

CURRICULUM VITAE

Gaea Leinhardt

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Education:

Ph.D., Educational Research,
University of Pittsburgh, 1972

M.S.T., Graduate School of Education,
University of Chicago, 1968

Montessori Teacher Trainee,
Ancona School
Chicago, 1967

B.A., Russian Civilization,
University of Chicago, 1966

Honors:

Contributing Researchers Award
American Federation of Teachers Educational Research and Dissemination Program,
2000

Award for Best Geographic Educational Article in a Non-geographic Periodical
National Council for Geographic Education, 1994

Journal of Geography Award
National Council for Geographic Education, 1993

Spencer Fellow at the Center for Advanced Study in the Behavioral Sciences, 1990-
91

Palmer O. Johnson Memorial Award
American Educational Research Association, 1989

Scholarship in Urban Education
University of Chicago, 1967-1968

New York State Regents Scholarship, 1962-1966

National Research Council Committees:

Committee on Geographic Information Science Across the K-12 Curriculum, 2000-
2003.

Committee on Developing a Research Agenda on the Education of Limited English
Proficient and Bilingual Students, 1995-1996.

Board on International Comparative Studies in Education, 1988-1992.

Mathematical Sciences Education Board, Consultant on "Levels of Understanding," 1986-1987.

***Research and Academic
Appointments:***

Professor Emerita,
University of Pittsburgh, 2008-

Professor of Education,
University of Pittsburgh, 1987-2008

Senior Scientist, LRDC, 1972-2008

Program Coordinator, Cognitive Studies in Education Program, School of
Education, University of Pittsburgh, 1987-2002

Director of the Dimensions of Instruction and Learning Project, LRDC, 1977-1987

Research Assistant/Associate Professor of Psychology and Education, University of
Pittsburgh, 1976-1987

Adjunct Associate Professor of Policy Research, Carnegie Mellon University, 1978-
1981

Co-Director, Evaluation Project, LRDC, 1972-1977

Research Experience and Grants:

Carnegie Mellon University, Subcontract. "Evaluation of Open Learning Initiative." Principal Investigator: Joel Smith; funded by Hewlett Foundation, 2005-2008. \$1,900,000 (sub \$150,000/\$75,000).

Carnegie Mellon University, Subcontract. "Development and Assessment of Interactive Online Homework for Introductory Chemistry." Principal Investigator: David Yaron; funded by the National Science Foundation, 2002-2008 (sub \$70,000/\$45,000).

Carnegie Mellon University. Co-Principal Investigator with David Yaron, "Using Digital Libraries to Build Educational Communities," funded by National Science, Technology, and Mathematics Education Digital Library, National Science Foundation, 2003-2005, \$450,000 (sub \$145,000).

Carnegie Mellon University, Subcontract. "Four Courses Millions of Users." Principal Investigator: Joel Smith; funded by Hewlett Foundation, 2002-2006, \$1,900,000 (sub \$200,000).

University of Pittsburgh, LRDC. Co-Principal Investigator with Kevin Crowley, "Conceptualizing and Assessing Web-based Informal Science Learning," funded by the National Science Foundation, 2002-2006, \$600,000.

University of Pittsburgh, LRDC. Principal Investigator, "Museum Learning Collaborative," supported by a consortium of funders under the leadership of the Institute of Museum and Library Services, including the National Science Foundation, the National Endowment for the Arts, and the National Endowment for the Humanities, 1997-2003, \$1,000,000.

University of Pittsburgh, LRDC and Carnegie Mellon University. Co-Principal Investigator with Richard Scheines and Joel Smith, "Teaching Causal Reasoning Online," funded by the Andrew W. Mellon Foundation, 2000-2003, \$1,000,000.

University of Pittsburgh, LRDC. Co-Principal Investigator, "Workplace Simulations in the Classroom," funded by the Andrew W. Mellon Foundation, 1996-1999, \$1,000,000.

University of Pittsburgh, LRDC. Principal Investigator of project entitled "Portraits in Restructuring," funded by the Howard Heinz Endowment, the R. K. Mellon Foundation, and the Grable Foundation, directed by William Bickel, 1996-1997.

University of Pittsburgh, LRDC. Principal Investigator of project entitled "Instructional Explanations in History, Mathematics, and Geography," funded by the James S. McDonnell Foundation, 1988-1996, \$90,000.

University of Pittsburgh, LRDC. Principal Investigator of projects entitled "Study of Effective Teachers" and "Teacher and Student Cognitions," funded by the National Institute of Education and the U. S. Office of Educational Research and Improvement, respectively, 1981-1990.

University of Pittsburgh, LRDC. Co-Principal Investigator of project entitled "Reading Instruction in Learning Disabilities Classrooms," funded by the National Institute of Education, 1977-1980.

University of Pittsburgh, LRDC. Co-Principal Investigator of a project entitled "A Compensatory Education Study: Design for a Study of the Effectiveness of Individualized Instruction in the Teaching of Reading and Mathematics," sponsored by the National Institute of Education, 1975-1978.

University of Pittsburgh, LRDC. Research Associate in charge of evaluating degree of implementation of LRDC Follow Through and its impact, 1972-1975.

University of Pittsburgh, LRDC. Graduate and Research Assistant, Primary Education Project. Developed instructional materials, designed and evaluated teacher training package in behavioral techniques for the classroom, conducted classroom research, 1969-1971.

Dartmouth College. Research Assistant, Project on Small Group Structures. Coded and ran computer analyses on small group structure, Summer 1967.

University of Chicago, Center for Social Organization Studies. Research Assistant, Project on Appalachian Migrants. Participant observer, and community-based research in Appalachian migrant community, 1965.

University of Chicago, National Opinion Research Center. Research Assistant, 1964.

Teaching Experience:

University of Pittsburgh, Cognitive Studies, Department of Instruction and Learning. 1988-2008

Carnegie Mellon University, Program Evaluation, School of Urban and Public Affairs. 1975-1980

Harvard University, Counselor and Tutor, Upward Bound Project, 1968-1969.

Cambridge (Massachusetts) Community Center, Director and Head Teacher, Nursery School, 1968-1969.

Chicago and Boston Public Schools, High School, Elementary, and Preschool Teacher, 1966-1969.

Publications:

2010- 2013

Leinhardt, G. (2012) Finnish Patience. *The Educational Researcher*. 41 (7) Sage.

Leinhardt, G. (2012) Writing and Publishing as Conversation. *The Colombian Journal of Psychology*. (Revista Colombiana de Psicología) 21(1), 15-25

Leinhardt, G. (in press) Theorizing Learning Practice. *Éducation et Didactique*,

Davenport, J. Greeno, J., Leinhardt, G., Karabinos, M., Yaron, D. (in preparation) Improving teaching and learning of equilibrium. *Journal of Chemistry Education*.

Leinhardt G. (2012) Traversing Terrains of Teaching Practice: Review of Teaching and Its Predicaments. *The Educational Researcher*. 41 (4) Sage.

Leinhardt, G. Ravi, A. (2013) Changing Historical Conceptions of History. In S. Vosniadou (Ed) REVISED *International Handbook of Research on Conceptual Change*. London: Routledge (Taylor & Francis)

Yaron, D., Karibinos, M. Greeno, J., Leinhardt, G., (April, 2010) The ChemCollective – Virtual Labs for Introductory Chemistry Courses. *Science*, Vol 328 #5978

2009

Leinhardt, G., & Fienberg, J. (2009). Learning in museums. In T. Good (Ed.), *Encyclopedia of 21st Century Education*. Thousand Oaks, CA: Sage Publications.

2008

Evans, K., & Leinhardt, G. (2008). A cognitive framework for the analysis of online chemistry courses. *Journal of Science Education and Technology*, 17(2), 100-120.

Evans, K., Yaron, D., & Leinhardt, G. (2008). Learning stoichiometry: A comparison of text and multimedia formats. *Chemical Education Research and Practice*, 9(3), 208-218. (Online journal available at www.rsc.org/Publishing/Journals/RP/index.asp)

Leinhardt, G. & Ravi, A. (2008). Changing historical conceptions of history. In S. Vosniadou (Ed.), *International handbook of research on conceptual change* (pp. 328-341). London: Routledge (Taylor & Francis).

van de Sande, C., & Leinhardt, G. (2008). The Good Samaritan effect: A lens for understanding patterns of participation. In *Proceedings of the Eighth International Conference for the Learning Sciences*, 2 (pp. 240-247). Utrecht, Netherlands: International Society of the Learning Sciences. (Available online at www.fi.uu.nl/en/icls2008/574/paper574.pdf)

van de Sande, C., & Leinhardt, G. (under review since Spring 2007). Online calculus courses: A framework for analysis with application to 5 existing courses.

