized masters)
INT II: Inquiry in Teach & Lrn (undergraduate)
INT III: Inquiry in Tch&Learn (undergraduate)
Integrated Research Methods (specialized masters)
Internshp I: Inqry Teach & Lrn (undergraduate)
Qual Research Design in CUI (doctoral)
Science Edu in the Elem School (undergraduate)
Student Tch & Sem: Elem Grades (undergraduate)
Student Tch&Sem: Math (undergraduate)
Student Tch&Sem: Science (undergraduate)

INTELLECTUAL CONTRIBUTIONS:

Refereed Articles

Buxton, C., Carlone, H. B., & Carlone, D. (in press). Boundary spanners as bridges of student and school discourses in an urban science and math high school. *School Science and Mathematics*.

Carlone, H., & Webb, S. (in press). On (not) overcoming our history of hierarchy: Complexities of university/school collaboration. *Science Education*.

Carlone, H. (2004). The cultural production of science in reform-based physics: Girls access, participation, and resistance. *Journal of Research in Science Teaching*, 41(4), 392-414.

Strahan, D., Carlone H., Horn, S., Dallas, F., & Ware, A. (2003). Beating the odds at Archer Elementary School: Developing a shared stance toward learning. *Journal of Curriculum and Supervision*, 18, 204-221.

- Carlone, H. (2003). (Re)Producing good science students: Girls participation in high school physics. *Journal of Women and Minorities in Science and Engineering*, 9, 17-34.
- Carlone, H. (2003). Innovative science within and against a culture of achievement. *Science Education*, 87, 307-328.

Book Chapters

Refereed

- Strahan, D., Carlone, H., Horn, S., Dallas, F., & Ware, A. (2006). Developing a shared stance toward learning at Central Elementary School. In G. Ponder & D. Strahan (Eds.), *Deep change: Cases and commentary on schools and programs of successful reform in high stakes states*. Greenwich, CT: Information Age Publishing.

Presentation of Refereed Papers

International

- Carlone, H., & Bowen, M. (2003, July). *The fallacy of authentic science classrooms: Missing aspects of practicing science communities*. Presented at 7th International History, Philosophy & Science Teaching Conference, Winnipeg, Canada.

National

- Carlone, H. (2005, October). *Science identity as an analytic lens for science education: Possibilities and complexities*. Presented at Science at the Crossroads Conference, Storrs, CT.
- Tomasek, T., & Carlone, H. (2005, April). *Improving elementary science teaching through Japanese lesson study*. Presented at National Association for Research in Science Teaching Annual Meeting, Dallas, TX.
- Carlone, H. (2005, April). *Science identity as an analytic lens for science education*. Presented at National Association for Research in Science Teaching Annual Meeting, in Dallas, TX.
- Buxton, C. A., Carlone, H. B., & Carlone, D. (2005, April). *Boundary spanners as bridges of student and school discourses in an urban science and math high school*. Presented at American Educational Research Association Annual Conference, Montreal, Canada.
- Webb, S., & Carlone, H. B. (2004, April). *Promoting science inquiry in a fifth grade teacher study group using a lesson study framework*. Presented at American Educational Research Association Annual Conference, San Diego, CA.
- Buxton, C. A., & Carlone, H. B. (2004, April). *The role of boundary objects in creating discourses of science in an urban science and math high school*. Presented at National Association for Research in Science Teaching Annual Meeting, Vancouver, British Columbia, Canada.
- Webb, S., & Carlone, H. B. (2003, April). *Problematizing authentic literacy practices: University and school based educators negotiate meanings of literacy within a collaborative project*. Presented at American Educational Research Association Annual Conference, Chicago, IL.
- Carlone, H., & Webb, S. (2003, April). *Negotiating meaning amidst the shifting locus of power in a collaborative planning group*. Presented at American Educational Research Association Annual Conference, Chicago, IL.
- Webb, S., Carlone, H. B., & Duffy, A. (2002, November). *This is how we do literacy here: A collaborative planning team negotiates meanings of literacy within a framework of science inquiry*. Presented at National Reading Conference, Miami, FL.
- Carlone, H. (2002, April). *Embracing the prescriptive and resisting the authentic: An examination of tool-based practices in high school physics*. Presented at National Association for Research in Science Teaching Annual Meeting, New Orleans, LA.

