CURRICULUM VITA

Personal Data

Paul Anthony Cobb

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615-343-1492

Institutions Attended

Ed.D., Mathematics Education, University of Georgia, 1983.

M.A., Mathematics Education, University of Georgia, 1980.

B.Sc. Hons., Mathematics, University of Bristol, England, 1975.

Academic Appointments

Vanderbilt University, Nashville, TN, Research Professor, 2017 – present.

Australian Catholic University, Brisbane, Australia, Honorary Professor, 2014 - present

Vanderbilt University, Nashville, TN, Peabody Chair in Teaching and Learning, 20/07 – 2016.

Vanderbilt University, Nashville, TN, Professor, Mathematics Education, 1992-2016.

Purdue University, W. Lafayette, IN, Professor, Mathematics Education, 1991-1992.

Purdue University, W. Lafayette, IN, Associate Professor, Mathematics Education, 1987-1991.

Purdue University, W. Lafayette, IN, Assistant Professor, Mathematics Education, 1983-1987.

Brighton, Hove and East Sussex Sixth Form College, Brighton, England, Mathematics Instructor, 1977-1978.

Headlands School, Swindon, England, Mathematics Instructor, 1975-1976.

Certifications

Post-graduate Certificate of Education, Bristol University, England, 1977.

Grants

An investigation of the relationship between first graders' beliefs, motivations, and conceptual development in arithmetic, Spencer Foundation, 1984-85, $9,500.

The development of primary level mathematics curricula emphasizing child-generated thinking strategies and algorithms (with G. Wheatley), National Science Foundation, 1985-88, $381,000.

Additional funding for: The development of primary level curricula emphasizing child-generated thinking strategies and algorithms (with G. Wheatley, T. Wood, & E. Yackel), National Science Foundation, 1987-1988, $52,000.

Children's construction of arithmetical algorithms in social context (with T. Wood, E. Yackel, & G. Wheatley), National Science Foundation, 1988-1992, $834,000.

The development of a cognitively based elementary school mathematics test (with T. Wood). Indiana Department of Education, 1988-1989, $37,000.

The coordination of psychological and sociological analyses in mathematics education (with T. Wood, E. Yackel, H. Bauersfeld, G. Krummheuer, & J. Voigt), Spencer Foundation, 1990-1993, $224,000.

Mathematizing, modeling, and communicating in reform classrooms (with E. Yackel & K. Gravemeijer), National Science Foundation, 1994-1998, $890,000.

Middle school design collaborative (with K. McClain), subcontract from the University of Wisconsin for the OERI National Research and Development Center on Achievement in School Mathematics and Science, 1996-2001, $1,060,000.

Computer mini-tools for exploratory data analysis (with K. McClain), National Science Foundation, 1997-1998, $106,000.

Developing and Sustaining Technology-Intensive Classrooms Where Mathematics is Learned With Understanding (with K. McClain and K. Gravemeijer), National Science Foundation, 1998 - 2002, $785,000.

Issues in Diversity: A Synthesis of Literature Relevant to Mathematics Classrooms which Promote Understanding (with L. Hodge & C. Lee), National Science Foundation, 1999 – 2001, $113,000.

Extension for Middle school design collaborative (with K. McClain), subcontract from the University of Wisconsin for the OERI National Research and Development Center on Achievement in School Mathematics and Science, 2001 – 2003, $480,000.

Supporting and Sustaining the Learning of Professional Teaching Communities in the Institutional Setting of the School and School District (with K. McClain), National Science Foundation, 2002 – 2006, $1,463,000.

Investigating the Practice of School Improvement: Theory, Methodology and Relevance (with J. Spillane & A. Sfard). Rockefeller Foundation, 2004.

Designing Learning Organizations for Instructional Improvement in Mathematics (with T. Smith). National Science Foundation, 2006-2012, $2,408,000.

Evaluating Math Recovery With Student Outcomes (with T. Smith, D. Farran, and D. Cordray). Institute of Educational Sciences, 2007-2009, $1,120,000.

Postdoctoral Training: Rigorous Research Methods in the Learning Sciences (with G. Biswas, B. Rittle Johnson, and T. Smith). Institute of Educational Sciences, 2008-2012, $732,000.

Equity and Access to High-Quality Instruction in Middle School Mathematics (with K. Jackson, R. Jimenez, & R. Milner). National Science Foundation, 2008-2010, $199,000.

Supplementary Funding for Evaluating Math Recovery With Student Outcomes (with D. Cordray). Institute of Educational Sciences, 2009-2010, $133,000.

Supplementary Funding for Designing Learning Organizations for Instructional Improvement in Mathematics (with T. Smith). National Science Foundation, 2009 – 2011, $356,000.

Investigating and Supporting the Development of Ambitious and Equitable Mathematics Instruction at Scale (with T. Smith, K. Jackson, I. Horn, E. Henrick, and K. Frank). National Science Foundation, 2011-2017, $4,534,000.

Cross-National Comparison of School and District Supports for High-Quality Mathematics Instruction in the U.S. and China (with E. Henrick and T. Smith). National Science Foundation, 2013-2016, $200,000.

Supplementary Funding for Investigating and Supporting the Development of Ambitious and Equitable Mathematics Instruction at Scale (with J. Wilson). National Science Foundation, 2015-2016, $187,000.

Assessing the Effectiveness of Research Practice Partnerships at the District Level (with E. Henrick, K. Jackson, and W. Penuel), 2015-2017, W.T. Grant Foundation, $25,000.

Development of Practical Measures for Improving the Quality of Mathematics Classroom Practice (with K. Jackson and E. Henrick), 2016-2018, Spencer Foundation, $400,000.

Improving the rigor of mathematics tasks in middle grades MNPS classrooms (with E. Henrick), subcontract from REL Appalachia, 2016, $50,000.

Improving the Implementation of Rigorous Instructional Materials in Middle-Grades Mathematics: Developing a System of Practical Measures and Routines (with E. Henrick), National Science Foundation, 2016-2021, $1,530,000.

Professional Organizations

National Council of Teachers of Mathematics

National Society for the Study of Education

American Education Research Association

AERA Special Interest Group for Research in Mathematics Education

AERA Special Interest Group for Cognitive Structure and Conceptual Change.

International Group for the Psychology of Mathematics Education (PME)

North American Chapter of PME

Awards and Honors

Sir Alan Newell Visiting Fellowship, Griffith University, Brisbane, Australia, 1991-1992.

Journal for Research in Mathematics Education Outstanding Article, 1995

Invited Fellow, Center for Advanced Studies in the Behavioral Sciences, 2000

Member, National Academy of Education, 2002-present

Joe B. Wyatt Distinguished University Professor, Vanderbilt University, 2003-2004

Hans Freudenthal Medal for cumulative research program over the prior ten years, International Commission on Mathematics Instruction, 2005

Member, founding class of the American Educational Research Association Fellow's Program, 2008-present

University of Georgia College of Education Lifetime Achievement Alumni Award, 2009

Sylvia Scribner Award of Division C of the American Educational Research Association for a program of work conducted within the last ten years that represents a significant advancement in our understanding of learning and instruction, 2010

Linking Research and Practice Outstanding Publication Award (with K. Jackson, E. Shahan, & L. Gibbons), National Council of Teachers of Mathematics, 2013

Distinguished Scholar, American Educational Research Association Special Interest Group for Research in Mathematics Education, 2017

Articles in Refereed Journals

Steffe, L. P., Firth, D., & Cobb, P. (1981). On the nature of counting activity: Perceptual unit items. *For the Learning of Mathematics, 2*, 13-21.

Cobb, P. (1983). Pretext: Critique of Curriculum and change: Piaget's organismic origins, William E. Doll, Jr., *Journal of Curriculum Theorizing, 5* (2), 62-74.

Cobb, P. (1983). The epistemology debate: A personal reflection. *Problem Solving, 5*, (12), 1-4.

Cobb, P., & Steffe, L. P. (1983). The constructivist researcher as teacher and model builder. *Journal for Research in Mathematics Education, 14*, 83-94.

Steffe, L. P., & Cobb, P. (1983). Cognitive development and children's solutions to verbal arithmetic problems: A critique. *Journal for Research in Mathematics Education, 14*, 74-76.

Cobb, P., & von Glasersfeld, E. (1984). Piaget's scheme and constructivism, *Genetic Epistemology, 13* (2), 9-15.

Bush, W. S., & Cobb, P. (1984). Using computers in the classroom: A problem for teacher education. *Action in Teacher Education, 5*, (4), 9-14.

Steffe, L. P., & Cobb, P. (1984). Children's construction of multiplicative and divisional concepts, *Focus on Learning Problems in Mathematics, 6* (1 & 2), 11-29.

von Glasersfeld, E., & Cobb, P. (1984). Knowledge as environmental fit. *Man-environment Systems, 13*, 216-224.

Cobb, P. (1985). Two children's anticipations, beliefs, and motivations. *Educational Studies in Mathematics, 16*, 111-126.

Cobb, P. (1985). A reaction to three early number papers. *Journal for Research in Mathematics Education, 16*, 141-145.

Cobb, P. (1985). Mathematical actions, mathematical objects, and mathematical symbols. *Journal of Mathematical Behavior, 4*, 127-134.

Cobb, P. (1986). Concrete can be abstract: A case study. *Educational Studies in Mathematics, 17*, 37-48.

Cobb, P. (1986). Contexts, goals, beliefs, and learning mathematics. *For the Learning of Mathematics, 6* (2), 2-9.

Cobb, P. (1987). An analysis of three models of early number development. *Journal for Research in Mathematics Education, 18*, 163-179.

Cobb, P. (1987). Information-processing psychology and mathematics education: A constructivist perspective. *Journal of Mathematical Behavior, 6*, 3-40.

Cobb, P. (1987). An investigation of young children's academic arithmetic contexts. *Educational Studies in Mathematics, 18,* 109-124.

Cobb, P. (1988). The tension between theories of learning and instruction in mathematics education. *Educational Psychologist, 23*, 87-103. [Reprinted in V. Lee (1990) (Ed.), *Children's learning in school* (pp. 137-151). Milton Keynes: Open University.]

