

Rogers P. Hall

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### Education

1990 Ph.D. in Information and Computer Science, University of California, Irvine.  
 1983 M.S. in Information and Computer Science, University of California, Irvine.  
 1978 M.A. in Behavioral Sciences, University of Houston at Clear Lake City, Texas.  
 1976 B.A. Summa Cum Laude in Behavioral Sciences, University of Houston at Clear Lake City, Texas.

### Employment

2011 – present Chair, Department of Teaching and Learning, Peabody College of Vanderbilt University.  
 2002 – present Professor of Education, Department of Teaching and Learning, Peabody College of Vanderbilt University.  
 2006 – 2007 Fellow at the Center for Advanced Study in the Behavioral Sciences and Visiting Scholar, Stanford University, Palo Alto, CA.  
 1999 – 2001 Associate Dean for Academic Affairs in the Graduate School of Education, University of California, Berkeley.  
 1998 – 2002 Associate Professor in Cognition and Development, Social and Cultural Studies, and SESAME in the Graduate School of Education, University of California, Berkeley. Faculty Affiliate in the Energy Resources Group.  
 1992 – 1998 Assistant Professor in Cognition and Development, Social and Cultural Studies, and SESAME in the Graduate School of Education, University of California, Berkeley.  
 1992 – 1996 Research Scientist, Institute for Research on Learning, Palo Alto, California.  
 1990 – 1992 Postdoctoral Fellow in the James S. McDonnell Foundation Program in Cognitive Studies for Educational Practice, Stanford University School of Education and the Institute for Research on Learning.  
 Summer, 1986 Visiting Scholar at the Cognition and Language Laboratory (Dedre Gentner), Department of Psychology, University of Illinois, Champaign, Illinois.  
 1981 – 1990 Lecturer, Teaching Assistant, and Research Assistant in Information and Computer Science, University of California, Irvine.  
 1976 – 1981 Research Associate, Department of Psychiatry and Behavioral Sciences, University of Texas Medical Branch, Galveston, Texas.

### Articles

Hall, R. & Ma, J. (in press). Learning a part together: Ensemble learning and infrastructure in a competitive high school marching band. *Instructional Science*.

- Hall, R. & Jurow, A. S. (2015). Changing Concepts in Activity: Descriptive and Design Studies of Consequential Learning in Conceptual Practices, *Educational Psychologist*, 50:3, 173-189.
- Taylor, K. H. & Hall, R. (2013). Counter-mapping the neighborhood on bicycles: Mobilizing youth to reimagine the city. *Technology, Knowledge and Learning*, 18, 65-93.
- Hall, R. & Horn, I. S. (2012). Talk and conceptual change at work: Adequate representation and epistemic stance in a comparative analysis of statistical consulting and teacher workgroups. *Mind, Culture and Activity*, 19, 240-258.
- Hall, R. & Nemirovsky, R. (2012). Modalities of body engagement in mathematical activity and learning. Special issue on Embodied Mathematical Cognition, *Journal of the Learning Sciences*, 21, 207-215.
- Derry, S. J., Pea, R., Barron, B., Engle, R., Erickson, F., Goldman, R., Hall, R., Koschmann, T., Lemke, J., Sherin, M., Sherin, B (2010). Conducting video research in the learning sciences: Guidance on selection, analysis, technology, and ethics. *Journal of the Learning Sciences*, 19, 1-51.
- Jurow, S., Hall, R. & Ma, J. (2008). Expanding the disciplinary expertise of a middle school mathematics classroom: Re-contextualizing student models in conversations with visiting scientists. *Journal of the Learning Sciences*, 17(3), 338-380.
- Hall, R., Wright, K. & Wieckert, K. (2007). Interactive and historical processes of distributing statistical concepts through work organization. *Mind, Culture, and Activity*, 14(1&2), 103-127.
- Hall, R. (2005). Reconstructing the learning sciences. *Journal of the Learning Sciences*, 14(1), 139-155.
- Hall, R. (2004). Attaching self and others to social categories as an interactional and historical achievement. *Human Development*, 47(6), 354-360.
- Hall, R., Stevens, R., & Torralba, A. (2002). Disrupting representational infrastructure in conversations across disciplines. *Mind, Culture, and Activity*, 9(3), 179-210.
- Hall, R. (2001). Schedules of practical work for the analysis of case studies of learning and development. *Journal of the Learning Sciences*, 10(1&2), 203-222.
- Hall, R. (2001). Cultural artifacts, self regulation, and learning: Commentary on Neuman's "Can the Baron von Munchhausen phenomenon be solved?" *Mind, Culture & Activity* 8(1), 98-108.
- Hall, R. (1999). The organization and development of discursive practices for "having a theory". *Discourse Processes*, 27(2), 187-218.
- Greeno, J.G. & Middle School Mathematics through Applications Project Group (1998). The situativity of knowing, learning, and research. *American Psychologist*, 53, 5-26.
- Greeno, J. G. & Hall, R. P. (1997, January). Practicing representation: learning with and about representational forms. *Phi Delta Kappan*, 361-367.
- Stevens, R. & Hall, R. (1997). Seeing the Tornado: how VideoTraces mediate visitor understandings of (natural?) spectacles in a science museum. *Science Education*, 81(6), 735-747.