2007

Cuadros, J., Yaron, D., & Leinhardt, G. (2007). One firm spot: The role of homework as lever in acquiring conceptual and performance competence in college chemistry. *Journal of Chemical Education*, 84(6), 1047-1052.

Leinhardt, G., & Larreamendy-Joerns, J. (2007). Variation in the meaning and learning of variation. In M. C. Lovett & P. Shah (Eds.), *Thinking with data* (pp. 177-189). New York: Lawrence Erlbaum Associates.

van de Sande, C., & Leinhardt, G. (2007). Help! Active student learning and error remediation in a calculus e-help community. *The Electronic Journal of e-Learning*, 5(3), 227-238, available online at www.ejel.org

van de Sande, C., & Leinhardt, G. (2007). Online tutoring in the Calculus: Beyond the limit of the limit. *Éducation et Didactique*, 1(2), 115-154. (French journal, article in English).

2006

Larreameydy-Joerns, J., & Leinhardt, G., (2006). Going the distance with online education. *Review of Educational Research*, 76(4), 567-605.

Leinhardt, G., & Knutson, K. (2006). Grandparents speak: Museum conversations across the generations. *Curator* 49(2), 235-252.

Evans, K. L., Karabinos, M., Leinhardt, G., & Yaron, D. (2006). Chemistry in the field and chemistry in the classroom: A cognitive disconnect? *Journal of Chemical Education*, 83(4), 655-661.

2005

Larreameydy-Joerns, J., Leinhardt, G., & Corredor, J. A. (2005). Six online statistics courses: Examination and review. *The American Statistician*, 59(3), 240-251.

Leinhardt, G. (2005). A contrast of novice and expert competence in maths lessons. In P. M. Denicolo & M. Kompf (Eds.), *Teacher thinking and professional action* (pp. 41-57). New York: Routledge. (Representation, with Author Reflection, of the same paper that appeared in T. Lowyck & C. M. Clark [Eds.] [1990]. *Teacher thinking and professional action* (pp. 75-97). Leuven, Belgium: Leuven University Press.)

Leinhardt, G., & Steele, M. (2005). Seeing the complexity of standing to the side: Instructional dialogues. *Cognition and Instruction*, 23(1), 87-163.

Scheines, R., Leinhardt, G., Smith, J., & Cho, K. (2005). Replacing lecture with Web-based course materials. *Journal of Educational Computing Research*, 32(1), 1-26.

2004

Leinhardt, G., & Knutson, K. (2004). *Listening in on museum conversations*. Walnut Creek, CA: Altamira Press.

Yaron, D., Cuadros, J., Leinhardt, G., Evans, K. L., & Karabinos, M. (2004). Virtual labs and scenes to support chemistry instruction: Lessons learned. In *Invention and impact: Building excellence in undergraduate STEM (Science, Technology, Engineering, and Mathematics) Education* (pp.177-182). Washington, DC: American Association for the Advancement of Science.

Yaron, D., Leinhardt, G., & Karabinos, M. (2004). *Shape, transformation, and energy: Critical resources for thinking in chemistry*. Unpublished manuscript, SCALE Project, University of Pittsburgh Learning Research and Development Center, Pittsburgh, PA.

2003

Leinhardt, G., Knutson, K., & Crowley, K. (2003). Museum Learning Collaborative Redux, *Journal of Museum Education*, 28(1), 23-31.

Leinhardt, G., & McQuaide, J. M. (2003). Finding and building the joinable society. *Journal of Educational Computing Research*, 28(2), 163-188.

Parker, M., & Leinhardt, G. (2002/2003). Percent: An emphasis on representation. In M. S. Smith, G. W. Blume, & M. K. Heid (Eds.), *The role of representation in the teaching and learning of mathematics, Part II--2002 PCTM yearbook* (pp. 71-88). University Park, PA: Pennsylvania Council of Teachers of Mathematics.

2002

Abu-Shumays, M., & Leinhardt, G. (2002). Two docents in three museums: A study of central and peripheral participation. In G. Leinhardt, K. Crowley, & K. Knutson (Eds.), *Learning conversations in museums* (pp. 45-80). Mahwah, NJ: Lawrence Erlbaum Associates.

Anderson, K.C., & Leinhardt, G. (2002). Maps as representations: Comparison of expert/novice projection understanding. *Cognition and Instruction*, 20(3), 283-321.

Fienberg, J., & Leinhardt, G. (2002) Looking through the glass: Reflections of identity in conversations at a history museum. In G. Leinhardt, K. Crowley, & K. Knutson (Eds.), *Learning conversations in museums* (pp. 167-212). Mahwah, NJ: Lawrence Erlbaum Associates.

Gregg, M., & Leinhardt, G. (2002). Learning from the Birmingham Civil Rights Institute: Documenting teacher development. *American Educational Research Journal*, 39(2), 553-587.

Leinhardt, G., & Crowley, K. (2002). Objects of learning, objects of talk: Changing minds in museums. In S. Paris (Ed.), *Perspectives on object-centered learning in museums* (pp. 301-324). Mahwah, N.J.: Lawrence Erlbaum Associates.

Leinhardt, G., Crowley, K., & Knutson, K. (Eds.) (2002). *Learning conversations in museums*. Mahwah, NJ: Lawrence Erlbaum Associates.

Leinhardt, G., & Gregg, M. (2002). Burning buses, burning crosses: Pre-service teachers see Civil Rights. In G. Leinhardt, K. Crowley, & K. Knutson (Eds.), *Learning conversations in museums* (pp. 139-166). Mahwah, NJ: Lawrence Erlbaum Associates.

Leinhardt, G., Tittle, C., & Knutson, K. (2002). Talking to oneself: Diaries of museum visits. In G. Leinhardt, K. Crowley, & K. Knutson (Eds.), *Learning conversations in museums* (pp. 103-134). Mahwah, NJ: Lawrence Erlbaum Associates.

2001

Crowley, K., Leinhardt, G., & Chang, C. (2001). Emerging research communities and the World-Wide Web: Analysis of a web-based resource for the field of museum learning. *Computers & Education*, 36, 1-14.

Leinhardt, G. (2001). Instructional explanations: A commonplace for teaching and location for contrast. In V. Richardson (Ed.), *Handbook of research on teaching* (4th Ed., pp. 333-357). Washington, DC: American Educational Research Association.

2000

Leinhardt, G. (2000). Lessons on teaching and learning in history from Paul's pen. In P. N. Stearns, P. Seixas, & S. Wineburg (Eds.) *Knowing, teaching and learning history* (pp. 223-245). New York: New York University Press.

1999

McQuaide, J., Leinhardt, G., & Stainton, C. (1999). Ethical reasoning: Real and simulated. *Journal of Educational Computing Research*, 21(4), 433-474.

1998

Bausmith, J. M., & Leinhardt, G. (1998). Middle school students' map construction: Understanding complex spatial displays. *Journal of Geography*, 97(3), 93-107.

Gregg, M., Stainton, C., & Leinhardt, G. (1998). Where is geography? Analyzing geography in newspapers and social studies textbooks. *The International Journal of Research in Geographical and Environmental Education*, 7(3), 1-19.

Leinhardt, G. (1998). On the messiness of overlapping goals and real settings. *Issues in Education*, 4(1), 125-132.

Leinhardt, G., & Crowley, K. (1998). *Museum learning as conversational elaboration: A proposal to capture, code and analyze museum talk*. (Museum Learning Collaborative Technical Report MLC-01). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center. (<http://museumlearning.org/paperresearch.html>)

Leinhardt, G., Stainton, C., & Bausmith, J. M. (1998). Constructing maps collaboratively. *Journal of Geography*, 97(1), 19-30.

Schauble, L., Leinhardt, G., & Martin, L. (1998). A framework for organizing a cumulative research agenda in informal learning contexts. *Journal of Museum Education*, 22(2&3), 3-8. (Also in J. S. Hirsch & L. H. Silverman [Eds.], *Transforming practice: Selections from the Journal of Museum Education, 1992-1999* [pp. 188-199]. Washington, DC: Museum Education Roundtable.)

Young, K. M., & Leinhardt, G. (1998). Writing from primary documents: A way of knowing in history. *Written Communication*, 15(1), 25-86.

Young, K. M., & Leinhardt, G. (1998). Wildflowers, sheep, and democracy: The role of analogy in the teaching and learning of history. In J. F. Voss, & M. Carretero (Vol. Eds.), *International review of history education: Vol. 2. Learning and reasoning in history* (pp. 154-196). London: Woburn Press.