Cobb, P., & Wheatley, G. (1988). Children's initial understandings of ten. *Focus on Learning Problems in Mathematics, 10* (3), 1-28.

Cobb, P., Wood, T., Yackel, E., Wheatley, G., & Merkel, G. (1988). From research to practice: Creating a problem solving atmosphere. *Arithmetic Teacher, 36* (1), 46-47.

Cobb, P. (1989). Experiential, cognitive, and anthropological perspectives in mathematics education. *For the Learning of Mathematics, 9* (2), 32-42. [Reprinted in A. J. Bishop (Ed.) (2010), *Mathematics education* (Vol. 4, pp. 274-294). London: Routledge].

Cobb, P. (1990). A constructivist perspective on information processing theories of mathematical activity. *International Journal of Educational Research, 14*, 67-92.

Nicholls, J., Cobb, P., Wood, T., Yackel, E., & Patashnick, M. (1990). Goals and beliefs in mathematics: Individual differences and consequences of a constructivist curriculum. *Journal for Research in Mathematics Education. 21*, 109-122.

Wood, T., Cobb, P., & Yackel, E. (1990). The contextual nature of teaching: A case study of teaching mathematics and reading. *Elementary School Journal, 90*, 497-514.

Yackel, E., Cobb, P., Wood, T., & Merkel, G. (1990). Research into practice: Experience, problem solving, and discourse as central aspects of constructivism. *Arithmetic Teacher, 38* (4), 34-35.

Cobb, P. (1991) Reconstructing elementary school mathematics. *Focus on Learning Problems in Mathematics, 13* (2), 3-32.

Cobb, P., Wood, T., & Yackel, E. (1991). Philosophy of science as a source of analogies for analyzing classroom life. *Science Education, 75*, 23-44.

Cobb, P., Wood, T., Yackel, E., Nicholls, J., Wheatley, G., Trigatti, B., & Perlwitz, M. (1991). Evaluation of a second grade problem-centered mathematics project. *Journal for Research in Mathematics Education, 22*, 3-29.

Wood, T., Cobb, P., & Yackel, E. (1991). Change in teaching mathematics: A case study. *American Educational Research Journal, 28*, 587-616.

Yackel, E., Cobb, P., & Wood, T. (1991). Small group interactions as a source of learning opportunities in second grade mathematics. *Journal for Research in Mathematics Education, 22,* 390-408.

Cobb, P., Wood, T., & Yackel, E. (1992). Interaction and learning in classroom situations. *Educational Studies in Mathematics, 23*, 99-122.

Cobb, P., Wood, T., Yackel, E., & McNeal, G. (1992). Characteristics of classroom mathematics traditions: An international analysis, *American Educational Research Journal, 29*, 573–604. [Reprinted in A. J. Bishop (Ed.) (2010). *Mathematics Education* (vol. 2, pp. 237-264). London: Routledge.]

Cobb, P., Wood, T., Yackel, E., & Perlwitz, M. (1992). A longitudinal, follow-up assessment of a second-grade problem centered mathematics project. *Educational Studies in Mathematics, 23*, 483-504.

Cobb, P., Yackel, E., & Wood, T. (1992). A constructivist alternative to the representational view of mind in mathematics education, *Journal for Research in Mathematics Education, 23*, 2-33.

Cobb, P. (1994). Guest editorial: Theories of mathematical learning. *Educational Studies in Mathematics, 26*, 105-109.

Cobb, P., Perlwitz, M., & Underwood, D. (1994). Construction individuelle, acculturation mathématique et communauté scolaire. *Revue des Sciences de l'Éducation*, 20, 41-62.

Cobb, P. (1994). Constructivism in mathematics and science education. *Educational Researcher, 23*(7), 4.

Cobb, P. (1994). Where is the mind? Constructivist and sociocultural perspectives on mathematical development. *Educational Researcher, 23*(7), 13-20. [Reprinted in Fosnot, C. (Ed.) (1996*). Constructivism: Theory, perspectives, and practice* (pp. 34-52). New York: Teachers College Press, and in P. Murphy (Ed.) (1999), *Learners' learning and assessment*. Milton Keynes, England: Open University Press].

Cobb, P. (1995). The relevance of practice: A response to Orton. *Journal for Research in Mathematics Education, 26*, 230-253.

Cobb, P. (1995). Cultural tools and mathematical learning: A case study. *Journal for Research in Mathematics Education, 26*, 362-385.

Cobb, P. (1995). Continuing the conversation: A response to Smith. *Educational Researcher, 24*(7), 25-27.

Yang, M. T-L., & Cobb, P. (1995). A cross-cultural investigation into the development of place-value concepts of children in Taiwan and the United States. *Educational Studies in Mathematics, 28*, 1-33.

Cobb, P., & Whitenack, J. (1996). A method for conducting longitudinal analyses of classroom videorecordings and transcripts. *Educational Studies in Mathematics, 30*, 213-228.

Yackel, E., & Cobb, P. (1996). Sociomathematical norms, argumentation, and autonomy in mathematics. *Journal for Research in Mathematics Education, 27*, 458-477. [Reprinted in P. K. Smith & A. D. Pellegrino (Eds.) (2000), *Major writings in the psychology of education* (vol. C, The school curriculum, pp. 271-293). London: Routledge.]

Cobb, P., & Yackel, E. (1996). Constructivist, emergent, and sociocultural perspectives in the context of developmental research. *Educational Psychologist, 31*, 175-190. [Reprinted in T. P. Carpenter, J. Dossey, J., J. & Koehler (Eds.)(2004*). Classics in mathematics education research* (pp. 208-226). Reston, VA: National Council of Teachers of Mathematics.]

Cobb, P., Boufi, A., McClain, K., Whitenack, J. (1997). Reflective discourse and collective reflection. *Journal for Research in Mathematics Education, 28*, 258-277.

Cobb, P. (1997.) Accounting for mathematical learning in the social context of the classroom (part one). *L'Educazione Mathematica, 5*, 65-81.

Cobb, P. (1997.) Accounting for mathematical learning in the social context of the classroom (part two). *L'Educazione Mathematica, 5*, 123-142.

Cobb, P. (1998). Theorizing about mathematical conversations and learning from practice. *For the Learning of Mathematics, 18* (1), 46-48.

Cobb, P. (1998). Cognitive science, instructional design, and teaching. *Issues in Education, 3*, 51-58.

Cobb. P. (1998). Learning from distributed theories of intelligence. *Mind, Culture, and Activity, 5*, 187–204.

Cobb, P. (1999). Individual and collective mathematical learning: The case of statistical data analysis. *Mathematical Thinking and Learning, 1*, 5–44.

Cobb, P., & Bowers, J (1999). Cognitive and situated perspectives in theory and practice. *Educational Researcher, 28* (2), 4–15.

Bowers, J. S., Cobb, P., & McClain, K. (1999). The evolution of mathematical practices: A case study. *Cognition and Instruction, 17*, 25 – 64.

Yackel, E., Cobb, P., & Wood, T. (1999). The interactive constitution of mathematical meaning in one second grade classroom: An illustrative example. *Journal of Mathematical Behavior, 17*, 469-488

Cobb, P., Stephan, M., McClain, K., & Gravemeijer, K. (2001). Participating in classroom mathematical practices. *Journal of the Learning Sciences, 10*, 113–164.

McClain, K. & Cobb, P. (2001). The development of sociomathematical norms in one first-grade classroom. *Journal for Research in Mathematics Education, 32*, 234-266.

McClain, K., & Cobb, P. (2001). Supporting students' ability to reason about data. *Educational Studies in Mathematics, 45*, 103-129.

Cobb, P. (2002). Theories of knowledge and instructional design: A response to Colliver. *Teaching and Learning in Medicine, 14*, 52-55.

Cobb, P. (2002). Reasoning with tools and inscriptions. *Journal of the Learning Sciences, 11*, 187-216.

McGatha, M., Cobb, P., & McClain, K. (2002). An analysis of students' initial statistical understandings: Developing a conjectured learning trajectory. *Journal of Mathematical Behavior*, *16*, 339-355.

Nasir, N. S., & Cobb, P. (2002). Diversity, equity, and mathematical learning. *Mathematical Thinking and Learning, 4*, 91-102.

Cobb, P., & Hodge, L. (2002). A relational perspective on issues of cultural diversity and equity as they play out in the mathematics classroom. *Mathematical Thinking and Learning, 4*, 249-284.

Cobb, P. (2003). Epistemological world views, Subject matter contexts, and the institutional setting of teaching. *Issues in Education, 8*, 149-158.

Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher, 32* (1), 9-13.

Cobb, P., McClain, K., & Gravemeijer, K. (2003). Learning about statistical covariation. *Cognition and Instruction, 21*, 1-78.

Cobb, P., McClain, K., de Silva Lamberg, T., & Dean, C. (2003). Situating teachers' instructional practices in the institutional setting of the school and school district. *Educational Researcher, 32* (6), 13-24.

diSessa, A. A., & Cobb, P. (2004). Ontological innovation and the role of theory in design experiments. *Journal of the Learning Sciences, 13*, 77-103.

Cobb, P. (2004). Mathematics, literacies, and identity. *Reading Research Quarterly, 39*, 332-337.

Gresalfi, M., & Cobb, P. (2006). Cultivating students' discipline-specific dispositions as a critical goal for pedagogy and equity. *Pedagogies, 1*, 49-58.

Cobb, P., & McClain, K. (2006). The collective mediation of a high stakes accountability program: Communities and networks of practice. *Mind. Culture, and Activity*, *13*, 80-100.

Gravemeijer, K.P.E., & Cobb, P. (2007). Ontwikkelingsonderzoek als methode voor onderzoek rond innovatieve leergangen, *Pedagogische Studiën 84 (5*), pp. 330-339.

Cobb, P. & Hodge, L. L. (2008). Inclusive spaces for competence and engagement: Investigating identity and access in the classroom. *Journal of Women and Minorities in Science and Engineering, 14*, 339-360.

Cobb, P., & Jackson, K. (2008). The consequences of experimentalism in formulating recommendations for policy and practice in mathematics education. *Educational Researcher*, *37*(9), 573-581.