- Hall, R. (1996). Representation as shared activity: Situated cognition and Dewey's cartography of experience. *Journal of the Learning Sciences*, 5(3), 209–238.
- Hall, R.P., Knudsen, J., & Greeno, J.G. (1996). A case study of systemic attributes of assessment technologies. *Educational Assessment*, 3(4), 315–361.
- Hall, R. (1995). Exploring design-oriented mathematical practices in school and work settings. *Communications of the ACM*, September, p. 62.
- Hall, R., Kibler, D., Wenger, E., & Truxaw, C. (1989). Exploring the episodic structure of algebra story problem solving. *Cognition and Instruction*, 6(3), 223- 283.
- Hall R. (1989). Computational approaches to analogical reasoning: a comparative analysis. *Artificial Intelligence*, 39,39–120.
- Hall R.P. & Kibler D. (1985). Differing methodological perspectives in artificial intelligence research. *Artificial Intelligence Magazine*, 6(3), Fall, 166-178.
- Gentry, W.D., Chesney, A.P., Kennedy, C.D., Hall, R. P., Gary, H.E. & Harburg, E. (1983). The relation of demographic attributes and habitual anger-coping styles. *The Journal of Social Psychology*, 121, 45-50.
- Chesney, A.P., Chavira, J.A., Hall, R.P. & Gary, H.G. (1982). Barriers to medical care of Mexican-Americans: The role of social class, acculturation, and social isolation. *Medical Care*, 20(9), 883-891.
- Rose R.M., Jenkins C.D., Hurst M., Livingston L. & Hall R.P. (1981). Endocrine activity in air traffic controllers at work. I. Characterization of cortisol and growth hormone levels during the day. *Psychoneuroendocrinology*, 7(2,3), 101-112.
- Rose R.M., Jenkins C.D., Hurst M., Herd J.A. & Hall R. (1981). Endocrine activity in air traffic controllers at work. II. Biological, psychological and work correlates. *Psychoneuroendocrinology*, 7(2,3), 113-124.
- Rose R.M., Jenkins C.D., Hurst M., Kreger B.E., Barrett J. & Hall R. (1981). Endocrine activity in air traffic controllers at work. III. Relationship to physical and psychiatric morbidity. *Psychoneuroendocrinology*, 7(2,3), 125-134.

### **Books, Monographs, and Reviews**

- Hall, R. (2002, October). Review of Radical Equations: Math Literacy and Civil Rights and Mathematics Success and Failure Among African-American Youth: The Roles of Sociohistorical Context, Community Forces, School Influence, and Individual Agency. *Educational Researcher*, 31, 34-40.
- Hall, R., Miyake, N., and Enyedy, N. (1997) *Proceedings of CSCL '97: The Second International Conference on Computer Support for Collaborative Learning*. December 10-14, 1997. University of Toronto/Ontario Institute for Studies in Education (OISE). Mahwah, NJ: Lawrence Erlbaum and Associates.
- Koschman, T., Hall, R. & Miyake, N. (2001). *CSCL II: Carrying forward the conversation*. Mahwah, NJ: Lawrence Erlbaum and Associates.
- Hall R. (1990). *Making mathematics on paper: constructing representations of stories about related linear functions*. Doctoral dissertation, Technical Report 90-17, Department

of Information and Computer Science, University of California, Irvine. Monograph 90-0002, Institute for Research on Learning.

### **Papers in Conference Proceedings**

- Shapiro, R. R. & Hall, R. (2017, June). Making engagement visible: The development and use of Mondrian Transcripts in a museum. In B. K. Smith, M. Borge, K. Y. Lim & E. Mercier (Eds.) Proceedings of the 12th International Conference on Computer Supported Collaborative Learning, Philadelphia, PA.
- Shapiro, R. R. & Hall, R. (2017, May). Interaction geography in a museum. In S Fussell & G. Mark (Eds.), Proceedings of the ACM CHI Conference on Human Factors in Computing Systems, Denver, CO.
- Stevens, R. & Hall, R. (2014). Yipee KAIA and other cowboy expressions of joy. Paper in a symposium titled, "Is the sum greater than its parts? Reflections on the agenda of integrating analyses of cognition and learning" (M. Levin & O. Parnafes, Co-chairs), International Conference of the Learning Sciences.
- Ma, J. Y., Hall, R. & Leander, K. M. (2010, June). Shifting between person, structure and settlement scales in anthropological fieldwork. In Hall, R. (Symposium Chair). Scaling practices of spatial analysis and modeling. International Conference of the Learning Sciences.
- Taylor, K., Hall, R. & Leander, K. M. (2010, June). Changing the structure of planning participation by moving across scales. In Hall, R. (Symposium Chair). Scaling practices of spatial analysis and modeling. International Conference of the Learning Sciences.
- Hall, R., Lehrer, R., Lucas, D. & Schauble, L. (2004). Of grids and jars: A comparative analysis of representational infrastructure and learning opportunities in middle school and professional science. In Y. Kafai, W. Sandoval, N. Enyedy, A. Nixon & F. Herrera (Eds.), *Embracing diversity in the learning sciences: The Proceedings of the Sixth Fifth International Conference of the Learning Sciences (ICLS)*, 238-245.
- Banach, M., Brown, N., Carroll, C., Gillespie, N, Glaser, D, Hall, R., & Ryu, A. (2002). Constituting "missing objects" in learning conversations. In P. Bell, R. Stevens, & T. Satwicz (Eds.), *Keeping Learning Complex: The Proceedings of the Fifth International Conference of the Learning Sciences (ICLS)*, 606-610.
- Hall, R. (2000, August). Work at the interface between representing and represented worlds in middle school mathematics design projects. In L.R. Gleitman and A.K. Joshi (Eds.), *Proceedings of Twenty-Second Annual Conference of the Cognitive Science Society* (pp. 675-680). Mahwah, NJ: Lawrence Erlbaum Associates.
- Hall, R. & Stevens, R. (1996) Teaching/learning events in the workplace: a comparative analysis of their organizational and interactional structure. In G. W. Cottrell (Ed.), *Proceedings of the Eighteenth Annual Conference of the Cognitive Science Society* (pp. 160–165). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Hall, R. (1994). Visual reasoning in instruction. N. H. Narayan (Chair) Symposium on Visual reasoning in discovery, instruction and problem solving. In A. Ram and K. Eiselt (Eds.), *Proceedings of the Sixteenth Annual Conference of the Cognitive Science Society* (pp. 980-984). Hillsdale, NJ: Lawrence Erlbaum and Associates, Publishers.