1997

Gregg, M., Stainton, C., & Leinhardt, G. (1997). Strategies for geographic memory: Oh what a state we're in! *International Research in Geographical and Environmental Education*, 6(1), 41-58.

Leinhardt, G. (1997). Instructional explanations in history. *International Journal of Educational Research*, 27(3), 221-232.

Leinhardt, G., & Schwarz, B. B. (1997). Seeing the problem: An explanation from Pólya. *Cognition and Instruction*, 15(3), 395-434.

1996 and Prior

Leinhardt, G., & Young, K. M. (1996). Two texts, three readers: Distance and expertise in reading history. *Cognition and Instruction*, 14(4), 441-486.

Leinhardt, G., Young, K. M., & Merriman, J. (1995). Integrating professional knowledge: The theory of practice and the practice of theory. *Learning and Instruction*, 5, 401-408.

Parker, M., & Leinhardt, G. (1995). Percent: A privileged proportion. *Review of Educational Research*, 65(4), 421-481.

- Gregg, M., & Leinhardt, G. (1994). Mapping out geography: An example of epistemology and education. *Review of Educational Research*, 64(2), 311-361.
- Leinhardt, G. (1994). Comments on Thomas Romberg's chapter. In A. H. Schoenfeld (Ed.), *Mathematical thinking and problem solving* (pp. 305-311). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leinhardt, G. (1994). History: A time to be mindful. In G. Leinhardt, I. L. Beck, & C. Stainton (Eds.), *Teaching and learning in history* (pp. 209-255). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leinhardt, G., Beck, I. L., & Stainton, C. (Eds.). (1994). *Teaching and learning in history*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leinhardt, G., & McCormick, A. (1994). Videotape and audiotape recording in educational research. In T. Husen & T. N. Postlethwaite (Eds.), *The international encyclopedia of education* (2nd ed., Vol. 11, pp. 6604-6608). Oxford: Pergamon.
- Leinhardt, G., Stainton, C., & Virji, S. M. (1994). A sense of history. *Educational Psychologist*, 29(2), 79-88.
- Leinhardt, G., Stainton, C., Virji, S. M., & Odoroff, E. (1994). Learning to reason in history: Mindlessness to mindfulness. In M. Carretero & J. Voss (Eds.), *Cognitive and instructional processes in history and the social sciences* (pp. 131-158). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gregg, M., & Leinhardt, G. (1993). Geography in history: What is the where? *Journal of Geography*, 92(2), 56-63.
- Leinhardt, G. (1993). Instructional explanations in history and mathematics. In W. Kintsch (Ed.), *Proceedings of the Fifteenth Annual Conference of the Cognitive Science Society* (pp. 5-16). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leinhardt, G. (1993). On teaching. In R. Glaser (Ed.), *Advances in instructional psychology* (Vol. 4, pp. 1-54). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leinhardt, G. (1993). Weaving instructional explanations in history. *British Journal of Educational Psychology*, 63, 46-74.
- Leinhardt, G. (1992). What research on learning tells us about teaching. *Educational Leadership*, 49(7), 20-25.
- Leinhardt, G., Putnam, R. T., & Hatrup, R. A. (Eds.) (1992). *Analysis of arithmetic for mathematics teaching*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leinhardt, G. (1991). Evaluating the *New Handbook of Teacher Evaluation* [Review of the *New Handbook of Teacher Evaluation*]. *Educational Researcher*, 20(6), 23-25.
- Leinhardt, G., Putnam, R. T., Stein, M. K., & Baxter, J. (1991). Where subject knowledge matters. In J. Brophy (Ed.), *Advances in research on teaching* (Vol. 2, pp. 87-113). Greenwich CT: JAI Press.
- Miller, S. E., Leinhardt, G., & Zigmond, N. (1991). Accommodating at-risk pupils. *SET: Research information for teachers*, 1, item 8.
- Leinhardt, G. (1990). Capturing craft knowledge in teaching. *Educational Researcher*, 19(2), 18-25.
- Leinhardt, G. (1990). A contrast of novice and expert competence in math lessons. In J. Lowyck, & C. Clark (Eds.), *Teacher thinking and professional action* (pp. 75-97). Leuven, Belgium: Leuven University Press.

- Leinhardt, G. & Ohlsson, S. (1990). Tutorials on the structure of tutoring from teachers. *Journal of Artificial Intelligence in Education*, 2(1), 21-46.
- Leinhardt, G., Zaslavsky, O., & Stein, M. K. (1990). Functions, graphs, and graphing: Tasks, learning, and teaching. *Review of Educational Research*, 60(1), 1-64.
- Putnam, R. T., deBettencourt, L. U., & Leinhardt, G. (1990). Understanding of derived fact strategies in addition and subtraction. *Cognition and Instruction*, 7(3), 245-285.
- Stein, M. K., Baxter, J., & Leinhardt, G. (1990). Subject matter knowledge and elementary instruction: A case from functions and graphing. *American Educational Research Journal*, 27(4), 639-663.
- Leinhardt, G. (1989). Math lessons: A contrast of novice and expert competence. *Journal for Research in Mathematics Education*, 20(1), 52-75.
- Stein, M. K., Leinhardt, G., & Bickel, W. (1989). Instructional issues for teaching students at risk. In R. E. Slavin, N. L. Karweit, & N. A. Madden, (Eds.), *Effective programs for students at risk* (pp. 145-194). Boston: Allyn and Bacon.
- Leinhardt, G. (1988). Expertise in instructional lessons: An example from fractions. In D. A. Grouws, & T. J. Cooney (Eds.), *Perspectives on research on effective mathematics teaching* (Vol. 1 in a series of monographs from conferences of the National Council of Teachers of Mathematics, pp. 47-66). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leinhardt, G. (1988). Getting to know: Tracing students' mathematical knowledge from intuition to competence. *Educational Psychologist*, 23 (2), 119-144.
- Leinhardt, G. (1988). Situated knowledge and expertise in teaching. In J. Calderhead (Ed.), *Teachers' professional learning* (pp. 146-168). London: Falmer Press.
- Griffey, Q. L., Jr., Zigmond, N., & Leinhardt, G. (1988). The effects of self-questioning and story structure training on the reading comprehension of poor readers. *Learning Disabilities Research*, 4(1), 45-51.
- Miller, S. E., Leinhardt, G., & Zigmond, N. (1988). Influencing engagement through accommodation: An ethnographic study of at-risk students. *American Educational Research Journal*, 25(4), 465-487.
- Leinhardt, G. (1987). Development of an expert explanation: An analysis of a sequence of subtraction lessons. *Cognition and Instruction*, 4 (4), 225-282. Also in L. B. Resnick (Ed.) (1989), *Knowing, learning, and instruction: Essays in honor of Robert Glaser* (pp. 67-124). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leinhardt, G., & Bickel, W. (1987). Instruction's the thing wherein to catch the mind that falls behind. *Educational Psychologist*, 22 (2), 177-207. Also in R. Slavin (Ed.) (1989), *School and classroom organization* (pp. 197-246). Hillsdale, NJ: Lawrence Erlbaum Associates.)
- Leinhardt, G., & Putnam, R. T. (1987). The skill of learning from classroom lessons. *American Educational Research Journal*, 24 (4), 557-587.
- Leinhardt, G., Weidman, C., & Hammond, K. M. (1987). Introduction and integration of classroom routines by expert teachers. *Curriculum Inquiry*, 17 (2), 135-176.
- Leinhardt, G. (1986). Expertise in mathematics teaching. *Educational Leadership*, 43 (7), 28-33.
- Leinhardt, G., & Greeno, J. (1986). The cognitive skill of teaching. *Journal of Educational Psychology*, 78 (2), 75-95. Also appears in P. Goodyear (Ed.) (1991), *Teaching knowledge and intelligent tutoring*. Norwood, NJ: Ablex.