Cobb, P., Zhao, Q., & Visnovska, J. (2008). Learning from and adapting the theory of realistic mathematics education. *Education and Didactique*, *2*, 105-124.

Cobb, P., Gresalfi, M., & Hodge, L. L. (2009). An interpretive scheme for analyzing the identities that students are developing in mathematics classrooms. *Journal for Research in Mathematics Education*, *40*, 40-68.

Hodge, L. & Cobb, P. (2009). Competence and engagement: Investigating identity and access in the classroom. *Journal of Women and Minorities in Science and Engineering*, 14(4), 339-360.

Cobb, P., Zhao, Q., & Dean, C. (2009). Conducting design experiments to support teachers' learning: A reflection from the field. *Journal of the Learning Sciences*, *18*, 165-199.

Cao, Y., Wang, L., & Cobb, P. (2010). Introduction to the high school part of the American Common Core State Standards for Mathematics, *Journal of Mathematics Education, 19* (5), 8-11.

Cobb, P. (2011). Implications of Ernst von Glasersfeld's constructivism for supporting the improvement of teaching on a large scale. *Constructivist Foundations, 6,* 157-161.

Cobb, P., & Jackson, K. (2011). Assessing the quality of the Common Core State Standards for Mathematics. *Educational Researcher*, 40, 183-185.

Cobb, P., & Jackson, K. (2011). Towards an empirically grounded theory of action for improving the quality of mathematics teaching at scale. *Mathematics Teacher Education and Development, 13,* 6-33.

Gresalfi, M. S., & Cobb, P. (2011). Negotiating identities for mathematics teaching in the context of professional development. *Journal for Research in Mathematics Education*, *42*, 270-304.

Cobb, P., & Jackson, K. (2012). Analyzing educational policies as designs for supporting learning *Journal of the Learning Sciences*, *21*, 487-521.

Jackson, K., Shahan, E., Gibbons, L., & Cobb, P. (2012). Setting up complex tasks. *Mathematics Teaching in the Middle School, 18*, 24-29.

Cobb, P., & Jackson, K. (2013). Lessons for mathematics education from the practices of African American mathematics teachers. *Teachers College Record*, *115*, 1-14.

Smith, T. M., Cobb, P., Farran. D., Cordray, D., & Munter, C. (2013). Evaluating Math Recovery: Assessing the causal impact of a diagnostic tutoring program on student achievement. *American Educational Research Journal*, *50*, 397-428.

Visnovska, J., & Cobb, P. (2013). Classroom video in a teacher professional development program: Community documentational genesis perspective. *ZDM – The International Journal of Mathematics Education*, *45*, 1017-1029.

Munter, C., Garrison, A., Cobb, P., & Cordray, D. S. (2014). Assessing fidelity of implementation of an unprescribed, diagnostic mathematics intervention. *Journal of Research on Educational Effectiveness, 7,* 83-113.

Cobb, P., & Jackson, K. (2015). Supporting teachers' use of research-based instructional sequences. *ZDM – The International Journal **of** Mathematics Education*, *47*, 1027-1038.

Dunlap, C., Webster, M., Jackson, K. & Cobb, P. (2015). Schooling Leaders on the Common Core. Phi Delta Kappan Common Core Writing Project. Available at http://www.kappancommoncore.org/schooling-leaders-on-the-common-core/

Jackson, K., Cobb, P., Wilson, J., Webster, M., Dunlap, C., & Applegate, M. (2015). Investigating the development of mathematics leaders' capacity to support teachers' learning on a large scale. *ZDM – The International Journal **of** Mathematics Education*, *47*, 93-104.

Visnovska, J., & Cobb, P. (2015). Learning about whole-class scaffolding from a teacher professional development study. *ZDM – The International Journal of Mathematics Education*, *47*, 1133-1145.

Henrick, E., Munoz, M. A., & Cobb, P. (2016). Research-practice partnerships: Redefining the ways researchers and district leaders work together for school improvement. *Phi Delta Kappan*, *98*, 23-27.

Hodge, L. L., & Cobb, P. (2016). Two views of culture and their implications for mathematics teaching and learning. *Urban Education*, *51*, 1-25.

Munter, C., Cobb, P., & Shekell, C. (2016). The role of program theory in evaluation research: A consideration of the What Works Clearinghouse standards in the case of mathematics education. *American Journal of Evaluation*, *37*, 7-20.

Gibbons, L., & Cobb, P. (in press). Identifying coaching practices implicated in designing teacher learning opportunities. *Elementary School Journal*.

Gibbons, L., & Cobb, P. (in press). Focusing on teacher learning opportunities to identify potentially productive coaching activities. *Journal of Teacher Education*.

Rigby, J., Larbi-Cherif, A., Rosenquist, B., Dunlap, C., Cobb, P., & Smith, Y.M. (in press). Administrator observation and feedback: Does it lead towards improvement in inquiry-oriented math instruction? *Educational Administration Quarterly*.

Other Publications

Books

Steffe, L. P., von Glasersfeld, E., Richards, J., & Cobb, P. (1983). *Children's counting types: Philosophy, theory, and applications*. New York: Praeger Scientific. 152 pages.

Steffe, L. P., & Cobb, P. (1988). *Young children's construction of arithmetical meanings and strategies*. New York: Springer-Verlag. 343 pages.

Edited Books

Cobb, P. (Ed.) (1994). *Learning mathematics: Constructivist and interactionist theories of mathematical development*. Dordrecht, Netherlands: Kluwer Academic.

Cobb, P., & Bauersfeld, H. (Eds.) (1995). *Emergence of mathematical meaning: Interaction in classroom cultures*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Nesher, P., Steffe, L. P., Cobb, P., Goldin, G., & Greer, B. (Eds.) (1996). *Theories of mathematical learning*. Hillsdale, NJ: Lawrence Erlbaum Associates. [Editor of section on sociological and anthropological perspectives.]

Cobb, P., Yackel, E., & McClain, K. (Eds.) (2000). *Communicating and symbolizing in mathematics: Perspectives on discourse, tools, and instructional design*. Mahwah, NJ: Lawrence Erlbaum Associates.

Nasir, N. S., & Cobb, P. (Eds.), (2007). *Improving access to mathematics: Equity and diversity in the classroom*. New York: Teachers College Press.

Edited Journals

Cobb, P. (Ed.) (1994). *Educational Studies in Mathematics, 26* (2 & 3). [Special issue on theories of mathematical development.]

Cobb, P. (Ed.) (1994). *Educational Researcher, 23* (7). [Special issue on constructivism in mathematics and science education.]

Nasir, N. S., & Cobb, P. (Eds.) (2002). *Mathematical Thinking and Learning, 4* (2 & 3). [Special issue on cultural diversity and equity in mathematics education].

Edited Monographs

Wood, T., Cobb, P., Yackel, E., & Dillon, D. (1993) (Eds.). *Rethinking elementary school mathematics: Insights and issues.* Journal for Research in Mathematics Education Monograph No. 6. Reston, VA: National Council of Teachers of Mathematics. 122 pages.

Stephan, M., Bowers, J., & Cobb, P. (Eds.) (2003). *Supporting students' development of measuring conceptions: Analyzing students' learning in social context*. Journal for Research in Mathematics Education Monograph. Reston, VA: National Council of Teachers of Mathematics.

Edited Conference Proceedings

Booker, G., Cobb, P., & de Mendicuti, T.N. (1990). (Eds.) *Proceedings of the Fourteenth Conference of the International Group for the Psychology of Mathematics Education*. Mexico City: Program Committee of the 14th PME Conference. 934 pages.

Book Chapters

Cobb, P., & Merkel, G. (1989). Thinking strategies as an example of teaching arithmetic through problem solving. In P. Trafton (Ed.), *1989 Yearbook of the National Council of Teachers of Mathematics*, (pp. 70-81). Reston, VA: NCTM.

Cobb, P., Yackel, E., & Wood T. (1989). Young children's emotional acts while doing mathematical problem solving. In D. McLeod & V. M. Adams(Eds.), *Affect and mathematical problem solving: A new perspective* (pp. 117-148). New York: Springer-Verlag.

Cobb, P. (1990). Children's construction of arithmetical knowledge in social context. In A. Bishop, P. Damerow, & C. Keitel (Eds.), *Mathematics, education, and society* (pp. 181-183). Geneva: UNESCO.

Cobb, P. (1990). Multiple perspectives. In L. P. Steffe & T. Wood (Eds.), *Transforming children's mathematics education: International Perspectives* (pp. 200-215). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cobb, P., Wood, T., & Yackel, E. (1990). Classrooms as learning environments for teachers and researchers. In R.B. Davis, C.A. Maher, & N. Noddings (Eds.), *Constructivist views on the teaching and learning of mathematics*. *Journal for Research in Mathematics Education Monograph No. 4* (pp. 125-146). Reston, VA: National Council of Teachers of Mathematics.

Nicholls, J., Cobb, P., Wood, T. Yackel, E., & Wheatley, G. (1990). In G. Kulm (Ed.), *Assessing higher order thinking in mathematics*, (pp. 137-154). Washington, DC: American Association for the Advancement of Science.

Wheatley, G. H., & Cobb, P. (1990). Analysis of young children's spatial constructions. In L. P. Steffe & T. Wood (Eds.), *Transforming children's mathematics education: International Perspectives* (pp. 167-173). Hillsdale, NJ: Lawrence Erlbaum Associates.

Yackel, E., Cobb, P., Wood, T., Wheatley, G., & Merkel, G. (1990). The importance of social interaction in children's construction of mathematical knowledge. In T. Cooney (Ed.), *1990 Yearbook of the National Council of Teachers of Mathematics* (pp. 12-21). Reston, VA: NCTM.

Cobb, P., Wood, T., & Yackel, E. (1991). Learning through problem solving: A constructivist approach to second grade mathematics. In E. von Glasersfeld (Ed.), *Constructivism in mathematics education* (pp. 157-176). Holland: Kluwer.

Cobb, P., Yackel, E., & Wood, T. (1991). Curriculum and teacher development: Psychological and anthropological perspectives. In E. Fennema, T. P. Carpenter, & S. J. Lamon (Eds.), *Integrating research on teaching and learning mathematics* (pp. 83-120). Albany, NY: SUNY Press.