- Hall R. (1989). Qualitative diagrams: supporting the construction of algebraic representations in applied problem solving. In D. Bierman, J. Breuker & J. Sandburg (Eds.), *Artificial intelligence and education, Proceedings of the 4th International Conference on AI and Education* (116–122). Amsterdam, Netherlands: IOS.
- Hall R. (1987). When trains become hoses: justifying problem comparisons in problem solving. *Third International Conference on Artificial Intelligence and Education*, Learning Research and Development Center, Pittsburgh, Pennsylvania.
- Kibler D. & Hall R.P. (1985) A model of acquiring problem solving expertise. *Proceedings of the Seventh Annual Conference of the Cognitive Science Society*, 303–307.

### Book Chapters

- Hall, R., Shapiro, B. & Space, Learning and Mobility (SLaM) Lab. (in press). Back in the Day: A Walking Tour of Historic Jefferson Street. J. Fraser, L. Williams & A. Thurber (Eds.), *A People's Guide to Nashville*. Oakland, CA: University of California Press. (see: <https://my.vanderbilt.edu/peoplesguidenashville/>)
- Hall, R. & Stevens, R. (2015). Interaction analysis approaches to knowledge in use. In A. A. diSessa, M. Levin, & J. S. Brown (Eds.), *Knowledge and interaction: A synthetic agenda for the learning sciences* (pp. 72-108). New York, NY: Routledge.
- Hall, R., Nemirovsky, R., Ma, J. & Kelton, M. (2015). Towards a generous\* discussion of the interplay between natural descriptive and hidden machinery orientations in knowledge and interaction analysis. In A. A. diSessa, M. Levin, & J. S. Brown (Eds.), *Knowledge and interaction: A synthetic agenda for the learning sciences* (pp. 496-550). New York, NY: Routledge.
- Hall, R., Ma, J. Y. & Nemirovsky, R. (2014). Re-scaling bodies in/as representational instruments in GPS drawing. In V. Lee & M. Linn (Editors), *Technology and the Body: Perspectives from the Learning Sciences*, (pp. 112-131). New York, NY: Routledge.
- Hall, R. (2011). Cultural forms, agency, and the discovery of invention in classroom research on learning and teaching. In T. Koschmann (Ed.), *Theories of learning and studies of instructional practice*, (pp. 359-383). New York: Springer.
- Hall, R., Wieckert, K. & Wright, K. (2010). How does cognition get distributed? Case studies of making concepts general in technical and scientific work. In M. Banich & D. Caccamise (Eds.) *Generalization of knowledge: Multidisciplinary perspectives*, (pp. 225-246). New York: Psychology Press.
- Hall, R. & Greeno, J. G. (2008). Conceptual learning. T. Good (Ed.), *21st Century Education: A Reference Handbook*, (pp. 212-221). Sage.
- Hall, R. (2007, July). Strategies for video recording: Fast, cheap, and (mostly) in control. In S. Derry (Ed.), *Guidelines for Video Research in Education: Recommendations from an Expert Panel* (pp. 4-14). NSF White Paper, available from Data Research and Development Center (<http://drdc.uchicago.edu/what/video-research-guidelines.pdf>).
- Goldstein, B.E. & Hall, R. (2007). Modeling without end: Conflict across organizational and disciplinary boundaries in habitat conservation planning. In R. Lesh, E. Hamilton & J. Kaput (Eds.), *Foundations for the future in mathematics education* (pp. 57-76). Mahwah, NJ: Lawrence Erlbaum Publishers.

- Hall, R., Stevens, R., & Torralba, A. (2005). Disrupting representational infrastructure in conversations across disciplines. In S. J. Derry, C. D. Schunn & M. A. Gernsbacher (Eds.), *Interdisciplinary collaboration: An emerging cognitive science* (pp. 123-166). Mahwah, NJ: Erlbaum. Earlier version appears in *Mind, Culture and Activity*, 2002.
- Greeno, J. G., Hall, R., Sommerfeld, M., Stenning, K. & Weibe, M. (2002). Coordinating mathematical with biological multiplication. Conceptual learning as the development of heterogeneous representation systems. In M. Baker, P. Brna, K. Stenning & A. Tiberghien (Eds.) *The role of communication in learning to model* (pp. 3-48). Mahwah, NJ: Lawrence Erlbaum Publishers.
- Hall, R. (2001). Collaboration and learning as contingent responses to designed environments. In T. Koschmann, R. Hall, and N. Miyake (Eds.), *Computer support for collaborative learning II: Continuing the conversation* (pp. 185-196). Mahwah, NJ: Lawrence Erlbaum and Associates.
- Hall, R. (2000). Video recording as theory. In A. Kelley & R. Lesh (Eds.) *Handbook of Research Design in Mathematics and Science Education* (pp. 647-664). Mahwah, NJ: Lawrence Erlbaum.
- Hall, R. (1998). Following mathematical practices in design-oriented work. In C. Hoyles, C. Morgan, & G. Woodhouse (Eds.), *Rethinking the Mathematics Curriculum, Volume 10, Studies in Mathematics Education Series* (pp. 29-47). London: Falmer Press.
- Hall, R. & Rubin, A. (1998). ... there's five little notches in here: Dilemmas in teaching and learning the conventional structure of rate. In J. Greeno and S.G. Goldman (Eds.), *Thinking practices in mathematics and science learning* (pp. 189-235). Mahwah, NJ: Lawrence Erlbaum and Associates.
- Stevens, R. & Hall, R. (1998). Disciplined perception: learning to see in technoscience. In M. Lampert and M. Blunk (Eds.), *Talking mathematics in school: Studies of teaching and learning* (pp. 107-149). Cambridge, UK: Cambridge University Press.
- Hall, R. (1995). Realism(s) for learning algebra. In C. B. LaCampagne, W. Blair, & J. Kaput (Eds.), *The Algebra Initiative Colloquium*. (Volume 2, pp. 33-51) Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- Hall, R. & Stevens, R. (1995). Making space: a comparison of mathematical work in school and professional design practices. In S.L. Star (Ed.), *The cultures of computing* (118-145). London: Basil Blackwell.

