

JULIE A. BIANCHINI

Gevirtz Graduate School of Education
University of California
Santa Barbara, CA 93106-9490
805.893.4110
email: jbianchi@education.ucsb.edu

EDUCATION

- Ph.D. Stanford University** 1995
Education. Concentration in Curriculum and Teacher Education.
Distributed Minor in Science in Context.
Dissertation: *How Do Middle School Students Learn Science?
A Study of Scientific Content and Social Processes in Cooperative Groups.*
Committee: Mary Budd Rowe, J. Myron Atkin, and Elizabeth G. Cohen.
- B.S. Stanford University** 1988
Biological Sciences, with Distinction.
President's Award for Academic Excellence, 1985. Phi Beta Kappa, 1987.

HONORS AND AWARDS

- Early Career Research Award for National Association for Research in Science Teaching 2001
- Outstanding Article in *Journal of Research in Science Teaching* 1998
- Stanford University School of Education Spencer Dissertation Fellowship 1994

PROFESSIONAL EXPERIENCE

- Associate Professor** 2003 - present
Department of Education, University of California, Santa Barbara, CA
Teach courses in teaching and learning, teacher education and professional development, and the nature of science to credential, master's and doctoral students. Research the teaching and learning of science in secondary, preservice, and induction settings, as well as teachers' views and practices related to issues of equity and diversity in science.
- Assistant Professor** 1997 - 2003
Department of Education, University of California, Santa Barbara, CA
Duties were the same as above.
- Assistant Professor** 1995 - 1997
Science Education Department, California State University, Long Beach, CA
Taught courses in science and science education to prospective and preservice teachers. Observed, evaluated, and advised science student teachers. Conducted research on the teaching and learning of science in courses for prospective elementary school teachers.
- Research Assistant** 1993 - 1995
OECD Case Studies Project, Stanford University, Stanford, CA
Collected data, analyzed, and helped write the Project 2061 case, one of eight case studies of science and mathematics innovation conducted in the United States. Contributed to one chapter in a US cross-case volume.

Research Assistant 1992 - 1995
Program for Complex Instruction, Stanford University, Stanford, CA

Observed and provided feedback to teachers implementing the Complex Instruction model of groupwork. Developed, administered, scored, and statistically analyzed science unit tests for research and evaluation purposes. Conducted professional development seminars for higher education faculty and public school teachers.

Science Teacher Education Supervisor 1991 - 1992
Stanford Teacher Education Program, Stanford University, Stanford, CA

Observed, evaluated, and advised preservice secondary school science teachers. Co-taught a professional issues seminar on management, curriculum, pedagogy, and lifelong education. Served as a teaching assistant and guest lecturer for Science Curriculum and Instruction, a secondary science methods course.

Curriculum Developer 1990 - 1995
Human Biology Middle Grades Life Science Curriculum Project
Stanford University, Stanford, CA

Developed group activities for this integrated natural, social, and health sciences curriculum. Assisted in refinement of curriculum for publication. Conducted teacher institutes on curriculum adaptation and implementation.

Science Teacher 1988 - 1990
Convent of the Sacred Heart High School, San Francisco, CA

Taught Biology, Advanced Biology, and Physics to 9th, 10th, and 12th graders.

P U B L I C A T I O N S

Bianchini, J. A. (2007). Foregrounding complexity in discussions of gender and science education. *Cultural Studies of Science Education*, 2(4), 960-967.

Bianchini, J. A. (2007). [Review of the book *Science education and student diversity: Synthesis and research agenda*]. *Science Education*, 91(3), 518-521.

Bianchini, J. A., & Cavazos, L. M. (2007). Learning from students, inquiry into practice, and participation in professional communities: Beginning teachers' uneven progress toward equitable science teaching. *Journal of Research in Science Teaching*, 44(4), 586-612.

Bianchini, J. A., Cavazos, L. M., & Rivas, M. (2003). At the intersection of contemporary descriptions of science and issues of equity and diversity: Student teachers' conceptions, rationales, and instructional practices. *Journal of Science Teacher Education*, 14(4), 259-290.

Bianchini, J. A. (2003). [Review of the book *Gender and Boyle's law of gases*]. *Science Education*, 87(3), 444-447.

Bianchini, J. A., Johnston, C. C., Oram, S. Y., & Cavazos, L. M. (2003). Learning to teach science in contemporary and equitable ways: The successes and struggles of first-year science teachers. *Science Education*, 87(3), 419-443.