- Leinhardt, G., & Putnam, R. T. (1986). Profile of expertise in elementary school mathematics teaching. *Arithmetic Teacher*, 34 (4), 28-29.
- Leinhardt, G., & Leinhardt, S. (1985). Exploratory data analysis. In T. Husen & N. Postlethwaite (Eds.), *International encyclopedia of education: Research and studies* (Vol. 3, pp. 1294-1303). Oxford, England: Pergamon Press Ltd.
- Leinhardt, G. (1985). Instructional time: A winged chariot? In C. W. Fisher & D. C. Berliner, (Eds.), *Perspectives on instructional time* (pp. 263-282). New York: Longman Press.
- Leinhardt, G., & Smith, D. (1985). Expertise in mathematics instruction: Subject matter knowledge. *Journal of Educational Psychology*, 77(3), 241-271.
- LeMahieu, P., & Leinhardt, G. (1985). Overlap: Influencing what's taught. *Journal of Classroom Interaction*, 21(1), 2-11.
- Leinhardt, G. (1985). Types of content in lessons. In T. Husen & N. Postlethwaite (Eds.), *International encyclopedia of education: Research and studies*. (Vol. 5, pp. 3015-3020). Oxford, England: Pergamon Press Ltd.
- Leinhardt, G. (1985). Videotape recording in educational research. In T. Husen & N. Postlethwaite (Eds.), *International encyclopedia of education: Research and studies* (Vol. 9, pp. 5442-5445). Oxford, England: Pergamon Press Ltd.
- Leinhardt, G. (1983). Novice and expert knowledge of individual students' achievement. *Educational Psychologist*. 18(3), 165-179.
- Leinhardt, G., & Leinhardt, S. (1983). The evaluation of social outcomes in education. In E. Yuchtman Yaar & S. E. Spiro (Eds.), *Evaluating the welfare state: Social and political perspectives* (pp. 295-317). New York: Academic Press.
- Leinhardt, G. (1982). Overlap: Testing whether it's taught. In G. F. Madaus (Ed.), *The courts, validity, and minimum competency testing* (pp. 153-170). Boston: Kluwer-Nijhoff Publishing.
- Leinhardt, G., Bickel, W., & Pally, A. (1982). Unlabeled but still entitled: Toward more effective remediation. *Teachers College Record*, 84(2), 391-423.
- Leinhardt, G., & Leinhardt, S. (1982). Stem-and-leaf displays. In Nick L. Smith (Ed.), *Communication strategies in evaluation* (pp. 209-219). Beverly Hills, CA: Sage Publications.
- Leinhardt, G., & Pally, A. (1982). Restrictive educational settings: Exile or haven? *Review of Educational Research*, 52(4), 557-578.
- Leinhardt, G., Seewald, A. M., & Zigmond, N. (1982). Sex and race differences in LD classrooms. *Journal of Educational Psychology*, 74(6), 835-843. (LRDC Publication 1981/5).
- Zigmond, N., Vallecorsa, A., & Leinhardt, G. (1982). Reading instruction for students with learning disabilities. In K. G. Butler, & G. P. Wallach (Eds.), *Language disorders and learning disabilities* (pp. 89-98). Rockville, MD: Aspen Systems Corp. (LRDC Publication 1984/42).
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- Leinhardt, G., & Seewald, A. M. (1981). Overlap: What's tested, what's taught? *Journal of Educational Measurement*, 18(2), 85-96. (LRDC Publication 1980/16).
- Leinhardt, G., & Seewald, A. M. (1981). Student-level Observation of Beginning Reading. *Journal of Educational Measurement*, 18(3), 171-177.

- Leinhardt, G., Zigmond, N., & Cooley, W. W. (1981). Reading instruction and its effects. *American Educational Research Journal*, 18(3), 343-361.
- Leinhardt, G. (1980). Modeling and measuring educational treatment in evaluation. *Review of Educational Research*, 50(3), 393-420.
- Leinhardt, G. (1980). Transition rooms: Promoting maturation or reducing education? *Journal of Educational Psychology*, 72(1), 55-61.
- Leinhardt, G., & Leinhardt, S. (1980). Exploratory data analysis: New tools for the analysis of empirical data. In D. Berliner (Ed.), *Review of Research in Education*, Vol. 8, (pp. 85-157). American Educational Research Association.
- Leinhardt, G., & Seewald, A. M. (1980). *Student-level Observation of Beginning Reading Manual*. Pittsburgh: Learning Research and Development Center. (LRDC Publication 1980/20).
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Cooley, W. W., & Leinhardt, G. (1975). *The application of a model for investigating classroom processes*. Pittsburgh: Learning Research and Development Center. (LRDC Publication 1975/24).

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Leinhardt, G. (1973). *A training program for selected teacher functions*. Pittsburgh: Learning Research and Development Center. (LRDC Publication 1973/20).

Technical Reports:

Corredor, J., & Leinhardt, G. (2006). *Evaluation of statistics: Addendum to The American Statistician article (08/2005)*. (OLI Evaluation Series Technical Report). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center; and Open Learning Initiative, Carnegie Mellon University.

Leinhardt, G., Fienberg, J., Bausmith, J. M., & Anderson, K. C. (1997). *Portraits in Restructuring: Final report*. (Confidential report to School Restructuring Evaluation Project, LRDC.) Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G. (1996). *Focusing on knowledge and actions for teaching*. (Tech. Rep. No. CLIP-96-05). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G. & Fienberg, J. (1996). *Melding knowledge systems in the practice of teaching* (Tech. Rep. No. CLIP-96-02). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G. & Stainton, C. (1996). *Constructing maps collaboratively* (Tech. Rep. No. CLIP-96-04). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Young, K. M., & Leinhardt, G. (1996). *Writing from primary documents: A way of knowing in history*. (Tech. Rep. No. CLIP-96-01). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

McQuaide, J. M., Fienberg, J. L., & Leinhardt, G. (1995). *The value of character: Final report of a study of the STAR program* (CLIP-95-02). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Gregg, M., & Leinhardt, G. (1993). *Mapping out geography: An example of epistemology and education* (Tech. Rep. No. CLIP-93-01). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G., & Fienberg, J. (1992). *Integration of lesson structure and teachers' subject matter knowledge* (Tech. Rep. No. CLIP 92-02). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G., Stainton, C., & Virji, S. M. (1992). *A sense of history* (Tech. Rep. No. CLIP-92-04). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G., Stainton, C., Virji, S. M., & Odoroff, E. (1992). *Learning to reason in history: Mindlessness to mindfulness* (Tech. Rep. No. CLIP-92-03). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Stainton, C., & Leinhardt, G. (1992). *On a role: Beginning the year in AP history* (Tech. Rep. No. CLIP-92-05). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Gregg, M., Stainton, C., & Leinhardt, G. (1991). *Strategies for geographic memory: Oh, what a state we're in!* (Tech. Rep. No. CLIP-91-03). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

McQuaide, J., Fienberg, J., & Leinhardt, G. (1991). *Transcript of "Pólya: Let us teach guessing."* (Tech. Rep. No. CLIP-91-01). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Gregg, M., Stainton, C., & Leinhardt, G. (1990). *Where is geography? Three studies of thinking and teaching*. (Tech. Rep. No. CLIP-90-04). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G. (1990). *Towards understanding instructional explanations*. (Tech. Rep. No. CLIP-90-03). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G. (1990). *Weaving instructional explanations in history*. (Tech. Rep. No. CLIP-90-02). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G., Zaslavsky, O., & Stein, M. K. (1990). *Annotated bibliography of selected articles on graphing and functions*. (Tech. Rep. No. CLIP-90-01). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Odoroff, E., & Leinhardt, G. (1990). *Writing tales with details*. (Tech. Rep. No. CLIP-90-05). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Grover, B., Zaslavsky, O., & Leinhardt, G. (1989). *An approach to the design and development of a scoring system for a new teacher assessment: The semi-structured interview*. (Tech. Rep. No. CLIP-89-02). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Leinhardt, G., & Ohlsson, S. (1989). *Tutorials on the structure of tutoring from teachers*. (Tech. Rep. No. CLIP-89-03). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

Stein, M. K., Baxter, J., & Leinhardt, G. (1989). *Teacher subject matter knowledge and its relationship to classroom instruction*. (Tech. Rep. No. CLIP-89-01). Pittsburgh, PA: University of Pittsburgh, Learning Research and Development Center.

(List of earlier technical reports available on request.)

Presentations:

2008

van de Sande, C., & Leinhardt, G. (2008, June). *The Good Samaritan effect: A lens for understanding patterns of participation*. Paper presented at the International Conference for the Learning Sciences (ICLS), Utrecht, The Netherlands.

van de Sande, C., & Leinhardt, G. (2008, March). *Online tutoring: Complexity, community, and calculus*. Poster presented (by the 2nd author) at the annual meeting of the American Educational Research Association, New York.

2007

Leinhardt, G. (2007, May). *Routines*. Paper presented at an invited conference on the role of routines in improving mathematical learning, chaired by Magdelene Lampert, University of Michigan, Ann Arbor.

Leinhardt, G. (2007, April). *THEMaT: Research, reflection, and response*. Commentary given in abstentia (because of weather) at the annual meeting of the American Educational Research Association, Chicago.

van de Sande, C., & Leinhardt, G. (2007, June). *Help! Online calculus tutoring*. Paper presented at the 2nd International Conference on e-Learning, Teachers College, Columbia University, New York.