### **Working Papers (under review and in progress)**

- Hall, R. & Taylor, K. H. (in progress). Making places: Coincident boundaries and stories told thus far in remembering/forgetting the Music City.
- Hall, R. & Kahn, J. (in progress). Foraging and dissecting STEM arguments in public media.
- Hall, R. & Shapiro, B. (in progress). Learning through engagement and personal curation in cultural heritage gallery spaces.
- Hall, R. & Spatial Learning and Mobility Group (in progress). Learning and development of new practices of spatial thinking.

**Non-refereed Technical Reports, Curriculum Materials, etc.**

- Hall, R. & Nemirovsky, R. (2010). Modal engagements as the conceptual fabric of embodied mathematical cognition. <http://www.sci.sdsu.edu/tlcm/>
- Vanderbilt SLAM (2010). Scale and modality in spatial analysis and modeling: A comparative analysis of professional practices. White paper for 2nd Tangibility Theory Workshop, San Diego, CA.
- Hall, R. (1999). Case studies of math at work: exploring design-oriented mathematical practices in school and work settings. Final report to the National Science (RED-9553648).
- Hall, R. (1995). Exploring mathematical practices in design-oriented work. Video case and accompanying documentation. Discussion piece for an AERA session on "Assessing Cases of Algebraic Reasoning." San Francisco, CA.
- Middle School Mathematics through Applications Project (1995). The Antarctica Project, LifeLines, Guppies, and Codes Inc. Curriculum units developed at the Institute for Research on Learning and Stanford University.
- Dworkin, L. & Hall, R. (1994). "The average upper grader": Assessing mathematical understanding using an open-ended group task. Video case and viewing guide. Math TASKS Project, San Francisco State University.
- Hall, R., Knudsen, J., & Greeno, J. G. (1993). Practice and technology in the participatory design of assessment systems. Technical Report, Institute for Research on Learning.
- Hall, R. & Lewis, J. (1993). The participatory design of assessment systems. Video CaseBook Prototype, Institute for Research on Learning.
- Hall R.P., Falkenhainer B., Flann N., Hampson S., Reinke R., Shrager J., Sims H. & Tadepalli P. (1987). A review of the fourth international workshop on machine learning. *Machine Learning*, 2, 173-190.
- Hall R.P. (1986). Understanding analogical reasoning: viewpoints from psychology and related disciplines. Technical Report 86-10, Department of Information and Computer Science, University of California, Irvine.
- Hall R., Wenger E., Kibler D., & Langley P. (1985). The effect of multiple knowledge sources on learning and teaching. Technical Report 85-11, Department of Information and Computer Science, University of California, Irvine.

**Presentations/Workshops at Professional Meetings**

- Hall, R. (2017, June). Location-Aware Technologies and New Genre of Learning on the Move (LoM). Moderated discussion at the 47th Annual Meeting of the Jean Piaget Society, San Francisco.
- Vogelstein, L., Hall, R. & Brady, C. (2017, June). Embodied Mathematical Technologies: Making Sense of Ensemble-Based Embodied Mathematical Thinking and Learning. Paper at the 47th Annual Meeting of the Jean Piaget Society, San Francisco.

- Kahn, J. & Hall, R. (2017). At the intersection of self and society: Learning and becoming family storytellers with big data. Paper at the 47th Annual Meeting of the Jean Piaget Society, San Francisco.
- Hall, R. & Space, Learning and Mobility Lab (2017, March). Placing conceptual practices in motion: Digital supports for learning on the move. Invited presentation for "Digital Conversations: A salon for scrutinizing new digital scholarship on campus and beyond." The Wond'ry, Vanderbilt University.
- Hall, R. (2016, November). Bodies and ensembles in published transcripts: Snakes and rocks 24/7. Invited paper and presentation at Spencer Foundation workshop, "Learning how to look and listen: Building capacity for video-based transcription and analysis in social and educational research" at Arizona State University (F. Erickson and A. Artiles).
- Hall, R. (2016, August) Data science is an unfinished project. Workshop on Youth Learning and Data Science, National Science Foundation, University of California, Berkeley.
- Hall, R. (2016, June). Learning by making places along the daily round. Invited Symposium at the 46<sup>th</sup> Annual Meeting of the Jean Piaget Society. Manuscript under development for a proposed special issue of *Cognitive Development*.
- Hall, R. (2016, April). Re-inscribing the city in design studies of critical STEAM conceptual practice. Symposium at the Annual Meetings of the American Educational Research Association, Washington, D.C.
- Kahn, J., Hall, R. & Pearman, A. (2016, April). Telling the city with big data. Symposium paper at the Annual Meetings of the American Educational Research Association, Washington, D.C.
- Shapiro, B. & Hall, R. (2016, April). Engagement and personal curation in interest driven learning environments. Symposium paper at the Annual Meetings of the American Educational Research Association, Washington, D.C.
- Taylor, K. H., Hall, R. & Heiberger, L. (2016, April). Remembering/forgetting the Music City: Place-making with diverse publics. Symposium paper at the Annual Meetings of the American Educational Research Association, Washington, D.C.
- Heiberger, L. & Hall, R. (2016, April). Place-making through reenactment: From archives to urban spaces. Symposium paper at the Annual Meetings of the American Educational Research Association, Washington, D.C.
- Hall, R. (2015, May). Standardizing knowledge and learning across settings. Invited keynote at a conference, *Common Core State Standards and Research in the Learning Sciences*, hosted by the Research in Cognition & Mathematics Education (RCME) training grant at UC Berkeley (funded by the Institute of Education Sciences).
- Hall, R. & Leander, K. (2015, April). *Curation of the City as Everyday Assemblage*. Symposium at the annual meetings of the Association of American Geographers, Chicago, IL.
- Lave, J. & Hall, R. (2014, June). Talking about learning in changing social practices. Invited keynote conversation (new format) at the 2014 International Conference of the Learning Sciences.



