

JEFFREY C. SHIH

4505 Maryland Parkway, Box 453005
Las Vegas, NV 89154-3005

jshih@unlv.nevada.edu

Employment history:

University of Nevada, Las Vegas
Department of Curriculum & Instruction
Associate Professor, Elementary Mathematics Education
7/05 - present

University of Nevada, Las Vegas
Department of Curriculum & Instruction
Assistant Professor, Elementary Mathematics Education
8/99- 7/05

Education history:

UCLA
Graduate School of Education & Information Studies
Ph.D., Social Research Methodology, June 1999
Dissertation title: "Building a model of fractions knowledge: Learning from existing fractions tasks"

University of California, Berkeley
B.A., Statistics,
Minor: Physics, May 1992

Awards:

2014 UNLV College of Education Distinguished Teaching Award

2013, 2010, 2006 UNLV College of Education Distinguished Service Award

2005 UNLV College of Sciences Mathematics and Science Education
Achievement Award

Funded projects:

Shih, J., Perez, B., Stohlmann, M., & Warren, C. (1/16-6/17). *Part II: Intuitive thinking in K-3 mathematics*. PI on a project funded by the Nevada Department of Education Mathematics and Science Partnership Program that focuses on number and operations for southern Nevada schools. (\$282,386)

Shih, J., Trakas, D., Olson, T. & Warren, C. (1/16-6/17). *Developing Mathematical Modeling: Numbers and Operations*. PI on a project funded by the Nevada Department of Education Mathematics and Science Partnership Program that focuses on number and operations for northern Nevada schools. (\$254,749).

Shih, J., Scheimer, K., Olson, T., Stohlmann, M., & Warren, C. (1/15-6/16). *Intuitive thinking in K-3 mathematics*. PI on a project funded by the Nevada Department of Education Mathematics and Science Partnership Program that focuses on number and operations. (\$300,000).

Lamberg, T., Shih, J., Keppelman, E., Lakey, P., & Olson, T. (1/15-6/16). Nevada mathematics project – Phase II. Co-PI on a project funded by the Nevada Department of Education Mathematics and Science Partnership Program that focuses on math content for Nevada teachers. (\$285,516).

Lamberg, T., Olson, T., & Shih, J. (1/14-7/15). Nevada Mathematics Project. Co-PI on a project funded by the Nevada Department of Education Mathematics and Science Partnership Program that focuses on equations and expressions, fractions, and ratio content knowledge for grades 4-8 teachers. (\$295,000).

Johnson, E., Olson, T., Shih, J., Schiemer, K., & Bellomo, C. (1/13-7/14). Strategies to achieve results and the Common Core State Standards for Mathematics (STARs and the CCSS-M). Co-PI on a project funded by the Nevada Department of Education Mathematics and Science Partnership Program. (\$232,029).

Johnson, E., Olson, T., & Shih, J. (1/12-7/13). Common Core Summer Institute: Las Vegas. Co-PI on a project funded by the Nevada Department of Education Mathematics and Science Partnership Program that focuses on ratio and proportion content knowledge for grades 4-8 teachers. (\$127,964).

Giorgis, C. & Shih, J. (1/11-9/12). Math Out Loud: Exploring Mathematics and Literacy Connections. Co-PI on a project funded by the United States Department of Education that continues to design, implement, and evaluate site-based professional development for K-5 teachers in the areas of mathematics and literacy (\$110,967).

Giorgis, C. & Shih, J. (1/10-9/11). Reading, Writing, and Mathematical Thinking. Co-PI on a project funded by the United States Department of Education that continues to design, implement, and evaluate site-based professional development for K-5 teachers in the areas of mathematics and literacy (\$123,382).