Bianchini, J. A., & Kelly, G. J. (2003). Challenges of standards-based reform: The example of California's science content standards and textbook adoption process. *Science Education*, 87(3), 378-389.

Bianchini, J. A., & Solomon, E. M. (2003). Constructing views of science tied to issues of equity and diversity: A study of beginning science teachers. *Journal of Research in Science Teaching*, 40(1), 53-76.

- Bianchini, J. A., Hilton-Brown, B. A., & Breton, T. D. (2002). Professional development for university scientists around issues of equity and diversity: Investigating dissent within community. *Journal of Research in Science Teaching*, 39(8), 738-771.
- Bianchini, J. A., Whitney, D. J., Breton, T. D., & Hilton-Brown, B. A. (2002). Toward inclusive science education: University scientists' views of students, instructional practices, and the nature of science. *Science Education*, 86(1), 42-78.
- Bianchini, J. A., & Cavazos, L. M. (2001). Promoting inclusive science education through professional development: Challenges faced in transforming content and pedagogy. In A. C. Barton & M. D. Osborne (Eds.), *Teaching science in diverse settings: Marginalized discourses and classroom practice* (pp. 259-294). New York: Peter Lang.
- Bianchini, J. A., Cavazos, L. M., & Helms, J. V. (2000). From professional lives to inclusive practice: Science teachers and scientists' views of gender and ethnicity in science education. *Journal of Research in Science Teaching*, 37(6), 511-547.
- Bianchini, J. A., & Colburn, A. (2000). Teaching the nature of science through inquiry to prospective elementary teachers: A tale of two researchers. *Journal of Research in Science Teaching*, 37(2), 177-210.
- Bianchini, J. A. (1999). From here to equity: The influence of status on student access to and understanding of science. *Science Education*, 83(5), 577-601.
- Bianchini, J. A. (1998). What's the big idea? *Science & Children*, 36(2), 40-43.
- Bianchini, J., Holthuis, N., Schultz, S., Ballard, H., & Lotan, R. (1998). Groupwork activities. In H. C. Heller (Ed.), *Human biology life sciences for the middle grades: Teacher's guide*. Chicago, IL: Everyday Learning.
- Bianchini, J. A. (1997). Where knowledge construction, equity, and context intersect: Student learning of science in small groups. *Journal of Research in Science Teaching*, 34(10), 1039-1066.
- Cohen, E. G., Bianchini, J. A., Cossey, R., Holthuis, N. C., Mophew, C. C., & Whitcomb, J. A. (1997). What did students learn? 1982-1994. In E. G. Cohen & R. A. Lotan (Eds.), *Working for equity in heterogeneous classrooms: Sociological theory in practice* (pp. 137-165). New York: Teachers College Press.
- Atkin, J. M., Bianchini, J. A., & Holthuis, N. I. (1997). The different worlds of Project 2061. In S. A. Raizen & E. D. Britton (Eds.), *Bold ventures. Volume 2. Case studies of US innovations in science education* (pp. 131-246). Dordrecht, the Netherlands: Kluwer.
- Atkin, J. M., Kilpatrick, J., Bianchini, J. A., Helms, J. V., & Holthuis, N. I. (1997). The changing conceptions of science, mathematics, and instruction. In S. A. Raizen & E. D. Britton (Eds.), *Bold ventures. Volume 1. Patterns among innovations in science and mathematics education* (pp. 43-72). Dordrecht, the Netherlands: Kluwer.
- Lotan, R. A., Bianchini, J. A., & Holthuis, N. C. (1995). Complex Instruction in the science classroom. In R. Stahl (Ed.), *Cooperative learning in science: A handbook for teachers* (pp. 331-354). Menlo Park, CA: Addison Wesley.