- Carlone, H. (2002, April). *Problematizing best practice discourse in science education via an analysis of girls' participation in reform-based science*. Presented at American Educational Research Association Annual Conference, New Orleans, LA.
- Carlone, H. (2001, April). *Invoking micro and macro contexts to understand girls' participation and learning in high school physics*. Presented at American Educational Research Association Annual Conference, Seattle, WA.
- Carlone, H. (2001, March). *Girls' participation, interest, and resistance in reform-based and traditional high school physics*. Presented at North Carolina Association for Research in Education Annual Meeting, Charlotte, NC.
- Carlone, H. (2001, March). *Innovative science within and against a culture of achievement*. Presented at National Association for Research in Science Teaching Annual Meeting, St. Louis, MO.
- Carlone, H. (2000, April). *The cultural production of scientist identities in high school physics: Girls access, participation, and resistance*. Presented at National Association for Research in Science Teaching Annual Meeting, New Orleans, LA.

Local

- Carlone, H. (2002, November). *Teaching science for all: What is multicultural science education, anyway?* Presented at North Carolina Science Teachers Association Annual Meeting, Greensboro, NC.
- Carlone, H. (2001, October). *Integrating standards-based elementary science with literacy: Inspiring ideas from UNCG*. Presented at North Carolina Science Teachers Association Annual Meeting, Greensboro, NC.

SERVICE:

Service to the University

Departmental assignments:

Member:

- 2006-2007: Elementary Education Committee: (Department), Member.
- 2005-2006: Doctoral Task Force Member: (led by Ceola Ross Barber and Gerry Duffy; Fall 2005-Spring 2006).
- 2003-2004: School of Education representative at the Fall Focus recruiting event: (October 18, 2003).
- 2003-2004: School of Education representative at Open House recruiting event: for prospective students and their parents (April 11, 2003; 2, 45-minute sessions).
- 2003-2004: Doctoral Task Force: Volunteer member beginning 10/21/03
- 2003-2004: Elementary Education Committee

Other Institutional Service Activities:

- 2005-2006: Faculty Phone-A-Thon: February 7, 2006; phoned over 20 recruits for UNCG's School of Education.

University assignments:

Member:

- 2006-2007: School of Education Scholarship Committee: (Fall 2004-present)
- 2006-2007: School of Education Scholarship Committee: (Fall 2004-present).
- 2005-2006: Member of School of Education Search Committee for the Associate Dean/Director of Research: Search postponed until Fall 2005
- 2005-2006: Member of School of Education Search Committee: for the Associate Dean/Director of research (interviewed 2 candidates in Fall 2005; search continued in Spring 2006; search unsuccessful this year).
- 2004-2005: Elementary Education Committee
- 2004-2005: Member of CED Search Committee (Fall 2004-Spring 2005): search for 3 positions; 6 candidates visited UNCG.
- 2004-2005: O. Max Gardner Award Committee: Member (term ended May, 2004)

2004-2005: Institutional Review Board (IRB): Campus committee, School of Education representative. This year (4/1/04-3/31/05), I have reviewed 53 proposals (36 of which had to be revised at least once). This number represents a 40% increase in the numbers of proposals reviewed since last year's annual report. In addition, I attended biweekly meetings (every other Wednesday, 3-5).

2003-2004: O' Max Gardner Award Committee (Campus)

2003-2004: Institutional Review Board: Campus Committee, School of Education representative. This year, I have reviewed 32 proposals and attended bi-weekly meetings.