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Cobb, P. (1986, July). *An exploratory investigation into the sensory-motor and conceptual origins of the basic addition facts*. Tenth Conference of the International Group for the Psychology of Mathematics Education, London, England.

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Cobb, P. (1987, July). *A year in the life of a second grade class: Cognitive perspective*. Eleventh Conference of the International Group for the Psychology of Mathematics Education, Montreal, Canada.

Cobb, P. (1987, July). *Constructivism: Where are we?* Eleventh Conference of the International Group for the Psychology of Mathematics Education, Montreal, Canada.

Cobb, P. (1987, July). *Children's initial conceptions of ten* (with E. Yackel). Eleventh Conference of the International Group for the Psychology of Mathematics Education, Montreal, Canada.

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Cobb, P. (1988, June). *Constructivism and the mathematics classroom* (with T. Wood & E. Yackel). Open University, England.

Cobb, P. (1988, July). *Two children's construction of arithmetical knowledge in social context*. Sixth International Congress on Mathematics Education, Budapest, Hungary.

Cobb, P. (1988, July). *Analysis of young children's spatial constructions* (with G. Wheatley). Sixth International congress on Mathematics Education, Budapest, Hungary.

Cobb, P.(1989, July). *An analysis of the emotional acts of young children while learning mathematics* (with E. Yackel and T. Wood). Thirteenth conference of the International Group for the Psychology of Mathematics Education, Paris, France.

Cobb, P. (1989, November). *Constructivist perspectives on elementary mathematics education* (with T. Wood). State University of Utrecht, The Netherlands.

Cobb, P. (1989, December). *Constructing mathematical knowledge in the context of social interaction*. Open University, England.

Cobb, P. (1990, June). *Children's construction of mathematical knowledge*. Eighth International Congress on Cybernetics and Systems, New York City.

Cobb, P. (1991, May). *Philosophical and methodological perspectives in mathematics education*. University of British Columbia, Vancouver, Canada.

Cobb, P. (1991, July). *Some thoughts about individual learning, group development, and social interaction*. Fifteenth conference of the International Group for the Psychology of Mathematics Education, Assisi, Italy.

Cobb, P. (1991, October). *Methodological issues in the context of a research program*. Griffith University, Brisbane, Australia.

Cobb, P. (1991, November). *Characteristics of classroom mathematics traditions*. Griffith University, Brisbane, Australia.

Cobb, P. (1992, August). *An analysis of how mathematical concepts are formed by elementary school students*. International Congress on Mathematics Education, Québec City, Canada.

Cobb, P. (1992, August). *Social and anthropological perspectives in mathematics education: A synthesis*. International Congress on Mathematics Education, Québec City, Canada.

Cobb, P. (1992, December). *Individual construction, mathematical enculturation, and the classroom community*. Nuffield Foundation Conference on Children's Learning of Mathematics, Exeter, England.

Cobb, P. (1992, December). *Activity theory and constructivism: A consideration of their similarities and differences as they relate to mathematics education*. University of London, England.

Cobb, P. (1993, June). *A qualitative methodology for the analysis of small group work.* Freudenthal Institute, State University of Utrecht, The Netherlands.

Cobb, P. (1993, July). *Some thoughts about cultural tools and mathematical learning*. Seventeenth conference of the International Group for the Psychology of Mathematics Education, Tsukuba, Japan.

Cobb, P. (1993, October). *A constructivist perspective on the culture of the mathematics classroom* (with E. Yackel). Conference on "The Culture of the Mathematics Classroom: Analyzing and reflecting upon the conditions of change," Osnabrück, Germany.

Cobb, P. (1994, August). *A summary of four case studies of the relationship between mathematical learning and small group interactions*. EighteenthConference of the International Group for the Psychology of Mathematics Education, Lisbon, Portugal.

Cobb, P.* (1994, August). *Symposium on Constructivist Analyses of Inquiry Mathematics Classrooms* (with E. Yackel). Pretoria, South Africa.

Cobb, P.* (1994, September). *Theories of mathematical learning and constructivism: A personal view*. Symposium on Trends and Perspectives in Mathematics Education, University of Klagenfurt, Austria.

Cobb, P.* (1995, July). *Supporting young children's development of mathematical power* (with K. McClain & J. Whitenack). Paper presented at the annual meeting of the Australian Association of Teachers of Mathematics, Darwin, Australia.

Cobb, P.* (1995, July). *Reflective discourse and collective reflection* (with A. Boufi, K. McClain, & J. Whitenack). Paper presented at the annual meeting of the Mathematics Education Research Group of Australasia, Darwin, Australia.

Cobb, P. (1995, July). *A preliminary report of a first-grade teaching experiment: Mathematizing, modeling and mathematical learning in the classroom microculture* (with J. Whitenack & K. McClain). Paper presented at the Nineteenth Annual Meeting of the International Group for the Psychology of Mathematics Education, Recife, Brazil.

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Cobb, P. (1995, December). *Constructivism in theory and practice*. Weismann Institute, University of Tel Aviv, Israel.

Cobb, P. (1995, December). *Semiotic processes in the mathematics classroom*. University of Haifa, Israel.

Cobb, P. (1996, July). *The role of imagery and discourse in supporting the development of mathematical meaning* (with Kay McClain). Paper presented at the Twentieth Annual Meeting of the International Group for the Psychology of Mathematics Education, Valencia, Spain.

Cobb, P.* (1996, July). *Modeling, semiotics, and mathematical learning*. Paper presented at the Eighth International Congress on Mathematical Education, Seville, Spain.

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Cobb, P. (1996, September). *Reflective discourse and collective reflection*. Paper presented at the Conference on the Growing Mind (Centennial of Jean Piaget's Birth), Geneva, Switzerland.

Cobb, P.* (1996, December). *Instructional design and reform: Locating developmental research in context*. International Experts' meeting on the Role of Contexts and Models in Mathematics Learning, Leiden, the Netherlands.

Cobb, P.* (1997, June). *Mathematics, discourse, and learning*. History and Philosophy of Science and Science Teaching Conference, Calgary, Canada.

Cobb, P.* (1997, July). *Constructivism as an orienting theory for mathematics teaching*. History and Philosophy of Science and Science Teaching Conference, Calgary, Canada.

Cobb, P. (1997, July). *Learning from distributed theories of intelligence*. Twenty-First Annual Meeting of the International Group for the Psychology of Mathematics Education, Lahti, Finland.

Cobb, P. (1997, July). *An analysis of the teacher's role in guiding the evolution of sociomathematical norms* (with K. McClain). Twenty-First Annual Meeting of the International Group for the Psychology of Mathematics Education, Lahti, Finland.

Cobb, P.* (1998, February). *Classroom discussions as productive settings for mathematical learning*. New South Wales Department of Education, Sydney, Australia.

Cobb, P. (1998, June). *From representations to symbolizing: Individual and communal development in the mathematics classroom*. Paper presented at the Fourth Congress of the International Society for Cultural Research and Activity Theory, Aarhus, Denmark.

Cobb, P.* (1998, June). *Modeling, symbolizing, and tool use in statistical data analysis*. Paper presented at the International Conference on Symbolizing and Modeling in Mathematics Education, Utrecht, Netherlands.

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Cobb, P.* (2000, May). *Analyzing the emergence of mathematical meaning: Participating in classroom practices*. Royal Danish School of Educational Studies, Copenhagen, Denmark.

Cobb, P.* (2000, May). *Design research: The case of statistical data analysis*. Royal Danish School of Educational Studies, Copenhagen, Denmark.

Cobb, P.* (2000, June). *Design experiments in mathematics and science education: Methodological challenges and issues* (with R. Marx). Fourth International Conference of the Learning Sciences, Ann Arbor, MI.

Cobb, P. (2000, July). *Supporting the mathematical learning of classroom communities*. Third International Conference on Sociocultural Research, Sao Paulo, Brazil.

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Cobb, P.* (2000, October). *Individual and social perspectives on mathematical learning*. Symposium in honor of Rina Heschkowitz, Wiesmann Instititute, Rehovot, Israel.

Cobb, P.* (2001, May). *Design research in the classroom*. Universidad de los Andes, Bogota, Columbia.

Cobb, P.* (2001, May). *Designing classroom learning environments that support mathematical learning*. Universidad de los Andes, Bogota, Columbia.

Cobb, P.* (2001, June). *A relational perspective on issues of cultural diversity and equity as they play out in the mathematics classroom* (with L. Hodge). Symposium on interaction in multicultural mathematics classrooms, Doorn, The Netherlands.

Cobb, P.* (2001, July). *Placing students' thinking at the center of mathematics teaching*. Symposium on Crossing the Numeracy Boundary, Sydney, Australia.

Cobb, P. (2001, September). *Situating learning in the social context of the classroom*. Ninth Conference of the European Association for Research on Learning and Instruction, Fribourg, Switzerland.

Cobb, P. (2002, March). *Using Computer Based Modules to Prepare Pre-service Teachers for Future Learning in the School Classroom* (with L. Tyler & C. Dean). Paper presented at the 13th International Conference of the Society for Information Technology and Teacher Education, Nashville, TN.

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Cobb, P.* (2003, August). *Cultivating students' mathematical interests*. Annual meeting of the Korean Society for Educational Studies in Mathematics, Seoul, South Korea.

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Cobb, P. (2003, August). *Cultivating students' mathematical interests: The case of statistical data analysis* (with L. Hodge). Tenth Conference of the European Association for Research on Learning and Instruction, Padua, Italy.

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Cobb, P.* (2004. June). *Content matters: Toward a symbiotic relationship between general and domain-specific theories in educational research*. Annual Meeting of the Dutch Educational Research Association, Utrecht, The Netherlands.

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Cobb, P.* (2005, December). *Psychological constructivism, sociocultural theory, and social constructivism in mathematics education*. Paper presented at the workshop on theories of mathematical learning, Danish Pedagogical University, Copenhagen, Denmark.

Cobb, P.* (2006, February). *Supporting productive whole class discussions*. Paper presented at the conference on Quality Teaching of Mathematics, Auckland, New Zealand.