P R E S E N T A T I O N S

Bianchini, J. A., & Brenner, M. E. (2007). *Beginning science and mathematics teachers' views and practices connected to equity: The role of induction*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Bianchini, J. A., Kang, E. J. S., & Kelly, G. J. (2007). *Investigating toxic risk and sharing results on-line: What do preservice science teachers know about science, inquiry, and literate practices?* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Bianchini, J. A., Brenner, M. E., Johnston, C. C., Courtright, A., & Kelly, G. J. (2006). *The teaching for equity in mathematics and science education professional development project: An examination of strategies to promote critical discussion about equity*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Brenner, M. E., Bianchini, J. A., Goto, K. F., Cavazos, L. M., & Kelly, G. J. (2006). Working toward equity through professional development: Changes in science and mathematics teachers' conceptions and self-reported practices. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Bianchini, J. A., Brenner, M. E., Courtright, A., Johnston, C. C., Robertson, L., Goto, K. F., Cavazos, L. M., & Kelly, G. J. (2005). Teaching for equity in science and mathematics education: Connections between equity conceptions and teacher research. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

Brenner, M. E., Bianchini, J. A., Courtright, A., Johnston, C. C., Robertson, L., Goto, K. F., Cavazos, L. M., & Kelly, G. J. (2005). Professional development strategies for promoting discourse about equity in mathematics and science teachers. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Bianchini, J. A., & Cavazos, L. M. (2003). *Learning to teach science to all: Beginning teachers' experiences in middle school science classrooms*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Bianchini, J. A., & Johnston, C. C. (2003). *Learning to teach science in equitable and excellent ways: An examination of science student teachers' views and practices*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

Bianchini, J. A. (2002). *Beginning science teachers' successes and struggles in teaching toward equity*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Bianchini, J. A., & Cavazos, L. M. (2002). *Learning to teach science for all: A beginning science teacher's story*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Bianchini, J. A., Oram, S. Y., Johnston, C. C., & Cavazos, L. M. (2002). *Learning to teach science in equitable and diverse ways: A qualitative study of preservice science education courses*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Bianchini, J. A. (2001). *Investigating a professional development project for university scientists: Successes and struggles in implementing inclusive instructional strategies*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA.

Bianchini, J. A., & Solomon, E. M. (2001). *Teaching the nature of science as inclusive to preservice science teachers: An action research study*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

Bianchini, J. A., Cavazos, L. M., Johnston, C., & Oram, S. (2001). *Investigating first-year science teachers in action: Successes and struggles in teaching towards equity*. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.

Bianchini, J. A., Hilton-Brown, B. A., & Breton, T. D. (2000). *Professional development for university scientists around issues of inclusion: Investigating community in action*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Bianchini, J. A., & Whitney, D. J. (2000). *Toward inclusive science education: Undergraduate students' views of and experiences in science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Cavazos, L. M., Bianchini, J. A., & Rivas, M. (2000). *Exploring student teachers' views of the nature of science and inclusive science instruction*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Bianchini, J. A., Cavazos, L. M., & Helms, J. V. (1999). *From professional lives to inclusive practice: Science educators' views of gender and ethnicity in science*. Paper presented at the annual meeting of the American Educational Research Association, Toronto, Canada.

Bianchini, J. A., Whitney, D. J., Breton, T. D., & Hilton-Brown, B. A. (1999). *Inclusive science education: Scientists' views and instructional practices*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

Bianchini, J. A. (1998). *Learning science content in an inquiry-oriented classroom: A case study*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Bianchini, J. A., & Colburn, A. (1998). *Inquiry into inquiry: What do students learn about science's nature through inquiry instruction?* Paper presented at the annual meeting the National Association for Research in Science Teaching, San Diego, CA.

Cavazos, L. M., Bianchini, J. A., & Helms, J. V. (1998). *From promoting awareness to changing practice: How do we teach teachers about gender, ethnicity, and science?* Paper presented at the annual meeting the National Association for Research in Science Teaching, San Diego, CA.

Bianchini, J. A. (1997). *An inquiry into inquiry: What lessons can students learn about the nature of science?* Paper presented at the annual meeting of American Educational Research Association Annual Meeting, Chicago, IL.

Bianchini, J. A., & Holthuis, N. C. (1996). *Entering the national reform fray: An OECD case study of Project 2061*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

Holthuis, N. C., & Bianchini, J. A. (1996). *Different worlds, different conceptions of reform: An OECD case study of Project 2061*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Bianchini, J. A. (1995). *How do middle school students learn science? An analysis of scientific content and social processes in cooperative groups*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Bianchini, J. A., Holthuis, N. C., & Nielsen, K. M. (1995). *Cooperative learning in the untracked middle school science classroom: A study of student achievement*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document)

Holthuis, N. C., & Bianchini, J. A. (1995). *Science education's selective reading of the history and philosophy of science: The case of Project 2061*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Bianchini, J. A., & Holthuis, N. C. (1994). *Learning in the untracked middle school science classroom*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Anaheim, CA.