Other Institutional Service Activities:

2005-2006: Institutional Review Board (IRB): Campus Committee, School of Education representative. This year (4/1/05-3/31/06), I have reviewed 29 proposals. In addition, I attend bi-weekly meetings (every other Wednesday, 3-5).

2004-2005: IRB Training: Prepared and presented two workshops for the School of Education regarding IRB training, with Carl Lashley. These workshops represent the IRB's ongoing outreach and education efforts to get the word out about IRB policies, procedures, and preparation. (9/23/04; 9-11:30 am & 5-7:30 pm).

State-wide assignments:

Faculty Advisor:

2003-2004: Faculty mentor for North Carolina Teaching Fellow

Service to the Profession

Board Member: PRJ Editorial Review Board

2006: Editorial board, Science Education March, 2005-present (Local).

2005: Elected to the editorial board, Science Education (March, 2005). (Local).

Chair: Committee / Task Force

2003: Session Chair, (Organized panel, invited participants, wrote proposal for paper session) Annual Meeting of the American Educational Research Association (April 2003) Chicago, IL. Negotiating meaning in collaborative projects: Competing discourses, identities and epistemologies (Local).

Invited Lecture

2004: Student voice in the STEM classroom, Invited plenary session speaker at a national meeting of Project Kaleidoscope, Richmond VA (Local).

Member: Committee/Task Force

2006: NARST, Member of Program Committee, (Strand Coordinator for Strand 6: Cultural, Social, and Gender Issues), Appointed March, 2005 for term that begins April, 2005-April 2007 (National).

2006: AERA, Program reviewer (Fall 2005) Division C: Learning, Section 3 (Science) (3 proposals) (National).

2006: NARST'S Early Career Research Award Committee, Nominated to serve on this committee (National).

2006: NARST'S Ethics and Equity Committee, Nominated to serve on this committee, (National).

2006: Co-Strand Coordinator for NARST's Cultural, Social, and Gender Issues, Part of the Program Committee with Cory Buxton. Involved coordinating the review of 65 NARST conference proposals and over 50 different reviewers (National).

2004: Member of editorial board for NARST/NSTA publication entitled Peers Matter, (Spring 2001-present) (National).

2004: American Educational Research Association (AERA), Science Teaching and Learning SIG, Best Paper Award Committee, (Spring 2003-present), Elected (National).

2004: National Association for Research in Science Teaching (NARST), Member of Research Committee, 2001-2004 (term extended through 2008) (National).

2004: National Association for Research in Science Teaching (NARST), Member of Research Committee, 2001-2004, Appointed (National).

Officer: Organization / Association

2004: Wrote a recommendation letter for Margaret Eisenhart, Professor at University of Colorado, for the University's most prestigious Distinguished Professor award, which she won. (Local).

Other Professional Service Activities

2004: AERA, (Fall 2004) Science Teaching and Learning SIG (3 proposals) Division C: Learning, Section 3 (Science) (3 proposals) (National).

2004: Program reviewer, NARST (Fall 2004) Section 2 (Learning: Classroom Contexts and Learner Characteristics) (3 proposals) Section 6 (Cultural, Social, and Gender Issues) (National).

2003: Program reviewer, National Association for Research in Science Teaching (Fall 2003) Section 6 (Equity) Preconference workshop proposals. (Local).

2003: Program reviewer, National Science Teachers Association (Fall 2003) Reviewed proposals for the NARST-sponsored sessions (National).

Reviewer - Article / Manuscript

2006: Manuscript Review, Journal of Research in Science Teaching 3 manuscripts reviewed (Local).

2006: Manuscript Review, Science Education 7 manuscripts reviewed (Local).

2005: Manuscript Review, School Science and Mathematics (2 manuscripts reviewed) (Local).

2005: Manuscript Review, Journal of Research in Science Teaching (1 manuscript reviewed) (Local).

2005: Manuscript Review, Science Education (5 manuscripts reviewed) (Local).

2005: Board of Reviewers, Science Education (April 2004-March 2005) (Local).

2004: Manuscript Review, PEERS Matter (Local).