- Hall, R. (2014, May). Research in the Spatial Learning and Mobility (SLaM) Lab. Seminar and workshop presented at the *Mellon Institute in Digital and Public Humanities for Early Career Scholars*. Curb Center for Innovation, Vanderbilt University.
- Kahn, J., Hall, R. & Phillips, N. C. (2014, April). Horse racing global development: Dissecting and remixing graph arguments using motion charts and public data about global wealth and health. Paper in an AERA symposium on “Distributing, Learning, and Making STEM Arguments in Public Media” (Rogers Hall, Joseph Polman & Engida Gebre, Co-Chairs).
- Hall, R., Owens, D. & Leander, K. (2013). Designing spaces for learning: What’s next? Workshop on the Vanderbilt campus with participants from local community organizations (museums, libraries, schools, maker spaces), the Nashville Mayor’s Office of Innovation, Vanderbilt faculty from professional and A&S Schools, and visiting faculty from the School of Architecture at the University of Melbourne. With support from Vanderbilt International Office, The Curb Center, and the Dean of Vanderbilt Libraries.
- Torralba, J. A. & Hall, R. (2012, October). Displacing scientific concepts and practices: Implications for the development of things, people and disciplines. Paper presented at the annual meetings of the Society for the Social Studies of Science, Copenhagen, Denmark.
- Hall, R., Nemirovsky, R., Ma, J. & Kelton, M. (2012, April). Towards a generous\* discussion of the interplay between natural descriptive and hidden machinery orientations in knowledge and interaction analysis. Paper in AERA symposium, Integrating Issues of Knowledge and Interaction in Analyses of Cognition and Learning.
- Hall, R. & Wieckert, K. (2011, September). Serving and abstracting in the boundary spanning work of statistical consultants. Paper presented at NSF workshop, Celebration of Leigh Star’s Intellectual Legacy, San Francisco, CA.
- Hall, R. & Ma, J. (2011). Learning a part together: Participant trajectories with ensemble spatial forms in a high school marching band. Paper in a symposium on Difference, Culture and Distribution in Mathematics and Science Learning, at the Annual Meetings of the Jean Piaget Society, Berkeley, CA.
- Hall, R. & Ma, J.Y. (2011, February). “You know, it was a pain in the ass for those people.” Embodied measurements of change in archeological practices of spatial analysis and modeling. Paper presented at the 32nd Annual Ethnography in Education Research Forum, University of Pennsylvania.
- Headrick Taylor, K. & Hall, R. (2011, February). Forming publics: Negotiating what develops at the interface of participatory planning. Paper presented at the 32nd Annual Ethnography in Education Research Forum, University of Pennsylvania.
- Ma, J.Y. & Hall, R. (2011, February). From dots to chunks: Embodied learning and ensemble performance in a high school marching band. Paper presented at the 32nd Annual Ethnography in Education Research Forum, University of Pennsylvania.
- Hall, R. (2010, November). Distributing cognition in talk across disciplines. Invited talk at NSF Workshop on Interdisciplinary Collaboration in Innovative Science and Engineering Fields, Boston College.