2005

Yaron, D., Leinhardt, G., Karabinos, M., Cuadros, J., & Evans, K. (2005, December). *Virtual labs and scenario-based learning for introductory chemistry*. Paper presented at the Pacificchem 2005 conference, Honolulu, HI.

Cuadros, J., Yaron, D., Karabinos, M., & Leinhardt, G. (2005, August). *Virtual labs and scenario-based homework for introductory chemistry*. Paper presented at the 230th National Meeting of the American Chemical Society, Washington, DC.

Yaron, D., Evans, K. L., Leinhardt, G., Karabinos, M., Cuadros, J., McCue, W. P., Dennis, D. H., & Palucka, T. (2005, August). *Using the field of chemistry to guide in the development of an on-line stoichiometry course*. Paper presented at the 230th National Meeting of the American Chemical Society, Washington, DC.

Cuadros, J., Yaron, D., & Leinhardt, G. (2005, June). *The role of homework as lever in a large college chemistry class*. Paper presented at the Gordon Research Conference on Chemistry Education Research & Practice, New London, CT.

Cuadros, J., Yaron, D., Karabinos, M., & Leinhardt, G. (2005, May). *Virtual labs and scenario-based homework for introductory chemistry: Resources and results*. Paper presented at the First-Year Undergraduate Chemistry Education International Conference, Urbana-Champaign, IL.

Evans, K., Karabinos, M., Leinhardt, G., & Yaron, D. (2005, May). *Chemistry in the field and chemistry in the classroom: A cognitive disconnect?* Poster presented at the First-Year Undergraduate Chemistry Education International Conference, Urbana-Champaign, IL.

Leinhardt, G. (2005, May). *Museums, conversations, and learning: Causal connections*. Paper presented at "Talk and Dialogue: How Discourse Patterns Support Learning," Festschrift for Lauren Resnick, University of Pittsburgh, Learning Research and Development Center, Pittsburgh, PA, May 6-8, 2005.

Yaron, D., Cuadros, J., Karabinos, M., Rehm, E., Palucka, T., Leinhardt, G., & Evans, K. (2005, March). *Using digital libraries to build educational communities: The Chemistry Collective*. Paper presented at the 229th National Meeting of the American Chemical Society, San Diego, CA.

Yaron, D., Karabinos, M., Cuadros, J., Rehm, E., Palucka, T., Leinhardt, G., & Evans, K. (2005, March). *Using virtual lab activities for introductory chemistry*. Workshop presented at the 170th Two-Year College Chemistry Conference, Palomar College, San Marcos, CA.

Leinhardt, G. (2005, February). *One firm spot: The role of homework as lever in acquiring conceptual and performance competence in college chemistry*. Paper presented at a meeting of the LRDC Supergroup, Learning Research and Development Center, University of Pittsburgh, Pittsburgh, PA.

2004

Leinhardt, G., & Larreamendy-Joerns, J. (2004, June). *Variability, error, and uncertainty*. Discussion for the 33rd Carnegie Symposium on Cognition: Thinking with data, June 4-6, 2004, Carnegie Mellon University, Pittsburgh, PA.

Yaron, D., Karabinos, M., Leinhardt, G., Freeland, R., Rehm, E., Cuadros, J., Palucka, T., Milton, D. J., Evans, K., & Zhang, B. (2004, June). *Using digital libraries to build educational communities: The ChemCollective*. Demonstration presented at the 4th ACM/IEEE-CS Joint Conference on Digital Libraries, Tucson, AZ.

Zhang, B., Evans, K., Leinhardt, G., & Yaron, D. (2004, July). *Using on-line experiments to promote conceptual understanding and reasoning about chemistry: Comparison of different instructional designs*. Paper presented at the 18th Biennial Conference on Chemical Education, Ames, IA.

Evans, K., Karabinos, M., Leinhardt, G., & Yaron, D. (2004, July). *Chemistry in the field and chemistry in the classroom: A disconnect?* Paper presented at the 18th Biennial Conference on Chemical Education, Ames, IA.

Yaron, D., Leinhardt, G., Karabinos, M., Rehm, E., Freeland, R., Cuadros, J., Evans, K., Zhang, B., Milton, D. J., & Palucka, T. (2004, July). *Using digital libraries to build educational communities: The ChemCollective*. Paper presented at the 18th Biennial Conference on Chemical Education, Ames, IA.

Yaron, D., Karabinos, M., Cuadros, J., Rehm, E., Palucka, T., Evans, K., & Leinhardt, G. (2004, July). *Using and authoring virtual lab activities for introductory chemistry*. Workshop presented at the 18th Biennial Conference on Chemical Education, Ames, IA.

Yaron, D., Karabinos, M., Cuadros, J., Rehm, E., Palucka, T., Leinhardt, G., & Evans, K. (2004, October). *Using virtual lab activities for introductory chemistry*. Workshop presented at the 12th Annual Meeting of the Washington College Chemistry Teachers' Association, Leavenworth, WA.

Yaron, D., Freeland, R., Milton, D. J., Karabinos, M., Lange, D., Cuadros, J., Rehm, E., Palucka, T., Leinhardt, G., Evans, K., & Corredor, J. (2004, November). *Using digital libraries to build educational communities: The Chemistry Collective*. Poster presented at the 2004 National Science Digital Libraries Annual Meeting, Chicago, IL.

Leinhardt, G. (2004, April). *Lessons on learning from the Museum Learning Collaborative*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.

Smith, M.S., Leinhardt, G., & Silver, E.A. (2004, April). *Cases as a vehicle for building representational flexibility*. Poster presented at the annual meeting of the American Educational Research Association, San Diego.

2003

Leinhardt, G., & Larreamendy, J. (2003, April). *The evaluative dance*. Paper presented at the annual meeting of the American Educational Research Association, Chicago

Smith, M., Silver, E. Leinhardt, G., & Hillen, A. (2003, April). *Distinguishing between additive and multiplicative relationships: Tracing the development of teachers' understanding of proportionality in a practice-based course*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

2002

Leinhardt, G. (2002, February). *Learning conversations in museums*. Paper presented at the annual Winter Text Conference, Jackson Hole, WY.

2001

Leinhardt, G. (2001, April). *Learning conversations over time: The development of explanation in museums*. Paper presented in a symposium entitled "Learning Conversations in Museums" at the annual meeting of the American Educational Research Association, Seattle.

Leinhardt, G. (2001, April). Plenary Address on Learning in Museums, at the Pennsylvania Statewide Museum Conference—"Museums Reflect", Pittsburgh, PA.

Presentations in 2000 and Prior

Leinhardt, G. (2000, May/June). *Future directions for research in geography education*. Invited paper, National Center for Geographic Information and Analysis Conference, University of California at Santa Barbara.

Gregg, M., & Leinhardt, G. (2000, April). *Finding identity from the past: Student teachers at the Birmingham Civil Rights Institute (BCRI)*. Poster presented at the annual meeting of the American Educational Research Association, New Orleans.

Leinhardt, G., & Tittle, C. (2000, April). *Talking to oneself: Diary studies of museum visits*. Poster presented at the annual meeting of the American Educational Research Association, New Orleans.

Leinhardt, G., & McQuaide, J. (2000, April). *Finding and building the joinable society*. Poster presented at the annual meeting of the American Educational Research Association, New Orleans.

Leinhardt, G. (2000, February). *Museum learning*. Talk presented to the Institute for Learning, Learning Research and Development Center, University of Pittsburgh, Pittsburgh, PA.

McQuaide, J., Leinhardt, G., & Stainton, C. (2000, April). *Ethical reasoning: Personal and simulated*. Poster presented at the annual meeting of the American Educational Research Association, New Orleans.

Leinhardt, G. (1999, November). *Learning from the Birmingham Civil Rights Institute: A case of the power and the weakness of informal learning*. Invited address presented at the College of Education, University of Washington, Seattle.

Leinhardt, G. (1999, October). *One discipline, two literacies: Cases of history learning*. Talk presented at a meeting of the National Academy of Education, Pittsburgh, PA.

Leinhardt, G. (1999, September). *Museum Learning Collaborative: Research progress*. Talk presented at the Learning in Museums Seminar of the American Association of Museums, Bozeman, Montana.

Leinhardt, G. (1999, August). *Finding and building the joinable society*. Talk prepared for the 8th meeting of the European Association for Research on Learning and Instruction (EARLI), Göteborg, Sweden.

Leinhardt, G. (1999, August). *Netting the Web: Analyzing the Museum Learning Collaborative (MLC) web site*. Talk presented at the annual meeting of the Visitors Study Association, Chicago.