2004: Manuscript Review, Journal of Research in Science Teaching (1 manuscript reviewed) (National).

2004: Manuscript Review, Science Education (3 manuscripts reviewed) (Local).

2004: Board of Reviewers, Science Education (top-ranked journal in the field of science education) (Local).

Reviewer - Book / Textbook

2005: Critical geographicacy: Understanding Visual representation practices in school science, by: Roth, W-M, Pozzer-Ardenghi, L., and Han, JY. Springer-Kluwer (Local).

Service to the Community

Member of a Committee

2005: USTEP collaborative school improvement project, with General Greene Elementary and Lindley Elementary (Terry Tomasek provided the lead on this project.)

2005: USTEP collaborative school improvement project with New Vision School, in Madison, NC

2005: Whole staff professional development at New Vision School of Math, Science, and Technology, August 4: what is lesson study? (Prepare for interns to visit school).

2005: Whole staff professional development at Gillespie Elementary School, September 13, 2005: Introduction to Japanese Lesson Study (with Dr. Sandy Webb). November & December, 2005: Japanese Lesson Study with Gillespie OSTEs and interns (co-planned this joint workshop with Dr. Webb-she facilitated the workshop).

2005: Whole staff professional development at New Vision School of Math, Science, and Technology, August 3, 4, &5, 2005: Learning to Teach Inquiry-based Science.

2003: Whole staff professional development at New Vision School, October 28, 2003: What is inquiry-based science?: Introducing the 5Es March 23, 2004: Talking Science: Collaboration During Science Activities

Other Community Service Activities

- 2005: Facilitated Japanese Lesson Study as professional development at New Vision School, Involved Facilitating the following Sessions with teachers: April 5: 5th grade planning-lessons 1 & 2, April 20: 5th grade planning-lesson 3, April 22: 5th grade observation of lesson 1, April 26: 5th grade observation of lesson2 and debrief meeting, April 29: 5th grade observation, May 3: 5th grade planning-lesson 4, May 5: 5th grade planning-lesson 4 continued, May 6: 5th grade observation of lesson 4 and debrief meeting, May 10: 5th grade planning-lesson 5, May 13: 5th grade observation of lesson 5 and debrief meeting, May 25: 5th grade observation of revised lesson 1 and 2, May 26: 5th grade debrief meeting, May 27: 5th grade observation of revised lesson 3 and 4, August 23: 5th grade planning lesson of 1 & 2, Sept.2: 5th grade debrief of lessons 1 & 2; plan lesson 3, Sept. 6: 5th grade debrief of lesson 3 and planning for lesson 4, Sept. 10: Interns participate in a lesson study with teachers (grades 1, 3, 4, 5), Sept. 15: 5th grade observation of lesson 5, Oct. 25: 3rd grade organizational meeting, Nov. 1: 3rd grade planning of soil unit, Nov.8: 3rd grade planning of assessments for soil unit, Jan.26: 3rd grade planning for composting unit.
- 2004: Facilitated Japanese lesson study as professional development at New Vision School, Involved the following Sessions: Nov. 11: 4th grade planning-lesson1, Nov. 14: 4th grade observation of lesson 1, Nov. 18th: 4th grade debrief of lesson 1; plan lesson 2, Nov. 21: 4th grade observation of lesson 2, Dec. 2: 4th grade debrief lesson 2; plan lesson 3, Dec.5: 4th grade observation of lesson 3, Dec. 9: 4th grade debrief of lesson 3; plan lesson 4, Dec 12: 4th grade observation of lesson 4

International

- 2003 - Carlone, H., & Bowen, M. (2003, July). *The fallacy of authentic science classrooms: Missing aspects of practicing science communities*. Presented at 7th International History, Philosophy & Science Teaching Conference, Winnipeg, Canada.

Honors-Awards-Grants

Honors:

- 2004: (August, 2004), Asked to be a member of the International Research Network for Culture Studies in Science Education.
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