- Hall, R. (2010, June). Placing the body in modeling practices. Invited Plenary Paper, International Conference of the Learning Sciences.
- Hall, R. & Leander, K. M. (2010, April). Comparative analyses of spatial thinking in diverse professional practices. In R. Hall & K. Leander (Symposium Leaders), Learning and development of new practices of spatial thinking. Annual Meetings of the American Educational Research Association. Denver, CO.
- Ma, J. Y., Hall, R. & Leander, K. M. (2010, April). Learning to see and to show: From mundane to innovative modeling in physical anthropology. In R. Hall & K. Leander (Symposium Leaders), Learning and development of new practices of spatial thinking. Annual Meetings of the American Educational Research Association. Denver, CO.
- Taylor, K. & Hall, R. (2010, April). Getting into the map: How the public learns to take place in urban planning. In R. Hall & K. Leander (Symposium Leaders), Learning and development of new practices of spatial thinking. Annual Meetings of the American Educational Research Association. Denver, CO.
- Hall, R. & Leander, K. (2010, April). Comparative analysis of learning spatial analysis across professions. Annual Meetings of the Association of American Geographers. Washington, D.C.
- Hall, R. & Leander, K. (2008, September). Research on learning in and about space: Distributional and place-based approaches. In R. Hall & K. Leander (Symposium Leaders), Place, mobility, embodied action and learning. International Society for Cultural and Activity Research, San Diego, CA.
- Hall, R. & Nemirovsky, R. (2008, September). Walking geometry: Using location-aware technologies to change the scale and modality of mathematical understanding. In R. Hall & K. Leander (Symposium Leaders), Place, mobility, embodied action and learning. International Society for Cultural and Activity Research, San Diego, CA.
- Hall, R., Wright, K. & Wieckert, K. (2007, July). Learning in activities that cross disciplinary boundaries. In N. Miyake & R. Pea (Symposium Chairs), Redefining learning goals of very long-term learning across many different fields of activity. Computer Supported Collaborative Learning, New Brunswick, NJ.
- Hall, R. (2007, April). Change in discourse about research on diversity in mathematics education through doctoral research training in a multi-year national center. American Educational Research Association, Chicago, IL.
- Hall, R., Rubel, L. & Ryu, A. (2007, April). Developing technical practices for video case analysis and their implications for research on diversity in mathematics education. American Educational Research Association, Chicago, IL.
- Hall, R., Wieckert, K. & Wright, K. (2007, April). The body as a plastic resource during interactive assembly of statistical models and arguments. American Educational Research Association, Chicago, IL.
- Hall, R. (2007, April). Re-mediating research on STEM learning and teaching through NSF investment in mathematics and science partnerships. American Educational Research Association, Chicago, IL.

- Hall, R. (2006). Transfer as purposeful activity across settings. Invited talk, NSF Science of Learning Centers Workshop on Transfer, Arlington, VA.
- Gresalfi, M. & Hall, R. (2006). Learning by problematizing situations and changing participation in collective activity. Invited talk, Festschrift for James Greeno, 18th Annual Convention, Association for Psychological Science, New York.
- Hall, R. (2006). How does cognition get distributed? Case studies of making concepts general in technical and scientific work. Invited talk, Institute of Cognitive Science, University of Colorado, Boulder.
- Hall, R. & Jurow, S. (2006). Hybrid interactional practices: Expanding the disciplinary expertise of a middle school mathematics classroom. Paper presented at the annual meetings of the American Educational Research Association, San Francisco, California.
- Hall, R., Wieckert, K. & Wright, K. (2006). Learning, teaching and generalizing statistical concepts as statisticians consult across client domains. American Educational Research Association, San Francisco, California.
- Hall, R. (2004, March). How are statistical concepts made general? Statistical consulting as a laboratory for studying the social organization of generalization. Invited talk, International Seminar on Learning and Technology at Work, Institute of Education, London. <http://www.lonklab.ac.uk/kscope/ltw/seminar.htm>
- Hall, R. & Wieckert, K. (2004, April). Learning as the development of people and things, together. In K. Beach (Chair), Learning and Developing, and Participating Between School Community, and Work. Annual Meetings of the American Educational Research Association, San Diego, CA.
- Hall, R. (2004). Studies of disrupting representational infrastructure: Towards a theory of distributing cognition. Invited lecture, Georgia Institute of Technology, October 15, 2004. [http://www.cc.gatech.edu/gvu/streaming/archives\\_F04/CSC\\_10-15-04.html](http://www.cc.gatech.edu/gvu/streaming/archives_F04/CSC_10-15-04.html)
- Hall, R., Rubel, L., Ryu, A. & Erickson, F. (2004, February). Discourse change in research on diversity in mathematics education: Reformulation/recontextualization of case material during graduate training. The Fifteenth Annual Winter Conference on Discourse, Text and Cognition. January 16-19, Jackson Hole, WY.
- Hall, R. & Erickson, F. (2004). Design, capture, and analysis of video recordings in studies of learning and teaching. NSF sponsored workshop for junior faculty. The Sixth International Conference of the Learning Sciences. June 22-26, University of California, Los Angeles.
- Hall, R., Ryu, A., Rubel, L., Deneroff, V. & Erickson, F. (2003). Language change in graduate training in mathematics education through multi-site analysis of a classroom corpus. Paper presented at the annual meetings of the American Educational Research Association, Chicago, IL.
- Hall, R. (2003). When is a case? Paper presented at the annual meetings of the American Educational Research Association, Chicago, IL.
- Koschmann, T., Hall, R., Stahl, G., & Stevens, R. (2002). Studying learning in interaction. Fifth International Conference of the Learning Sciences (ICLS), Seattle, WA.

- Hall, R. (2002). Doing microanalytic studies across institutional boundaries. Computer Support for Collaborative Learning (CSCL). Boulder, CO.
- Goldstein, B. & Hall, R. (2001). The limits of organizational culture under stress in the construction of an endangered species habitat distribution model. Annual meetings of the Society for the Social Studies of Science. Cambridge, MA.
- Hall, R. (2000). Distributing cognition: How to follow and make knowledge across disciplines. In S. Derry (Chair) Education as interdisciplinary process: Lessons from theory, research and wisdom of practice. Invited symposium at the American Educational Research Association Annual Meetings, New Orleans, LA.
- Hall, R. (1999, October). Logics of participation and scientists-in-the-making. G. Ottinger (Chair) Constituting relations between science studies and science education. Annual Meeting of the Society for the Social Studies of Science. San Diego, California, October 27-30, 1999.
- Hall, R. (1998, November). How to follow learning in the coordinated assembly of representational states. T. Koschmann (Chair) Six readings of a single text: a video analytic session (pp. 407-409). In S. Poltrock and J. Grudin (Eds.) Proceedings of Computer Supported Cooperative Work (CSCW '98). New York, NY: The Association for Computing Machinery.
- John, S., Torralba, T., & Hall, R. (1999). Comparing logics of participation: Working at the boundary between errors and findings in classroom and professional biology. Math-at-Work Project Working Paper. University of California, Berkeley. This paper was also presented M. Roth & R. Hall (Panel Chairs), "Of lizards, ants, and arthropods: Scientists' and middle school students' representations of nature." Panel at the American Educational Research Association Annual Meetings, Montreal, Canada, April, 1999.