Leinhardt, G. (1998, November). *Lessons on learning and teaching in history from Paul's pen and Paul's voice*. Paper presented at the Spencer Foundation's Conference on Teaching, Learning, and Knowing History, Pittsburgh, PA.

Leinhardt, G. (1998, May). *Museum Learning Collaborative: A progress report*. Presentation at the annual meeting of the American Association of Museums, Los Angeles.

Leinhardt, G. (1998, April). *Paths to a joinable society: Student understanding*. Poster presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Leinhardt, G. (1997, October). *Instructional explanations: Designing discourse for learning and achievement*. Invited address at the Institute for Learning, Learning Research and Development Center, University of Pittsburgh, Pittsburgh, PA.

Leinhardt, G. (1997, July). *Museum Learning Collaborative*. Presentation to the directorial, curatorial, and educational communities of the Carnegie Museums, Pittsburgh, PA.

Leinhardt, G. (1997, June). *Museum Learning Collaborative*. Invited address at the Learning in Museums II conference of the American Association of Museums, Philadelphia.

Leinhardt, G. (1997, March). *Standing to the side: A look from a different angle*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Leinhardt, G. (1997, January). *A song in four parts: What research on learning suggests about teaching*. Invited address presented at the Winter Institute Meeting of the American Federation of Teachers, Washington, DC.

Merriman, J., & Leinhardt, G. (1997, March). *Integrating geographic knowledge and spatial reasoning: The case of collaborative construction*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Leinhardt, G. (1996, September). *Diagnosis: Distinguishing, thoroughly mystical knowledge*. Paper presented at a conference on "The Growing Mind," Geneva, Switzerland.

Leinhardt, G. (1996, April). *Focusing on knowledge systems for teaching*. Paper presented at the annual meeting of the American Educational Research Association, New York.

Leinhardt, G. & Stainton, C. (1996, April). *Constructing maps collaboratively*. Paper presented at the annual meeting of the American Educational Research Association, New York.

Leinhardt, G. (1995, May). *Paul's voice, Paul's pen: Learning to reason in history*. Paper presented at the Tanner Symposium on Memory, Representation, and Culture, Utah State University, Logan, UT. (Also presented as a poster at the Department of Instruction and Learning Second Annual Poster Session, School of Education, University of Pittsburgh, Pittsburgh, PA, March, 1995).

Leinhardt, G. (1995, February). *Paul's pen*. Paper presented at the sixth annual Winter Text Conference, Jackson Hole, WY.

Leinhardt, G. (1995, January). *A song in four parts: What research on learning suggests about teaching*. Invited Address presented at the Winter Institute Meeting of the American Federation of Teachers, Washington, DC.

Gregg, M., & Leinhardt, G. (1994, April). *Constructing geography*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Leinhardt, G. (1994, April). *Paul's voice, Paul's pen: Learning to reason in history*. Paper presented at University of California, Berkeley.

Leinhardt, G. (1994, April). *Two texts, three readers: Distance and expertise in reading history*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans. A version of this paper (*Two texts, three readers: Issues of distance and expertise*) was presented at the Winter Text Conference, January, 1993.

Leinhardt, G. (1994, January). *Paul's voice*. Paper presented at the fifth annual Winter Text Conference, Jackson Hole, WY.

McCarthy, K., & Leinhardt, G. (1994, April). *Writing history: Student production and integration of text*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Stainton, C., & Leinhardt, G. (1994, April). *Telling the tale: Narrative explanation in history*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Leinhardt, G. (1993, September). *Instructional explanation: A framework*. Paper presented at the annual meeting of the European Association for Research on Learning and Instruction, Aix-en-Provence, France. A version of this paper (*Instructional explanations in history and mathematics*) was presented at the annual meeting of the Cognitive Science Society, June 1993.

Leinhardt, G. (1993, September). *What is history: Views from historians and teachers*. Paper presented at the annual meeting of the European Association for Research on Learning and Instruction, Aix-en-Provence, France. A version of this paper (*A sense of history*) appears in the Publications List.

Schwarz, B., & Leinhardt, G. (1993, September). *Seeing the problem: An explanation from Pólya*. Paper presented at the annual meeting of the European Association for Research on Learning and Instruction, Aix-en-Provence, France.

Leinhardt, G. (1993, June). *Instructional explanations in history and mathematics*. Paper presented at the fifteenth annual meeting of the Cognitive Science Society, Boulder, Colorado.

Leinhardt, G., & Fienberg, J. (1993, June). *Melding knowledge systems in the practice of teaching*. Paper presented at the Binational Workshop on Teachers' Cognition of Pedagogical Content Knowledge, Tel Aviv, Israel.

Leinhardt, G. (1993, April). *Equity and authentic teacher assessment: Using dialogues*. Talk presented at the annual meeting of the American Educational Research Association, Atlanta.

McCarthy, K., & Leinhardt, G. (1993, April). *Wildflowers, sheep, and democracy: The role of analogy in the teaching of history*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta.

Leinhardt, G. (1993, January). *Two texts, three readers: Issues of distance and expertise*. Paper presented at the fourth annual Winter Text Conference, Jackson Hole, WY.

Leinhardt, G. (1992, October). *Learning to reason in history: Mindlessness to mindfulness*. Paper presented at the seminar on "Reasoning and Instruction in History and the Social Sciences," Madrid, Spain.

Leinhardt, G. (1992, April). *Standing to the side: A case of instructional dialogues on functions and graphing*. Paper presented at the 70th annual meeting of the National Council of Teachers of Mathematics, Nashville, TN.

Gregg, M., & Leinhardt, G. (1992, April). *Geography in history: What is the where?* Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Stainton, C., & Leinhardt, G. (1992, April). *Beginning and ending the year in history.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Leinhardt, G. (1991, August). *Weaving instructional explanations in history.* Paper presented at the Fourth European Conference for Research on Instruction and Learning, Turku, Finland.

Gregg, M., Stainton, C., & Leinhardt, G. (1991, April). *Strategies for geographic memory: Oh what a state we're in.* Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Odoroff, E., & Leinhardt, G. (1991, April). *Writing tales with details: How one writing teacher established conditions of concept use.* Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Gregg, M., Stainton, C., & Leinhardt, G. (1990, April). *Where is geography? Three studies of thinking and teaching.* Paper presented at the annual meeting of the American Educational Research Association, Boston.

Leinhardt, G. (1990, April). *Analysis of instructional explanations.* Paper presented at the annual meeting of the American Educational Research Association, Boston.

Leinhardt, G. (1990, October). *Oblique teaching: The art of explaining through instructional dialogues.* Talk presented to the Psychology Department, Stanford University.

Leinhardt, G. (1990, October). *Subject matter episodes in support of a middle school specialization.* Paper presented at a San Francisco State University/California State Department of Education/California State University invitational conference, "Implementing the Middle Level Emphasis Credential," San Francisco.

Leinhardt, G. (1990, November). *Background paper for the Third International Math and Science Study.* Paper presented at a meeting of the National Center for Educational Statistics, Washington, D.C.

Leinhardt, G., & Grover, B. (1990, April). *Transforming translations: A case of collaboration.* Paper presented at the annual meeting of the American Educational Research Association, Boston.

Leinhardt, G. (1989, October). *Instructional explanations in mathematics and history.* Talk presented at a meeting of the James S. McDonnell Foundation Program in Cognitive Studies for Educational Practice, Pittsburgh, PA.

Leinhardt, G., & Stein, M. K. (1989, June). *The teaching and learning of graphing and functions.* Presented at the Conference on Learning, LRDC, University of Pittsburgh, Pittsburgh, PA.

Leinhardt, G. (1989, March). *Thinking in history.* Paper presented at a University of Pittsburgh School of Education Conference, "Teaching thinking: What can the researchers tell us?", Pittsburgh PA.

Leinhardt, G., & Odoroff, E. (1989, March). *Caesar to Casey: Mindfulness or mindlessness in history instruction.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Leinhardt, G., & Ohlsson, S. (1989, March). *Tutorials on the structure of tutoring from teachers.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Leinhardt, G., Zaslavsky, O., & Stein, M. K. (1989, March). *A preliminary review of graphing and functions.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Leinhardt, G. (1989, February). *Instructional explanations*. Paper presented at the Cognition and Education Workshop, Institute for Research on Learning, Palo Alto CA.

Baxter, J., Leinhardt, G., & Stein, M. K. (1988, April). *The role of representations in instructional explanations*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans LA.