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Cobb, P. (2006, November*). Professional-development design: Building on current instructional practices to achieve a professional-development agenda* (with J. Visnovska & Q. Zhao). Paper presented at the twenty-eighth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Merida, Mexico.

Cobb, P. (2006, November). *Articulating the relation between teachers' learning in professional development and their practice in the classroom: Implications for design research* (with Q. Zhao). Paper presented at the twenty-eighth annual meeting of the North American Chapter of the International Group for the

Psychology of Mathematics Education, Merida, Mexico.

Cobb, P. (2006, November). *Using student work to support teachers' Learning in professional development: The potentials and pitfalls* (with Q. Zhao). Paper presented at the Asia-Pacific Education Research Association Conference, Hong Kong, China.

Cobb, P.* (2007, February). *A design research perspective on the identities that students are developing in mathematics classrooms*. Paper presented at the Conference on the Guided Construction of Knowledge, Jerusalem, Israel.

Cobb, P.* (2008, July). *Does research in mathematics education address the concerns of teachers and policy makers?* Paper presented at the 11th International Congress on Mathematics Education, Monterrey, Mexico.

Cobb, P.* (2008, July). *District development as a means of improving mathematics learning and teaching at scale*. Paper presented at the 11th International Congress on Mathematics Education, Monterrey, Mexico.

Cobb, P.* (2008, October). *Supporting instructional improvement in mathematics at scale.* Paper presented at the Institute of Education, University of London, United Kingdom.

Cobb, P.* (2008, October). *Supporting students' development of multiplicative reasoning in the middle grades*. Paper presented at the Middle Years Conference, Sydney, Australia.

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Cobb, P.* (2008, November). *The challenges of scale: Designing learning organizations for instructional improvement in mathematics*. Paper presented as a Dean's Lecture, University of Melbourne, Melbourne, Australia.

Cobb, P.* (2009, February). *Issues in the sustainability of system-wide change*. Paper presented at the National Numeracy Conference: Thinking Mathematically and Statistically, Auckland, New Zealand.

Cobb, P. (2009, February). *Linear measurement as a basis for mental computation with numbers up to 100.* Paper presented at the National Numeracy Conference: Thinking Mathematically and Statistically, Auckland, New Zealand.

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Cobb, P.* (2009, February). *Supporting sustainable system-wide improvement in instruction.* Paper presented at the Ministry of Education, Wellington, New Zealand.

Cobb, P.* (2009, February). *Designing Schools to Support Teachers' Ongoing Learning*. Paper presented at Victoria University, Wellington, New Zealand.

Cobb, P.* (2009, March). *Designing Schools to Support Teachers' Ongoing Learning*. Paper presented at the University of Canterbury, Christchurch, New Zealand.

Cobb, P.* (2009, March). *Supporting students' development of multiplicative reasoning in the middle grades*. Paper presented at the University of Canterbury, Christchurch, New Zealand.

Cobb, P* (2009, March). *Designing schools to support teachers' ongoing learning*. Paper presented at the annual meeting of the National Centre for Excellence in the Teaching of Mathematics, Bristol, United Kingdom.

Cobb, P* (2009, March). *Supporting students' development of multiplicative reasoning in the middle grades*. Paper presented at the annual meeting of the National Centre for Excellence in the Teaching of Mathematics, Bristol, United Kingdom.

Cobb, P.* (2009, June). *Designing schools to support teachers' ongoing learning*. Paper presented at the Symposium on Instructional Improvement in Mathematics, Adger University, Kristiansand, Norway.

Cobb, P.* (2009, November). *Designing schools to support teachers' ongoing learning*. Paper presented as a John Dewey Lecture, University of Rennes, France.

Cobb, P.* (2009, November). *Reconceptualizing policies as designs for supporting learning* (with K. Jackson). Paper presented as a John Dewey Lecture, University of Rennes, France.

Cobb, P.* (2009, November). *Supporting all students' substantial participation in academically rigorous mathematics classrooms* (with K. Jackson). Paper presented as a John Dewey Lecture, University of Rennes, France.

Cobb, P.* (2009, November). *Negotiating a vision of high-quality mathematics teaching in the context of professional development* (with M.Gresalfi). Paper presented as a John Dewey Lecture, University of Rennes, France.

Cobb, P.* (2010, February). *Reconceptualizing policies as designs for supporting learning* (with K. Jackson). Paper presented at the Symposium on Supporting Instructional Improvement, Haifa, Israel.

Cobb, P.* (2010, April). *Job-embedded supports for instructional improvement in mathematics*. British Congress of Mathematics Education, Manchester, England.

Cobb, P* (2011, March). *Towards an empirically grounded theory of action for improving the quality of mathematics teaching at scale* (with K. Jackson). Paper presented at the Cambridge Symposium on Pedagogy and Teacher Education: Formulating a Research Agenda for the Future, Cambridge, England.

Cobb, P. (2013, August). *Supporting instructional improvement on a large scale: The role of coaching, school leadership, and district leadership*. Paper presented and the meeting of the European Association for Research on Learning and Instruction, Munich, Germany.

Cobb, P.* (2013, September). *Building capacity for large-scale instructional improvement: Supporting mathematics teachers' development of ambitious instructional practices*. Paper presented at the Fourth International Realistic Mathematics Education Conference, Boulder, Co.

Cobb, P.* (2014, March). *Towards an empirically-grounded theory of action for improving the quality of mathematics teaching at scale*. Paper presented at the International Seminar on Design-based Research, Lesson Studies, and Didactic Engineering: Commonalities and Differences, French Institute of Education, Lyon, France.

Cobb, P.* (2014, June). *Partnering with schools and districts to support all students' learning* (with K, Jackson and M. Sorum). Paper presented at the International Conference of the Learning Sciences, Boulder, CO.

Cobb, P. * (2014, June). *Supporting instructional improvement in mathematics at scale: Mechanisms and processes.* Paper presented at the annual conference of the National Association of Mathematics Education [China], Lanzhou, China.

Cobb, P. * (2014, July). *What does it take to support instructional improvement in mathematics at scale?* Paper presented at Beijing Normal University, Beijing, China.

Cobb, P.* (2014, August). *Professional learning as the situated reorganization of practice*. Paper presented at the Symposium on the Definition of Learning, Odense, Denmark.

Cobb, P.* (2015, February). *Building system-level capacity for instructional improvement: Supporting mathematics teachers' development of ambitious instructional practices*. Paper presented at the Mathematics Futures for All Program, Australian Catholic University, Melbourne, Australia.

Cobb, P.* (2015, June). *Assessing and investigating professional teacher knowledge and practice*. Paper presented at the Symposium on the Definition of Learning, Nyborg, Denmark.

Cobb, P.* (2015, July). *Investigating the data-Informed development of instructional practice*. Paper presented at the Laboratory for Research-Based School Development and Educational Practice, Aalborg, Denmark.

Cobb, P.* (2015, July). *An empirically grounded theory of action for supporting improvements in the quality of mathematics teaching on a large scale*. Paper presented at the Ministry of Education, Copenhagen, Denmark.

Cobb, P.* (2015, July). *Design-based research at the system level*. Paper presented at Institute for Future Studies, Stockholm, Sweden.

Cobb, P.* (2015, July). *Supporting Improvements in the quality of mathematics teaching on a large scale*, Paper presented at the International Symposium on How Change Happens, Institute for Advanced Study, Delmenhorst, Germany.

Cobb, P.* (2015, July). *Researcher-practitioner partnerships as a means of producing relevant research*. Paper presented at the International Symposium on How Change Happens, Institute for Advanced Study, Delmenhorst, Germany.

Cobb, P.* (2015, December). *Supporting improvements in the quality of mathematics teaching on a large scale*. Sixth International Conference on Science, Technology and Mathematics Education, Mumbai, India.

Cobb, P.* (2015, December). *Design research methodology: Orientation and issues*. Sixth International Conference on Science, Technology and Mathematics Education, Mumbai, India.

Cobb, P. (2016, July). *Analyzing middle grades matheamtics instruction in the U.S. and China: A cross-national Comparison of instructional quality* (with E. Kern, E. Henrick, T. Smith, and Y. Cao). Paper presented at the 13th International Congress on Mathematics Education, Hamburg, Germany.

Cobb, P. (2016, July). *District and school supports for ambitious mathematics instruction: A descriptive comparison* (with E. Kern, E. Henrick, T. Smith, and Y. Cao). Paper presented at the 13th International Congress on Mathematics Education, Hamburg, Germany.

Cobb, P. (2016, July). *Investigating and supporting instructional improvement at scale* (with K. Jackson, E. Henrick, and T. Smith). Paper presented at the 13th International Congress on Mathematics Education, Hamburg, Germany.

Cobb, P. (2016, July). *Design research at the system level*. Paper presented at the 13th International Congress on Mathematics Education, Hamburg, Germany.

Cobb, P. * (2016, September). *Supporting improvements in the quality of mathemaitcs teaching on a large scale.* Paper presented at the Symposium on Research and Policymaking in Education, Stockholm, Sweden.

Cobb, P. (2016, September). *Practical measures of the quality of small group and whole class discussions in mathematics classrooms* (with K. Jackson, E. Henrick, N. Kochmanski, and H. Nieman). Paper presented at the meeting of Researcher Practitioner Partnerships on Practical Measures and Routines to Improve Instruction, San Francisco, CA.

Cobb, P. (2016, March). *Developing practical measures of the quality of the mathematics classroom learning environment* (with N. Kochmanski & H. Nieman). Paper presented at the Carnegie Summit on Improvement in Education, San Francisco, CA.

Cobb, P. (2016, July). *Design research at the system level*. Paper presented at the Thirteenth International Congress on Mathemarics Education, Hamburg, Germany.

Cobb, P.* (2016, December). *Middle school mathematics and the institutional context of teaching*. Paper presented at the Symposium on Implementing College and Career Readiness Standards, Washington, DC.

Cobb, P.* (2017, September). *Supporting improvements in the quality of mathematics teaching on a large scale*. Paper presented at the Symposium Research and Policymaking in Education, Stockholm, Sweden.

National ("*" denotes invited plenary address)

Cobb, P. (1981, September). *A methodology for constructing child-centered curricula*. Airlie Conference on Curriculum Theorizing, Airlie, VA.