### **Research Support**

- Capacity Building for Learning on the Move (2016-2017, \$50,000). Rogers Hall, Ananda Marin (UCLA) and Katherine Taylor (University of Washington, Seattle).
- Bridging Learning in Urban Extended Spaces 2.0 (2016-2018, \$500,000). Rogers Hall, David Owens, Andrew Hostetler & Douglas Fisher. NSF Cyberlearning.
- Bridging Learning in Urban Extended Spaces (2013-2016, \$300,000). Rogers Hall. NSF Cyberlearning.
- Spatial Design and Learning Environments (2012 to 2013, \$8,500). Rogers Hall and Kevin Leander. Vanderbilt International Office Grants Program.
- Tangibility for Teaching, Learning, and Communicating Mathematics (2008 to 2013, \$2,000,000). Ricardo Nemirovsky (PI), Rogers Hall, Kevin Leander, Mitchell Nathan, Martha Alibali (Co-PI's). NSF, REESE.
- Research on Embodied Mathematical Cognition, Technology and Learning (2005 to 2008, \$200,000). Rogers Hall (PI) and Ricardo Nemirovsky (Co-PI). NSF, Science of Learning Centers.

Collaboration and Trading among Higher Education Faculty in Mathematics and Science Partnerships (2004 to 2008, \$412,000). Subcontract to Brown University (Ken Wong, Co-PI) and COSMOS Corporation (Robert Yin, PI).

Constructing Data, Modeling Worlds: Collaborative Investigation of Statistical Reasoning (2004 to 2006, \$1,800,000). Rich Lehrer (PI), Rogers Hall, Leona Schauble, and Pat Thompson (Co-PI's). NSF ROLE.

Diversity in Mathematics Education: Building Infrastructure for learning and Teaching Mathematics with Understanding. (2001 to 2006, \$3,203,208). Rogers Hall (Co-PI, first year), Alan Schoenfeld, Geoffrey Saxe, Andy diSessa (Senior Investigators), UC Berkeley subcontract to Walter Secada (PI), University of Wisconsin, Madison.

Requirements analysis and design specification for digital media annotation in support of educational research and professional development (2000/2001, \$1000). University of California, Berkeley, Committee on Research.

Ordinary language resources and mathematical necessity (1998/1999, \$1000). University of California, Berkeley, Committee on Research.

Case studies of math at work: Exploring design-oriented mathematical practices in school and work settings (1995 to 1998, \$572,644). NSF/RTL RED-9553648.

### **Professional Activity and Honors**

Member of American Anthropological Association, American Educational Research Association, Cognitive Science Society, International Society of the Learning Sciences, National Council of Teachers of Mathematics, Society for the Social Studies of Science.

#### *Reviewing*

American Educational Research Association (AERA conference papers, Sylvia Scribner Award)

American Educational Research Journal

Applied Artificial Intelligence

Artificial Intelligence an International Journal

Cambridge University Press (book proposals and manuscripts)

Childhood

Cognition and Instruction (Editorial Board; Editor in Chief, 2012-2016)

Cognitive Science (journal and conference papers)

Computer Support for Collaborative Learning (Program Co-chair, 1997; Program Committee, 1999)

Discourse Processes

Human Development

Instructional Science

International Conference on the Learning Sciences

Israel Science Foundation (proposal reviews)

Journal of Experimental Child Psychology

Journal of the Learning Sciences (Associate Editor, 2004 to 2007)

Journal for Research on Mathematics Education

Linguistics and Education

Memory and Cognition

Mind, Culture and Activity

National Science Foundation (panel and ad hoc review: PAC, RTL, IERI, REESE, Cyberlearning, STS)  
 Review of Educational Research  
 Science  
 University of Pittsburgh Press (book proposals and manuscripts)

### *Honors and Fellowships*

Fellow of the American Educational Research Association (2014 – present)  
 Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford University (2007-2008)  
 Invited conference commemorating the 51st anniversary of the “Natural History of an Interview” working group (Gregory Bateson, Norman McQuown, Charles Hockett, Frieda Fromm-Reichman, Henry Brosin), Center for Advanced Studies in Behavioral Sciences, Palo Alto, CA (Frederick Erickson, Instigator in Chief and Giver of Gifts, February 2007)  
 Working group on Historical and Interpretive Approaches to Standards, Quantification, and Formal Representation, UC Humanities Research Institute (Leigh Star and Geoff Bowker, Organizers, 2001)  
 Working group on The Material Culture of Calculation, Max Planck Institute for the History of Science, International Laboratory for the History of Science (Peter Damerow, Chair and Organizer, 1999).  
 NAE/Spencer Foundation postdoctoral fellow, University of California, Berkeley (1994-1996)  
 Joseph J. Fischer Graduate Fellow, Department of Information and Computer Science, University of California, Irvine (1988)  
 Pease Barker Dissertation Fellow, University of California (1987-1988)  
 Graduate student member on the Committee for Academic Personnel at the University of California, Irvine (1987)  
 Regents Fellow, University of California (1981-1982)