Leinhardt, G., & Grover, B. (1988, September). *Scoring semi-structured interviews in mathematics*. Paper presented as part of a session, "Scoring Assessment Center Exercises: Illustrations," at the Seminar III meeting of the New Interstate Teacher Assessment and Support Consortium, Hartford CT.

Leinhardt, G. (1988, April). *Infusing teacher assessment with the wisdom of practice*. Presented at the Pennsylvania Association of Colleges & Teacher Educators (PAC-TE), Western Regional Meeting, Pittsburgh PA.

Leinhardt, G. (1988, April). *Capturing craft knowledge*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans LA.

Leinhardt, G., Stein, M. K., & Baxter, J. (1988, April). *What a difference a class makes*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans LA.

Miller, S., Zigmond, N., & Leinhardt, G. (1988, April). *Experiential features of secondary schooling for high risk LD students. Part 2: Social integration*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans LA.

Prince, C., & Leinhardt, G. (1988, April). *The essential role of educational research/knowledge base: Establishing a grounding for the reform*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans LA.

Stein, M. K., Baxter, J., & Leinhardt, G. (1988, April). *Teacher knowledge and its relationship to classroom instruction*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans LA.

Leinhardt, G. (1987, October). *Integration of lesson structure and teachers' subject matter knowledge*. Paper presented at the University of Chicago, Chicago IL.

Leinhardt, G. (1987, October). *Teacher assessment at the state and national level*. Paper presented at the First Northeast Regional Holmes Conference, Boston MA.

Leinhardt, G. (1987, July). *Situated knowledge: An example from teaching*. Paper presented at the Conference on Teachers' Professional Learning, University of Lancaster, Lancaster, England.

Leinhardt, G. (1987, April). *Situated knowledge*. Paper presented at the annual meeting of the American Educational Research Association, Washington DC.

Leinhardt, G. (1987, April). *What does subject matter knowledge buy?* Paper presented at the annual meeting of the American Educational Research Association, Washington DC.

Leinhardt, G., & Fienberg, J. (1987, April). *Integration of lesson structure and subject matter knowledge*. Paper presented at the annual meeting of the American Educational Research Association, Washington DC.

Leinhardt, G., & Fienberg, J. (1987, April). *One day in subtraction*. Paper presented at the biennial meeting of the Society for Research in Child Development, Baltimore MD.

Miller, S. E., Leinhardt, G., & Zigmond, N. (1987, April). *Experiential features of secondary schooling for high risk LD students. Part 1: Academic integration*. Paper presented at the annual meeting of the American Educational Research Association, Washington DC.

Putnam, R. T., Leinhardt, G., & Barnett, C. (1987, April). *Expert teachers' knowledge about their students*. Paper presented at the annual meeting of the American Educational Research Association, Washington DC.

Leinhardt, G. (1987, March). *Expertise in instructional lessons: An example from fractions*. Paper presented at a special meeting of the National Council of Teachers of Mathematics, Columbia MO.

Leinhardt, G. (1986, October). *Math lessons: A contrast of novice and expert competence*. Invitational address at the International Study Association on Teacher Thinking, Third Conference on Teacher Thinking and Professional Action, Leuven, Belgium.

Leinhardt, G. (1986, September). *Novice and expert math lessons*. Presented at a joint LRDC/School of Education Colloquium, University of Pittsburgh.

Leinhardt, G. (1986, September). *The teaching of fractions by novice and expert teachers*. Presented at the Psychology of Mathematics Education Conference, East Lansing MI.

Leinhardt, G. (1986, April). *The nature of expert explanations*. Invitational address presented at the University of Delaware, Newark DE.

Leinhardt, G. (1986, April). *Novice and expert teachers' competence in lesson structure and subject matter explanation*. Presented at the annual meeting of the American Educational Research Association, San Francisco.

Leinhardt, G. (1986, April). *Report on math research at LRDC*. Presented at the annual meeting of the National Council of Teachers of Mathematics, Washington DC.

Leinhardt, G., & Putnam, R. T. (1986, April). *The skill of learning from classroom lessons*. Presented at the annual meeting of the American Educational Research Association, San Francisco.

Putnam, R. T., deBettencourt, L. U., & Leinhardt, G. (1986, April). *Understanding of derived fact strategies in addition and subtraction*. Presented at the annual meeting of the American Educational Research Association, San Francisco.

Putnam, R. T., & Leinhardt, G. (1986, April). *Curriculum scripts and adjustment of content in mathematics lessons*. Presented at the annual meeting of the American Educational Research Association, San Francisco.

Leinhardt, G. (1985, December). *Introduction and integration of classroom routines by expert teachers*. Presented at a symposium on Classroom Studies of Teachers' Personal Knowledge, OISE, Toronto, Canada.

Leinhardt, G. (1985, November). *An expert explanation: Analysis of a sequence of subtraction lessons*. Presented at the University of Arizona, Tucson AZ.

Leinhardt, G. (1985, November). *Towards a model of the student as learner*. Presented at The Schoolwork Conference, San Francisco CA.

Leinhardt, G. (1985, April). *The development of an expert explanation and its effects on student learning*. Presented at the National Council of Teachers of Mathematics, San Antonio TX.

Leinhardt, G. (1985, April). *Expert explanations: Analysis of a sequence of subtraction lessons*. Presented at the annual meeting of the American Educational Research Association, Chicago IL.

Leinhardt, G. (1985, April). *Getting to know: Tracing students' mathematical knowledge from intuition to competence*. Presented at the annual meeting of the American Educational Research Association, Chicago IL.

Leinhardt, G. (1984, November). *Overview of research on teacher and student cognitions*. Presented at a conference entitled Research on Classroom Experience: Linking Pupil and Teacher Cognitions, University of Lancaster, England.

Leinhardt, G., & Smith, D. (1984, April). *Expertise in mathematics instruction: Subject matter knowledge*. Presented at the annual meeting of the American Educational Research Association, New Orleans LA.

Leinhardt, G., Weidman, C., & Hammond, K. M. (1984, April). *Introduction and integration of classroom routines by expert teachers*. Presented at the annual meeting of the American Educational Research Association, New Orleans LA.

Leinhardt, G. (1983, December). *Teaching as a cognitive skill*. Presented at the School of Education 50th Anniversary, Syracuse University, Syracuse NY.

Leinhardt, G. (1983, September). *Interviews and instrument design*. Presented at International Training Workshops for Educational Policy-Makers, Administrators, and Other Interested Professionals from Developing Countries. Educational Project and Program Evaluation, University of Pittsburgh.

Leinhardt, G. (1983 April). *Overview of a program of research on teachers' and students' routines, thoughts, and execution of plans*. Presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Leinhardt, G. (1983, April). *Routines in expert math teachers' thoughts and actions*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Leinhardt, G. (1983, April). *Student cognitions during instruction*. Presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

LeMahieu, P., & Leinhardt, G. (1983, April). *Curriculum alignment: The overlap problem*. Presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Leinhardt, G. (1982, September). *Developing instrumentation*. Presented at the International Training Workshops for Educational Policy-Makers, Administrators, and Other Interested Professionals from Developing Countries. Educational Project and Program Evaluation, University of Pittsburgh.

Leinhardt, G. (1982, March). *Case studies of academic mainstreaming*. Presented at the annual meeting of the American Educational Research Association, New York.

Leinhardt, G. (1982, March). *Novice and expert knowledge of individual students' achievement*. Presented at the annual meeting of the American Educational Research Association, New York.

Leinhardt, G. (1981, October). *Overlap: Testing whether it's taught*. Presented at the Conference on the Courts and content Validity in Minimum Competency Testing, Boston MA.

Leinhardt, G. (1981, August). *Teaching and learning behaviors as achievement mediators*. An invitational presentation at the annual meeting of the American Psychological Association, Los Angeles CA.

Leinhardt, G. (1981, May). *Instructional time: A winged chariot?* Presented at the Conference on Instructional Time, Evanston IL.

Leinhardt, G. (1981, April). *Measures of instructional models or measures for models of instruction*. Presented at the annual meeting of the American Educational Research Association, Los Angeles CA.

Leinhardt, G., Seewald, A.M., & Zigmond, N. (1981, April). *Sex and race differences in learning disabilities classrooms*. Presented at the annual meeting of the American Educational Research Association, Los Angeles CA.

Leinhardt, G., & Leinhardt, S. (1980, December). *The evaluation of social outcomes in education*. Presented at the Pinhas Sapir Conference on Development, Tel Aviv University, Tel Aviv, Israel.

Leinhardt, G. (1980, November). *Measuring instructional environments*. Presented at the convocation on Research on Reading of Learning Disabled Pupils, SUNY, Buffalo NY.