Cobb, P. (1982, March). *Children's thinking strategies in addition and subtraction*. Annual meeting of the American Educational Research Association, New York.

Cobb, P. (1982, October). *Stages in the construction of the counting scheme* (with L. P. Steffe). Fourth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Athens, GA.

Cobb, P. (1983, April). *Children's construction of thinking strategies to find sums and differences*. Annual meeting of the American Educational Research Association.

Cobb, P. (1983, October). *Psychology is not enough for "psychological problems": A view from below*. Paper presented at the Bergamo Conference on Curriculum Theorizing, Dayton, Ohio.

Cobb, P. (1983, October). *Early multiplication and division* (with L. P. Steffe). Fifth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Montreal, Canada.

Cobb, P. (1984, April). *Children's concepts of addition and subtraction: From number to part-whole*. Annual meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P. (1984, October). *An analysis of autonomy and dependency in mathematical problem solving*. Annual Meeting of the American Society for Cybernetics, Philadelphia, PA.

Cobb, P. (1984, October). *Anticipations, beliefs, and motivations at second grade.* Sixth Annual Meeting of the North American Chapter of the Inter-national Group for the Psychology of Mathematics Education, Madison, WI.

Cobb, P. (1985, April). *An investigation of kindergarten and first graders' structuration of spatial and temporal patterns*. Annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (1985, April). *Mathematical belief systems*. Annual meeting of the National Council of Teachers of Mathematics, Research Pre-Session, San Antonio, TX.

Cobb, P. (1986, April). *The basic facts: Conceptual development and beliefs*. Annual meeting of the National Council of Teachers of Mathematics, Washington, DC.

Cobb, P. (1986, April). *How do children learn the basic addition facts?* Annual meeting of the Research Council for Diagnostic and Prescriptive Mathematics, Washington, DC.

Cobb, P. (1986, April). *Counting types and word problems*. Annual meeting of the American Educational Research Association, San Francisco, CA.

Cobb, P. (1986, September). *The constructivist clinical interview*. Eighth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, East Lansing, MI.

Cobb, P. (1987, February). *Knowledge construction and mathematics education*. Annual meeting of the American Association for the Advancement of Science, Chicago.

Cobb, P. (1987, April). *Affects and belief systems*. Annual meeting of the National Council of Teachers of Mathematics, research pre-session, Anaheim, CA.

Cobb, P. (1987, April). *Children's initial understandings of ten*. Annual meeting of the American Educational Research Association, Washington, DC.

Cobb, P. (1987, April). *Constructivism, teacher education, and mathematics*. Annual meeting of the Research Council for Diagnostic and Prescriptive Mathematics, Los Angeles.

Cobb, P. (1987, December). *The effects of change in teacher behavior in mathematics on reading instruction* (with T. Wood). National Reading Conference, St. Petersburg, FL.

Cobb, P. (1988, January). *Elementary school mathematics as the mutual construction of social and mathematical realities.* Gordon Research Conference on Cybernetics, Santa Barbara, CA.

Cobb, P. (1988, April). *Learning and teaching mathematics in social context: Putting the pieces together*. Annual meeting of the National Council of Teachers of Mathematics, Research Pre-Session, Chicago.

Cobb, P. (1988, April). *Multiple perspectives*. Annual meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P. (1988, April). *The development of primary level mathematics curricula: From research to practice* (with T. Wood & E. Yackel). Annual meeting of the National Council of Teachers of Mathematics, Chicago.

Cobb, P. (1988, April). *The influence of change in teacher's beliefs in mathematics on reading instruction* (with T. Wood). Annual meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P. (1988, May). *Curriculum and teacher development as the coordination of psychological and anthropological perspectives* (with E. Yackel & T. Wood). Paper presented at the meeting of the Instruction/Learning Working Group of the National Center for Research in Mathematical Sciences Education, Madison, WI.

Cobb, P. (1988, June*). Clinical interviewing and classroom teaching experiments* (with T. Wood). Conference on Constructivist Teaching, Mount Holyoke College, MA.

Cobb, P. (1989, April). *Primary classrooms where children engage in meaningful mathematical activity* (with T. Wood & E. Yackel). Annual meeting of the American Educational Research Association, San Francisco, CA.

Cobb, P. (1989, April). *Change in teaching mathematics: A case study* (with T. Wood & E. Yackel). Annual meeting of the American Educational Research Association, San Francisco, CA.

Cobb, P. (1989, April). *Ethics and cognitive modeling*. Annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Cobb, P., (1989, April). *The use of video to translate research knowledge on children's learning and thinking into classroom practice* (with T. Wood & E. Yackel). Annual meeting of the National Council of Teachers of Mathematics, Research Pre-Session, Orlando, FL.

Cobb, P. (1989, June). *A problem centered approach to elementary mathematics education*. Paper presented at the Conference on Improving Instruction and Assessment in Elementary Mathematics Education organized by the National Research Council, Washington, DC.

Cobb, P. (1989, September). *Sex differences in mathematical ability* (with J.G. Nicholls). Annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, New Brunswick, NJ.

Cobb, P. (1989, October). *Integrating research on teaching and research on learning: The importance of interactional analyses*. Conferences on the Studying of Teaching in Well-Defined Content Domains, East Lansing, MI.

Cobb, P.* (1990, February). *Making sense of life in mathematics classrooms*. John Wilson Memorial Address, Annual meeting of the Research Council for Diagnostic and Prescriptive Mathematics, Washington, DC.

Cobb, P. (1990, April). *Effectiveness of a problem-centered instructional approach*. Annual meeting of the American Educational Research Association, Boston, MA.

Cobb, P. (1990. April*). Children's arithmetical learning in the social context of classroom life.* Annual meeting of the American Educational Research Association, Boston, MA.

Cobb, P. (1990, April). *The relationship of individual children's conceptual development to small group interactions in second grade mathematics* (with E.Yackel & T. Wood). Annual meeting of the American Educational Research Association, Boston, MA.

Cobb, P. (1990, April). *The role of teacher interventions in small group problem solving* (with T. Wood, E. Yackel). Annual meeting of the American Educational Research Association, Boston, MA.

Cobb, P. (1990, November). *Mathematics as procedural instructions and mathematics as meaningful activity* (with T. Wood, E. Yackel, & B. McNeal). The Rutgers Invitational Symposium on Education, New Brunswick, NJ.

Cobb, P. (1991, April). *Characteristics of classroom mathematics traditions: An interactional analysis*. Annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (1991, April) . *A realistic, interactive, problem-centered approach to arithmetic computation*. Annual meeting of the National Council of Teachers of Mathematics, New Orleans, LA.

Cobb, P. (1991, April). *Reflections on the practice of developing instructional activities*. Annual meeting of the National Council of Teachers of Mathematics, Research Presession, New Orleans, LA.

Cobb, P. (1991, April). *The complimentarily of socio-cultural and cognitive analyses of mathematical activity*. Annual meeting of the National Teachers of Mathematics, Research Presession, New Orleans, LA.

Cobb, P. (1992, February). *Reflections on learning and teaching mathematics in elementary school* (with T. Wood & E. Yackel). Conference on Alternative Epistemologies in Education. University of Georgia, Athens, GA.

Cobb, P. (1992, February). *Children's learning and reform in mathematics education*. Conference on Research and Reform in Mathematics Education. University of California at Los Angeles, Los Angeles, CA.

Cobb, P. (1992, November). *A comparison of constructivism and activity theory as they relate to mathematics education*. Michigan State University School of Education Seminar. Lansing, MI.

Cobb, P. (1993, January). *Teaching fractions to children*. Conference on Rational Numbers in Arithmetic. Athens, GA.

Cobb, P. (1993, April). *Telling in teaching? Thoughts on teacher telling in constructivist-influenced teaching* (with M. Perlwitz & E. Yackel). Annual meeting of the National Council of Teachers of Mathematics, Research Presession, Seattle, WA.

Cobb, P. (1993, April). *Cultural tools and mathematical learning: A case study.* Annual meeting of the American Educational Research Association, Atlanta.

Cobb, P. (1993, April). *The influences of Vygotsky's school on American research: A response to V. V. Davydov*. Annual meeting of the American Educational Research Association, Atlanta.

Cobb, P. (1993, April). *Problem-centered student reflection in second grade mathematics learning* (with J. Uerkwitz). Annual meeting of the American Educational Research Association, Atlanta.

Cobb, P. (1993, April). *Sociomath norms, argumentation, and autonomy in mathematics* (with E. Yackel). Annual meeting of the American Educational Research Association, Atlanta.

Cobb, P. (1993, April). *Cognitive and social aspects of inquiry mathematics.* Annual meeting of the National Association for Research in Science Teaching, Atlanta.

Cobb, P. (1994, April). *Recent convergences in theory development*. Symposium on Constructivism in Mathematics and Science Education, Atlanta.

Cobb, P. (1994, April). *Where is the mind? Constructivist and sociocultural accounts of mathematical activity*. Annual meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P. (1994, April). *A methodology for analyzing longitudinal sets of classroom videorecordings* (with J. Whitenack). Annual meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P. (1994, April). *The development of young children's understanding of mathematical argumentation* (with E. Yackel). Annual meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P. (1994, November). *Reflective discourse and collective reflection* (with A. Boufi, K. McClain, & J. Whitenack). Symposium on Communication for Understanding in Classrooms, National Center for Research in Mathematical Sciences Education, Madison, WI.

Cobb, P. (1995, April). *A constructivist perspective on the culture of the mathematics classroom* (with E. Yackel). Annual meeting of the American Educational Research Association, San Francisco, CA.

Cobb, P. (1995, April). *Mathematizing and modelling: Developing conceptual power in arithmetic*. Annual meeting of the National Council of Teachers of Mathematics, Boston, MA.

Cobb, P. (1995, April). *Theoretical and pedagogical considerations in developing integrated media instructional activities* (with J. Bowers). Annual meeting of the American Educational Research Association, San Francisco, CA.

Cobb, P.* (1995, October). *Constructivist, emergent, and sociocultural perspectives in the context of developmental research* (with E. Yackel). Annual

meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Columbus, Ohio.