Bianchini, J. A. (1993). *The high school biology textbook: A changing mosaic of gender, science, and purpose*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA. (ERIC Document)

G R A N T S

Gevirtz Graduate School of Education Funds for Excellence Capacity-Building Grant. 2002 - 2005
"The Center for Equity in Mathematics and Science Education."
PI was Bianchini. Co-PIs included M. Brenner, L. Cavazos, H. Ho, G. Kelly, Y. Okamoto, T. Ostwald, N. Terman, and J. Weissglass. \$400,000.

Gevirtz Graduate School of Education Funds for Excellence Planning Grant. 2001 - 2002
"Promoting Equity and Diversity in Mathematics and Science Education."
PI was Bianchini. Co-PIs included M. Brenner, L. Cavazos, H. Ho, G. Kelly, Y. Okamoto, T. Ostwald, N. Terman, and J. Weissglass. \$25,000.

National Science Foundation Small Grant for Exploratory Research. 2000 - 2002
"Beginning Science Teachers in Action: Investigating Misconnections between Preservice Content and Classroom Instruction." \$100,000.

University of California Regents' Junior Faculty Fellowship. Summer 1999
"The Nature of Science, Perceptions of Students, and Instructional Practices: What Can Science Educators Learn from Scientists about Inclusive Science Education?" \$5,333.

University of California Regents' Junior Faculty Fellowship. Summer 1998
"An Inquiry into Inquiry: Student Understanding of the Nature of Science." \$4,844.

Spencer Foundation Small Grants Program. 1998
"Toward Inclusive Science Education: Research on Faculty Development and Curricular Improvement at the Undergraduate Level." \$12,000.

Association of American Colleges and Universities Grant. 1997 - 2000
"Promoting Women and Science at CSULB." PI was L. Kingsford. Co-PIs included Bianchini, P. Rozee, T. Stanton, M. Merryfield, and M. Young Owl. \$20,000 with \$75,122 matching from California State University, Long Beach.

PROFESSIONAL ACTIVITIES

University Leadership

Faculty Director, Science and Mathematics Initiative, UC Santa Barbara 2006 - present

Associate Editor

Teacher Education Section, Associate Editor, *Science Education* 2006 - present

Editorial Board Member

Member, Editorial Board, *Science Education* 2002 - 2005

Member, Editorial Board, *Journal of Research in Science Teaching* 1998 - 2002

Ad-hoc Reviewer

Reviewer, Grant Proposals, National Science Foundation 2002 - present

Reviewer, Grant Proposals, Social Sciences and Humanities Research Council of Canada 2001 - present

Reviewer, Monographs and Books, Kluwer Academic Publishers 2000 - present

Reviewer, American Educational Research Journal 1999 - present

Reviewer, Annual Conference, American Educational Research Association 1997 - present

Reviewer, Annual Conference, National Association for Research in Science Teaching 1997 - present

State and National Committee Work

Member, Committee for Distinguished Contributions to Science Education through Research, National Association for Research in Science Teaching 2007 - present

Chair, Committee for the Outstanding Doctoral Research Award, National Association for Research in Science Teaching 2004 - 2005

Member, Awards Committee, National Association for Research in Science Teaching 2004 - 2005

Member, Committee for the Outstanding Doctoral Research Award, National Association for Research in Science Teaching 2002 - 2004

Member, Committee for Inclusive Science Education, Association for the Education of Teachers in Science 2000 - 2003

Reporter, Women Educators, an unaffiliated group of the American Educational Research Association 1999 - 2003

Member, Committee for the *Journal of Research in Science Teaching* Outstanding Paper, National Association for Research in Science Teaching 1999 - 2002

Member, Science Instructional Materials Advisory Panel, California Department of Education, Sacramento, CA 1998 - 1999

Consultant

Consultant, TIMSS Curriculum Frameworks Study, Pennsylvania State University, PA Summer 2000

Professional Development Coordinator and Project Evaluator, The Promoting Women and Scientific Literacy Project, California State University, Long Beach, CA 1997 - 2000

P R O F E S S I O N A L A F F I L I A T I O N S

American Association of University Women
American Educational Research Association
Association for Science Teacher Education
National Association for Research in Science Teaching
National Science Teachers Association
Phi Beta Kappa Honor Society
Research on Women and Education, SIG of American Educational Research Association
Research on Science Education, SIG of American Educational Research Association