Leinhardt, G., & Seewald, A.M. (1980, April). *Overlap: What's tested, what's taught?* Presented at the annual meeting of the American Educational Research Association, Boston MA.

Leinhardt, G., & Seewald, A.M. (1980, April). *A summary of the Student-level Observation of Beginning Reading*. Presented at the annual meeting of the American Educational Research Association, Boston MA.

Leinhardt, G., Zigmond, N., & Cooley, W. W. (1980, April). *Reading instruction and its effects*. Presented at the annual meeting of the American Educational Research Association, Boston MA.

Leinhardt, G., & Leinhardt, S. (1979, August). *An evaluative contrast of two courses in applied statistics and data analysis*. Presented at the annual meeting of the American Sociological Association, Boston MA.

Leinhardt, G. (1979, March). *Critical features of reading instruction for learning disabled students*. Presented at the International Conference of the Association for Children with Learning Disabilities, San Francisco CA.

Leinhardt, G. (1978, March). *Applying a classroom process model to instructional evaluation*. Presented at the annual meeting of the American Educational Research Association, Toronto, Canada.

Leinhardt, G. (1978, March). *Exploratory data analysis*. Training session presented at the annual meeting of the American Sociological Association, San Francisco, and at the annual meeting of the American Educational Research Association, Toronto, Canada.

Seewald, A. M., Leinhardt, G., & Engel, M. (1977). *Learning what's taught: Sex differences in instruction*. Presented at the annual meeting of the American Educational Research Association, New York.

Cooley, W. W., Leinhardt, G., & McGrail, J. (1976). *How to identify effective teaching*. Presented at the Workshop Exploring Qualitative/Quantitative Research Methodologies in Education, sponsored by the Far West Laboratory for Educational Research and Development in cooperation with the National Institute of Education and the Council on Anthropology and Education, Monterey CA.

Leinhardt, G. (1975). *Evaluation of the educational process in individualized instruction: Third year report*. Presented at annual meeting of the American Educational Research Association, Washington, DC.

Leinhardt, G. (1975). *A strategy for program evaluation*. Presented at the annual meeting of the American Sociological Association, San Francisco.

Leinhardt, G. (1974). *Evaluation of the implementation of a program of adaptive education at the second grade (1972-1973)*. Presented at the annual meeting of the American Educational Research Association, Chicago IL.

Leinhardt, G. (1973). *Observation as a tool for the evaluation of implementation*. Presented at the annual meeting of the American Educational Research Association, New Orleans.

Colantoni, C., Davis, O. A., Leinhardt, G., & Leinhardt, S. (1973). *Operational accountability*. Presented at the annual meeting of the American Educational Research Association, New Orleans.

Leinhardt, G. (1971). *A training program for selected teacher function*. Presented at the annual meeting of the American Educational Research Association, New York.

Theses:

The Boojum of evaluation: Implementation, some measures. Unpublished doctoral dissertation, University of Pittsburgh, 1972.

The comprehensive school: Meeting the aims of urban education. Unpublished master's thesis, University of Chicago, 1968.

Peer Review:

Review of Educational Research, editor (2009-2012)

Handbook of research on teaching (4th ed.), editorial board

Cognition and Instruction, editorial board

Educational Assessment, editorial board

Teaching and Teacher Education, editorial board

American Educational Research Journal

Journal of Research in Mathematics Education

Committee Service:

Member (2004-2005) Joint Department of Instruction and Learning Search Committee

Member (2003-2005), Committee to Select Distinguished Contributors to Educational Research, American Educational Research Association.

Chair, (1998-2004), Doctoral Task Force Committee, Department of Instruction and Learning, University of Pittsburgh School of Education.

Member (2001-2003), Palmer O. Johnson Memorial Award Committee, American Educational Research Association.

Chair (2000-2001), Joint Position Search Committee, LRDC, University of Pittsburgh.

Member (1999-2000), Dean Search Committee, School of Education, University of Pittsburgh.

Member (1998-1999), Educators/Pittsburgh Image and Information Resource Advisory Board.

Member (1998-1999), National Academy of Education Panel on Strengthening the Capacity for Research to Contribute to Educational Practice and Public Policy.

Member (1997), University of Pittsburgh Internal Review Board for the English Department.

Member (1996-1998), American Educational Research Association Nominating Committee.

Member (1995), National Advisory Board, Teaching Excellence Advancing Mathematics and Science (TEAMS) Professional Development Community Project.

Member (1991-1996), Teacher Advisory Board to the Technical Analysis Group, National Board for Professional Teaching Standards.

Member (1994), National Advisory Committee, National Board of Professional Teaching Standards' Assessment Development Laboratory for social studies-history teaching, UCLA.

Member (1994-1996), Design and Analysis Committee, National Assessment of Educational Progress.

Member (1992-1994), Palmer O. Johnson Memorial Award Committee, American Educational Research Association.

Assistant Chair (1992), Division K, Section 5: Teaching and teacher education in mathematics and science instruction -- content knowledge, curriculum tasks, and instructional practice. 1993 meeting of the American Educational Research Association.

Member (1989-1990), Committee to Select the Best Paper for Division C of the American Educational Research Association.

Chair (1988-1990) and member (1987-1990), Publications Committee, American Educational Research Association.

Chair (1983), Outstanding Book Award Committee, American Educational Research Association.

Founder and first Chair (1983), Special Interest Group on Teacher and Student Cognitions, American Educational Research Association.

Chair (1995-1997), Peer Evaluation of Teaching Committee, Department of Instruction and Learning, University of Pittsburgh.

Member (1992-), Academic Affairs/Executive Committee, Department of Instruction and Learning, School of Education, University of Pittsburgh.

Member (1993-1995), Promotion and Tenure Committee, Department of Instruction and Learning, University of Pittsburgh.

Member, (1995-1996), Social Studies Search Committee, Department of Instruction and Learning, University of Pittsburgh.

Member (1994-1995), LRDC/DIL Search Committee, University of Pittsburgh.

Member (1994-1995), LRDC/Psychology Department Search Committee, University of Pittsburgh.

Co-chair (1989-1990), member (1988-89), Faculty Development and Compensation Committee, School of Education, University of Pittsburgh.

Member (1988-1989), Fund for Improvement of Post Secondary Education Committee, School of Education, University of Pittsburgh.

Chair (1993), elected member (1978-1993), Executive Committee, Learning Research and Development Center, University of Pittsburgh.

Chair and member (1970-1978), Publications Committee, Learning Research and Development Center, University of Pittsburgh.

Consulting:

River Museum of Pittsburgh, Planning Board, Summer 2004

African American Cultural Center, Planning Committee 2003-2005

MetroMath, TLC Rutgers University, Advisory Board member 2003-2005

Classroom Inc., Advisory Board Member, 2000.

American Federation of Teachers, Evaluation of the ER & D Network, 1996.

Visiting Scholar, Centre for Mathematics and Science Education, Queensland University of Technology, Australia, July-August, 1994.

California State Department of Education, Special Consultant on Student Assessment, 1990.

Task Force on Assessment, Ford Foundation's QUASAR Project, LRDC, 1989-1990.

Committee on Evaluation, Ford Foundation's QUASAR Project, LRDC, 1989-1990.

State of Connecticut Department of Education, Special Consultant on Teacher Assessment, 1986-1992.

Carnegie Commission Teacher Assessment Project, Stanford University, Director, Math Assessment, 1986-1988.

Spencer Grant, University of Tucson, advisor to a study of novice, expert, and postulant teachers. November, 1985.

National Academy of Science, National Research Council Conference on Teacher Quality in Science and Mathematics Education, Washington, DC, June, 1985.

Teacher Assessment Instrument project, University of North Carolina, reviewer, 1983.

North Hampton Public Schools, Springfield MA, Ability Grouping Study, August 1980.

Ford Foundation, BP3K, Indonesia, and Institute of Rural Management, India, 1979-1980.

National Institute of Education, 1974, 1978, 1979.

Center for Child Guidance, 1977.

Quantitative Methods for Public Managers, HUD, evaluator, 1976.

KDKA-TV, consultant on the training of monitors for: *Reflections in a fun-house mirror. A report of the Women's Advisory Council to KDKA-TV*, 1975.

Carnegie Mellon University, development of observational schedules for a project entitled "Organization and Management of Hospital Patient Unit", 1974.

Baltimore City Schools, Model Early Childhood Learning Center consultant on classroom management and scheduling, and on teacher training, 1970.

Areas of Interest:

- Online instruction and open learning environments
- Improvement of undergraduate education
- Museum learning
- Teacher and student cognition in subject matter
- Observational instrument construction, data collection, and validation
- Innovative assessment and program evaluation