Cobb, P. (1996, April). *Constructivist, emergent, and sociocultural perspectives in context of developmental research* (with E. Yackel). Paper presented at the annual meeting of the American Educational Research Association, New York

Cobb, P. (1996, April). *Students' conceptions of controversial knowledge* (with R. Nelson). Paper presented at the annual meeting of the American Educational Research Association, New York City.

Cobb, P. (1996, April). *Conducting classroom teaching experiments in collaboration with teachers*. Paper presented at the annual meeting of the American Educational Research Association, New York City.

Cobb, P.* (1996, June). *Piaget's legacy in social context*. Paper presented at the Twenty-Sixth Symposium of the Jean Piaget Society (Centennial of Jean Piaget's Birth), Philadelphia.

Cobb, P. (1996, October). *A contextual investigation of numerical reasoning and computational algorithms* (with K. McClain & J. Bowers). Annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Panama City, FL.

Cobb, P. (1997, April). *Mathematizing and symbolizing: The emergence of chains of signification in one first-grade classroom*. Annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (1997, April). *Tools, symbols, and learning mathematics*. Annual meeting of the National Council of Teachers of Mathematics, Minneapolis.

Cobb, P. (1997, April). *Inquiry mathematics in the primary classroom* (with K. McClain). Annual meeting of the National Council of Teachers of Mathematics, Minneapolis.

Cobb, P. (1997, June). *Culture and the development of mathematical thinking*. Annual meeting of the Jean Piaget Society, Los Angeles.

Cobb, P. (1998, April). *A social constructivist perspective on the role of tools and artifacts in mathematical learning*. Annual meeting of the American Educational Research Association, San Diego.

Cobb, P (1998, April). *A framework for analyzing a classroom teaching experiment*. Annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (1998, April). *Cognitive and situated perspectives in theory and practice*. Annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (1998, April). *An Analysis of students' statistical understandings* (with M. McGatha & K. McClain). Annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (1998, April) *An analysis of the teacher's proactive role in symbolizing and notating students' explanations and solutions* (with K. McClain). Annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (1999, April). *From representations to symbolizing: Individual and communal development in the mathematics classroom*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Cobb, P. (1999, April). *Islands of truth and wisdom: How many epistemologies should there be?* Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Cobb, P. (1999, April). *Participating in classroom mathematical practices* (with M. Stephan). Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Cobb, P. (1999, April). *The emergence of big statistical ideas in the classroom*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Cobb, P. (1999, April). *The interplay between symbol creation and meaning making: One first-grade class learns to measure* (with M. Stephan, K. McClain, & K. Gravemeijer). Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Cobb, P.* (1999, June). *Design experiments: An emerging methodology* (with M. Linn). Meeting of NSF Principal Investigators (Research, Evaluation, Policy, and Practice Program), Washington, DC.

Cobb, P. * (1999, June). *Pushing the envelope: New realms for cognition and instruction*. Pittsburgh: 30th Carnegie Symposium on Cognition.

Cobb, P. (2000, April). *Innovative instructional approaches for supporting students' development of multiplicative reasoning*. (with K. McClain). Presentation at the annual meeting of the Research Pre-session of the National Council of Teachers of Mathematics, Chicago, Illinois.

Cobb, P. (2000, April). *Supporting students' learning of significant mathematical ideas.* Paper presented at the annual meeting of the American Education Research Association, New Orleans.

Cobb, P. (2000, April). *Design experiments and the generation of reliable and relevant knowledge for policymakers?* Paper presented at the annual meeting of the American Education Research Association, New Orleans.

Cobb, P. (2000, April). *Learning about data analysis* (with C. Tzou). Paper presented at the annual meeting of the American Education Research Association, New Orleans.

Cobb, P. (2000, April). *Supporting middle-school students' ability to reason multiplicatively about data* (with K. McClain). Paper presented at the annual meeting of the American Education Research Association, New Orleans.

Cobb, P. (2000, April). *Supporting middle school students' ability to develop data-based arguments*. Paper presented at the annual meeting of the American Education Research Association, New Orleans.

Cobb, P.* (2000, September). *A relational perspective on issues of diversity and equity as they play out in the mathematics classroom* (with L. Hodge). Paper presented at the Symposium on Issues of Cultural Diversity and Equity in Mathematics Education, Northwestern University, Evanston, IL.

Cobb, P. (2001, April). *Understanding means and ratios as measures* (with J. L. Cortina & K. McClain). Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Cobb, P. (2001, April). *Supporting students' ways of reasoning statistically about data* (with K. McClain). Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Cobb, P. (2001, April). *Designing classroom learning environments that support mathematical learning* (with K. Gravemeijer). Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Cobb, P. (2001, April). *Students' emerging identities as doers of mathematics: Investigating issues of diversity and equity as aspects of identity formation* (with L. Hodge). Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Cobb, P. (2001, April). *Professional teaching communities: A framework for analysis* (with K. McClain). Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Cobb, P. (2002, April). *Situating mathematical learning in the social context of classroom mathematical practices*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Cobb, P (2002, April). *A relational perspective on diversity and equity* (with L. Hodge). Paper presented at the Research Pre-session of the Annual Meeting of the National Council of Teachers of Mathematics, Las Vegas.

Cobb, P. (2002, May).* *Mini-Symposium for the Oversight Board of the Education and Human Resources Division of the National Science Foundation* (with J. Anderson, J. Bransford, J. Confrey, L. Schauble). Washington, DC: National Science Foundation.

Cobb, P. (October, 2002).* *Supporting students' development of mathematical power*. Paper presented at the Annual Meeting of the National Council of the Alberta teachers' Association (NCTM Regional Conference). Canmore, Canada.

Cobb, P. (October, 2002).* *Placing students' reasoning at the center of mathematics teaching*. Paper presented at the Annual Meeting of the National Council of the Alberta teachers' Association (NCTM Regional Conference). Canmore, Canada.

Cobb, P. (2003, February). *Accounting for variability in reasoning about distributions* (with K. McClain). Paper presented at the PCMI Statistics Conference, Nashville, TN.

Cobb, P. (2003, April). *The role of institutional context in enabling and constraining professional teaching communities as sites for teacher change in mathematics*. Paper presented at the research presession of the National Council of Teachers of Mathematics, San Antonio.

Cobb, P. (2003, April). *Design experiments using group comparisons to focus on issues of distribution and aggregate* (with J. Cortina). Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (2003, April). *Two views of culture and their implications for investigating equity in mathematics education* (with L. Hodge). Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (2003, April). *Students' construction of identities as doers of mathematics in the context of statistical data analysis* (with L. Hodge). Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (2003, April). *Classrooms as design spaces for supporting students' identities as doers of mathematics* (with L. Hodge & K. McClain). Paper

presented at the annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (2003, April). *Supporting teachers' learning in the institutional context of the professional teaching community* (with C. Dean & K. McClain). Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (2003, April). *Situating teachers' instructional practices in the institutional setting of the school and school district* (with K. McClain). Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (2003, April). *The institutionally situated learning of a professional teaching community: The case of Jackson Heights* (with T. Lamberg, C. Dean, & Q. Zhao). Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (2003, April). *Exploring the Dynamic Tensions between Classroom and Institutional Change: Implications for Professional Development in Mathematics and Science*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Cobb, P. (2003, July). *Design research: Orientation and issues*. Paper presented at the annual meeting of the Office of Special Education Projects Research Project Directors' Conference, Washington, DC.

Cobb, P.* (2003, September). *Is design research a methodology?* NSF Conference on Design Research, San Diego, CA.

Cobb, P. (2004, April). *Cultivating students' mathematical interests: The case of statistical data analysis* (with L. L. Hodge). Paper presented at the annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (2004, April). *Ontological innovation and the role of theory in design experiments* (with A. A. diSessa). Paper presented at the annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (2004, April). *Tools for supporting the orchestration of mathematical conversations: The case of proportional reasoning* (with J. L. Cortina, Q. Zhao, & K. McClain). Paper presented at the annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (2004, April). *Students' developing identities in mathematics classrooms* (with L. L. Hodge). Paper presented at the annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (2004, April). *Exploring the construct of collective abstraction*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.

Cobb, P. (2004, October). *Exploring an elusive link between knowledge and practice: Students, relationships with mathematics* (with M. Gresalfi and J. Boaler). Paper presented at the annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Toronto, Canada.

Cobb, P.* (2005, January). *Collective abstraction and transfer*. Paper presented at the NSF Conference on Abstraction and Transfer, San Diego, CA.

Cobb, P. (2005, April). *Collective abstraction as a shift in the social situation of learning*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Cobb, P. (2005, April). *The collective mediation of a high stakes accountability program in mathematics: Communities and networks of practice*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Cobb, P. (2005, April). *Modeling, symbolizing, and tool use in statistical data analysis*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Cobb, P.* (2005, September). *Social and psychological perspectives*. Paper presented at the conference on Evolving Perspectives on Mathematics Thinking, Learning, and Teaching, East Lansing, MI.

Cobb, P.* (2005, October). *Cultivating students' mathematical dispositions: The case of statistical data analysis*. Paper presented at the conference on Improving Mathematics Teaching, Hammond, IN.

Cobb, P.* (2005, October). *Comparing sociocultural and cognitive perspectives*. Paper presented at the annual meeting of the National Academy of Education, New York City.

Cobb, P. (2006, April). *Experimenting to support teachers' learning* (with C. Dean & Q. Zhao). Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Cobb, P. (2006, April). *An interpretive scheme for analyzing the identities that students develop in mathematics classrooms* (with L. L. Hodge & M. Gresalfi). Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Cobb, P (2006, April). *Experimenting to support and understand learning processes* (with K. Gravemeijer). Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Cobb, P. (2006, April). *Design research from the learning design perspective* (with K. Gravemeijer). Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Cobb, P. (2006, April). *Teacher quality as the cultivation of productive mathematical dispositions* (with M. Gresalfi). Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Cobb, P.* (2006, April). *Placing students' reasoning at the center of mathematics teaching*. Paper presented at the 2006 Math Recovery National Conference, Denver, CO.