### **Teaching and Advising**

#### *Graduate courses*

Design Thinking, Design Doing (with Dave Owens, Owen Graduate School of Management; selected as a University Course supporting Trans-Institutional Partnership Programs, Vanderbilt University)  
 Theories and Studies of Learning and Design (cohort seminar for Learning and Design M.Ed. program, Fall 2016)  
 Interaction Analysis of Knowledge in Use (research group seminar, 2016-2017)  
 Interpretive Research Methods (multiple offerings)  
 Learning and the Interaction Order (advanced qualitative methods; multiple offerings)  
 Learning and Instruction (doctoral pro-seminar, multiple offerings)  
 How People Learn In and Out of School (co-developed and taught with Noel Enyedy, Leona Schauble; multiple offerings)  
 NAE/Spencer Mentoring of Postdoctoral Fellows (2015)  
 Research on Interaction Analysis and Mobility (research group; 2014-2015)  
 Interaction Analysis, Mobility, and Ensemble Learning (invited lecture in a doctoral seminar on Video Analysis taught by Frederick Erickson at University of California Berkeley, expanded into a graduate research seminar at Vanderbilt during 2014–2015)

AERA Division C Graduate Students Seminar (2014)

Research on Embodied Cognition Learning and Teaching (research group, 2011-2012)

Research on Changing Representational Practices (research group; 2006-2007)

Research on Learning and Mobility (co-taught with Kevin Leander; 2005-2006)

Learning and Social Studies of Scientific Knowledge and Practice (developed and co-taught with Jean Lave and Chris Ritter; 2001)

Transitions in Mathematical Understanding (UC Berkeley; multiple offerings)

*Undergraduate courses*

Mathematical Literacies (multiple offerings)

Methods of Secondary Mathematics Teaching (co-taught with Glyn Burton, 2002)

*Doctoral advising*

Lauren Vogelstein (dissertation advisor, anticipated completion 2020).

Jennifer Kahn (dissertation advisor, anticipated completion 2016).

Benjamin Rydal Shapiro (dissertation advisor, anticipated completion 2017).

Alvin Pearman III (dissertation co-advisor with Ebony McGee, 2011 to 2013; switched to Dale Farren, Assistant Professor of Education, Fall 2017).

Lara Louise Heiberger (dissertation advisor, 2013 to 2015; switched to Ilana Horn).

Katherine Headrick Taylor (dissertation co-chair with Kevin Leander, 2013, currently Assistant Professor of Literacy, Technology and Equity at the University of Washington, Seattle)

Nathan Phillips (dissertation committee, 2013, currently Assistant Professor in Curriculum and Instruction at the University of Illinois, Chicago)

Jasmine Ma (dissertation chair, 2012, currently Assistant Professor of Mathematics Education at New York University, Steinhardt School of Culture, Education and Human Development)

Kenneth Wright (dissertation chair, 2011, currently MacArthur Foundation postdoctoral fellow at the Poincare Institute, Tufts University)

Tony Torralba (dissertation chair, 2006, currently Assistant Professor in Curriculum Studies at the University of Barcelona)

Aachey Susan Jurow (dissertation chair, 2001, currently Associate Professor in Learning Sciences at the University of Colorado, Boulder)

Noel Enyedy (dissertation committee, 2000, currently Professor and Director of Research at the University Elementary School, University of California, Los Angeles)

Reed Stevens (dissertation chair, 1999, currently Professor in Learning Sciences at Northwestern University)

**University and Professional Service**

Fall 2012-present, Chair of the Department of Teaching and Learning

2016-present, Faculty Advisory Committee to the Vanderbilt University Land Use Planning Initiative

2016-present, Faculty Advisory Committee to The Wond'ry/Innovation Center, Vanderbilt University

Vanderbilt Council on Teacher Education (2011 to present)

Fall 2015, Consultant to Miami University on planning undergraduate and graduate learning sciences programs

Spring 2015, Faculty mentor in AERA junior scholars program in STEM and Learning Sciences (Danielle Kiefert, Northwestern University)

Fall 2015, Faculty participant (lecture and questions) in a campus-wide seminar serving the Vanderbilt University Land Use Plan Initiative

Fall 2014 to present, Member of Graduate Education Study Group on the future of graduate education at Vanderbilt, advisory to Provost and Vice Chancellor for Academic Affairs, Susan Wentz

Fall 2013, Co-chair of New Education Technologies Steering Committee (with Sohee Park, A&S Psychology) for the Chancellor's Strategic Planning Initiative

Peabody Faculty Council Chair (2010/2011)

Director of Graduate Studies (2009 to 2011)

Math and Science Education Area Chair (2008/2009, 2004/2005)

Faculty Council (2008 to 2011)

Faculty Council Curriculum Committee (Chair, 2008/2009)

Chair Search for Department of Teaching and Learning (2009)

Graduate Steering Committee (02/03)

Peabody College Personnel Committee (2003 to 2011)

Department of Teaching and Learning Graduate Review Committee (Chair 02/03 to 2007)

Mathematics Education Search (2008-2009)

Mentoring Committee (various Assistant Professors)

DTL Personnel Committee (2004 to 2007)

Language, Literacy & Culture Search (04/05)

Technology in Education Search (02/03)

Science Education Search (02/03)

Secondary Education Committee (02/03)



Research Advisory Committee to Faculty Council (02/03)

IRB task force (02/03)

NSF project on STEM Learning in Museums (San Diego State University, 2013 to present).

NSF project on Cognition and Learning in Interdisciplinary Cultures (Georgia Institute of Technology, 2009 to 2012)

NSF project on Learning Physics through Play (UCLA, 2008 to 2012)

Advisory Board for NSF Center for the Advancement of Engineering Education (University of Washington, 2004 to 2007)