Cobb, P.* (2006, April). *Supporting students' learning of significant mathematical ideas*. Paper presented at the NSF Symposium on Cognitive Neuroscience and Mathematics Education (with M. Gresalfi), Fairfax, VA.

Cobb, P.* (2007, March). *Placing students' learning at the center of mathematics teaching.* Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Atlanta.

Cobb, P. (2007, April). *Cultivating students' mathematical Interests: The case of statistical data analysis* (with L. L. Hodge, J. Visnovska, & Q. Zhao). Paper presented at the annual conference of the American Educational Research Association, Chicago.

Cobb, P. (2007, April). *Appropriating policy* (with C. Drake). Paper presented at the annual conference of the American Educational Research Association, Chicago.

Cobb, P.* (2007, May). *Mathematical reasoning, the brain, and sociocultural context*. Paper presented at the National Science Foundation Workshop on Neuroscience and Mathematics, Arlington, VA.

Cobb, P.* (2007, October). *The challenge of scale: Designing schools and districts as learning organizations for instructional improvement in mathematics* (with T. Smith). Paper presented at the 29th Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Lake Tahoe, NV.

Cobb, P. (2008, April). *Designing learning organizations for instructional improvement in mathematics* (with T. Smith). Paper presented at the annual conference of the American Educational Research Association, New York.

Cobb, P. (2008, April). *A framework for analyzing teacher learning in social context* (with C. Dean). Paper presented at the annual conference of the American Educational Research Association, New York.

Cobb, P. (2009, April). *The consequences of experimentalism for policy and practice* (with K. Jackson). Paper presented at the annual conference of the American Educational Research Association, San Diego, CA.

Cobb, P. (2009, April). *Classroom statistical activity: Shifts in middle school teachers' pedagogical reasoning in statistics* (with J. Visnovska & Q. Zhao). Paper presented at the annual conference of the American Educational Research Association, San Diego, CA.

Cobb, P. (2009, April). *The consequences of experimentalism for policy and practice* (with K. Jackson). Paper presented at the research pre-session of the national meeting of the National Council of Teachers of Mathematics, Washington, DC.

Cobb, P. (2009, April). *Designing schools and districts to support teachers' ongoing learning*. Paper presented at the research pre-session of the national meeting of the National Council of Teachers of Mathematics, Washington, DC.

Cobb, P. (2009, April). *High quality instruction for whom?* (with K. Jackson) Paper presented at the research pre-session of the national meeting of the National Council of Teachers of Mathematics, Washington, DC.

Cobb, P. (2010, March). *Evaluating Math Recovery: Assessing the causal impact of Math Recovery on student achievement* (with T. Smith, D. Farran, D. Cordray, C. Munter, & A. Dunn). Paper presented at the annual meeting of the Society for Research on Educational Effectiveness, Washington, DC.

Cobb, P. (2010, March). *Evaluating Math Recovery: Assessing fidelity of implementation* (with C. Munter, A. Garrison, and D. Cordray). Paper presented at the annual meeting of the Society for Research on Educational Effectiveness, Washington, DC.

Cobb, P. (2010, March). *Where is the theory? The importance of attending to the developer's theory of action in evaluation studies* (with T. Smith, C. Munter, & S. Green). Paper presented at the annual meeting of the Society for Research on Educational Effectiveness, Washington, DC.

Cobb, P. (2010, April). *Two views of culture and their implications for mathematics teaching and learning* (with L. Hodge). Paper presented at the Annual Meeting of the American Educational Research Association, Denver, CO.

Cobb, P. (2010, April). *Two views of culture and their implications for mathematics teaching and learning* (with L. Hodge). Paper presented at the

Research Presession of the Annual Meeting of the National Council of Teachers of Mathematics, San Diego, CA.

Cobb, P. (2010). *Teacher networks and the role of the mathematics coach: how institutional factors influence coach centrality* (with L. K. Gibbons, & A. L. Garrison). Paper presented at the annual conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Columbus, OH.

Cobb, P.* (2011, April). *Towards an empirically-grounded theory of action for improving the quality of mathematics teaching at scale* (with K. Jackson). National Council of Teachers of Mathematics Research Presession, Indianapolis.

Cobb, P.* (2011, April). *Reconceptualizing policies as designs for supporting learning*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P.* (2011, April). *Taking research to scale*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P.* (2011, April). *Conducting design research at the district level* (with E. Henrick & C. Munter). Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Cobb, P.* (2012, February). *Research in mathematics education: Supporting improvements in the quality of mathematics teaching on a large scale.* Paper presented at a meeting of the National Science Board Committee on Education and Human Resources, Washington, DC.

Cobb, P. (2012, April). *The role of program theory in mathematics education evaluation research* (with C. Munter). National Council of Teachers of Mathematics Research Presession, Philadelphia.

Cobb, P.* (2012, April). *Towards an empirically grounded theory for improving the quality of teaching at large scale* (with K. Jackson). Paper presented at the annual conference of the National Association for Research on Science Teaching, Indianapolis, IN.

Cobb, P.* (2012, May). *School instructional leadership and content-focused coaching* (with M. Sorum, S. Ledford, & T. Smith). Paper presented at William T. Grant Foundation meeting on research-practice partnerships in education, Washington, DC.

Cobb P.* (2013, February). *An agenda for research on supporting improvement in the quality of mathematics teaching on a large scale*. Paper presented at University of California, Berkeley.

Cobb, P (2013, May). *Supporting the development of district capacity* (with T. Smith and M. Sorum). Paper presented at William T. Grant Foundation meeting on research-practice partnerships in education, San Francisco.

Cobb, P. (2013, April). *Observing and supporting large-scale instructional improvement* (with E Henrick). Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Cobb, P. (2013, April). *Investigating and supporting the development of district capacity in the context of ambitious middle-grades mathematics reform* (with K. Jackson). Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Cobb, P. (2013, April). *Investigating and Supporting the Development of Ambitious and Equitable Mathematics Instruction at Scale* (with T. Smith, K. Jackson, E. Henrick, I. Horn, and K. Frank). Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Cobb, P.* (2013, November). *Building the capacity and conditions for successful partnerships* (with K. Jackson). Paper presented at William T. Grant Foundation meeting on research-practice partnerships in education, San Francisco.

Cobb, P.* (2014, February). *An agenda for research on supporting improvement in the quality of mathematics teaching on a large scale*. Paper presented as a Lappan-Phillips-Fitzgerald Lecture, Michigan State University, East Lansing, MI.

Cobb, P. (2014, April). *Principal observation and feedback: Leading toward improvement in ambitious mathematics instruction* (with J. Rigby, A. M. Larbi-Cherif, B. A. Rosenquist, M. J. Munoz, & T. M. Smith). Paper presented at the annual conference of the American Educational Research Association, Philadelphia.

Cobb, P. (2014, April). *A qualitative exploration of principal observation and feedback for middle-school mathematics teachers* (with J. Rigby, A. M. Munoz, & T. M. Smith). Paper presented at the annual conference of the American Educational Research Association, Philadelphia.

Cobb, P.* (2014, April). *Making sense of research for improvement*. Paper presented at William T. Grant Foundation meeting on research-practice partnerships in education, Chicago.

Cobb, P. (2015, April). *Towards a design for supporting professional development leaders' learning* (with K. Jackson, J. Wilson, M. Webster, & C. Dunlap). Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Service

Co-chair, National Science Foundation Learning Progressions Conference (to assess and set direction for the research on learning progressions funded by NSF), July 2011.

Member, Committee of Visitors, National Science Foundation Mathematics and Science Partnership Program, 2011.

Member, Board of Visitors, Learning Research and Development Center, University of Pittsburgh. 2006 – 2013.

Member, W. T. Grant Foundation/Forum for Youth Investment Planning Group, 2014

Member, National Academy of Education/Spencer Foundation Post Doc Selection Committee, 2004 – 2008.

Chair, National Academy of Education/Spencer Foundation Post Doc Selection Committee, 2007 – 2008.

Member Mathematics and Science Working Group of the National Academy of Education/ED in '08 Education Policy Initiative

Elected member, International Committee, International Group for the Psychology of Mathematics Education, 1987-1991.

Member, Research Advisory Committee, National Council of Teachers of Mathematics, 1995-1998.

Chair, Research Advisory Committee, National Council of Teachers of Mathematics, 1996-1998.

Authored 1996 and 1997 Research Advisory Committee articles published in *Journal for Research in Mathematics Education*.

Executive [Associate] Editor, *Cognition and Instruction*, 2008 - 2012.

Member, Editorial Board, *Educational Researcher*, 2009 - present.

Contributing editor, *Journal of Mathematical Behavior*, 1988 – present.

Member, Editorial Board, *Peabody Journal of Education*, 1996 - present.

Member, Editorial Board, *Mathematical Thinking and Learning*, 1998 - present.

Member, Editorial Board, *Pedagogies*, 2006 – present.

Member, Scientific Committee, *Education and Didactics,* 2007 – present.

Member, Editorial Board, *Mathematics Education Research Journal*, 2011 – 2014.

Member, Editorial Board, *Urban Studies*, 2011 – present.

Member, Editorial Board, *Cognition and Instruction*, 1996 - present.

Member, Editorial Board, *American Educational Research Journal*, 2001 – 2005.

Member, Editorial Board, *International Journal of Science and Mathematics Education*, 2002 – 2006.

Member, Editorial Board*, Journal for Research in Mathematics Education* 1989-1992.

Member, Editorial Board, *Journal of the Learning Sciences*, 2004 – 2009.

Member, Editorial Board, *Educational Studies in Mathematics*, 1990-1996.

Member, Editorial Board, *International Journal of Computers for Mathematical Learning*, 1998 - 2011.

Member, Editorial Committee, Vanderbilt University Press, 1998 - 2001.

Consultant, 1998 volume of *Review of Educational Research*.

Advisor, Center for Research in Mathematics Learning, Copenhagen, Denmark, 1999 – present

Member, Scientific Organizing Committee, International Conference on Symbolizing and Modeling in Mathematics Education, Utrecht, Netherlands, June 1998.

Member, Indiana Department of Education Mathematics Advisory Committee. 1987-1989.

Member, Indiana Department of Education Research Advisory Committee, 1990-1992.