- Olson, T. & Shih, J. (1/10-9/11). Teaching with Technology for Algebraic Content Knowledge. Co-PI on a project funded by the United States Department of Education to use technology to develop students' algebraic content knowledge (\$93,197).
- Giorgis, C. & Shih, J. (1/09-9/10). Creating Mathematical and Literate Communities. Co-PI on a project funded by the United States Department of Education to design, implement, and evaluate site-based professional development for K-5 teachers in the areas of mathematics and literacy (\$91,000).
- Shih, J. (1/06 – 9/07). Teachers Collaborating with Teachers about Children's Mathematics (TCTCM). Funding provided by the United States Department of Education to scale up professional development in mathematics at high need schools using teacher leaders (\$108,668).
- Shih, J. (7/04 – 9/06). Expanding the Focus on Mathematical Understanding through Assessment. Funding provided by the United States Department of Education to expand professional development that focuses on assessment for in service teachers at high-need schools to multiple grades (\$85,453).
- Shih, J. (7/03 – 9/05). Continuing to Focus on Mathematical Understanding through Assessment. Funding provided by the United States Department of Education to continue to provide professional development that focuses on assessment for in service teachers at high-need schools (\$101,223).
- Shih, J. (1/03 – 9/04). Developing Mathematical Understanding Through Sustained, Site-Based Professional Development. Funding provided by the United States Department of Education to continue to provide professional development for inservice teachers that focuses on Nevada content and process standards (\$63,906).
- Shih, J. (1/03 – 9/04). Algebra for All: The Collaborative Study of Computer-based Algebra Curricula. Funding provided by the United States Department of Education to study the evaluation of and support for computer-based algebra curricula (\$69,506).
- Shih, J. (7/01- 9/03). The Collaborative Development of Assessments of Mathematical Understanding. Funding provided by the Dwight D. Eisenhower Professional Development Program to provide professional development for pre- and inservice teachers and develop assessments of children's mathematical understanding (\$37,324).
- Shih, J., Borla, K., Adams, M., & White, N. (6/03- 9/03). Bringing Digital Video to the Mathematics Classroom. PT3 Mini-grant funded by Project THREAD to incorporate digital video of local children in elementary mathematics methods (\$3,000).
- Shih, J. (7/01- 9/02). Using Student Work to Focus on the Nevada Mathematics Standards. Funding provided by the Dwight D. Eisenhower Professional Development Program to provide professional development for pre- and inservice elementary school teachers in

both content and pedagogy reflected in the Nevada Mathematics Standards (\$15, 258).

Shih, J., Adams, M., & Postlewait, K. (6/01- 9/01). Development of Technology Module for Elementary Mathematics Methods. PT3 Mini-grant funded by Project THREAD to design a technology module for faculty to use with elementary mathematics methods (\$3,000).

Shih, J. (8/00-6/02). Integrating Mathematics and Science Education. Funding provided by the American Association of Colleges of Pharmacy to develop integrated mathematics and science tasks for pre-service teachers (\$12,000).

Olafson, L., Shih, J., Quinn, L., Hartley, K., & Bendixen, L. (7/00-6/01). Performance Assessment: Research & Development Initiative. Funding provided by the University of Nevada, Las Vegas to implement performance assessments in the preparation of teachers (\$29,625).

Publications

- Shih, J., Reys, R., & Engledowl, C. (2016). Profile of research preparation of doctorates in mathematics education in the United States. Far East Journal of Mathematical Education, 16(2), 135-148.
- Schacter, J., Shih, J., Allen, C., DeVaul, L., Adkins, A., Ito, T., & Jo, B. (2016). Math Shelf: A randomized trial of a pre-Kindergarten tablet number sense curriculum. Early Education and Development, 27(1), 74-88.
- Shih, J.C., Ing, M., & Tarr, J. (2015). Addressing measurement issues in two large-scale mathematics classroom observation protocols. In J. Middleton, J. Cai, & S. Hwang (Eds.) Large-Scale Studies in Mathematics Education (pp. 363-372). Switzerland: Springer.
- Hwang, S., Cai, J., Shih, J., Moyer, J., Wang, N., & Nie, B. (2015) Longitudinally investigating the impact of curricula and classroom emphases on the algebra learning of students of different ethnicities. In J. Middleton, J. Cai, & S. Hwang (Eds.) Large-Scale Studies in Mathematics Education (pp. 45-60). Switzerland: Springer.
- Shih, J., Adkins, A., DeVaul, L., Ito, T., & Allen, C. (2015). Early childhood gender differences in number sense when learning with iPads. In M. Che & K. Adolphson (Eds.), Proceedings of the Research Council on Mathematics Learning 42nd Annual Meeting. Las Vegas, NV.
- Lamberg, T., Lakey, P., Keppleman, E., Olson, T., & Shih, J. (2015). Nevada mathematics project: Evolution of a statewide professional development partnership. In M. Che & K. Adolphson (Eds.), Proceedings of the Research Council on Mathematics Learning 42nd Annual Meeting. Las Vegas, NV.
- Shih, J. C. (2013). How many classroom observations are sufficient? Empirical findings in the context of a longitudinal study. Middle Grades Research Journal, 8(2), 41-49.
- Ing, M. & Shih, J. C. (2013). Using generalizability theory as a framework for informing measurement issues in middle school settings. Middle Grades Research Journal, 8(2), 25-39.
- Hwang, S., Cai, J., Shih, J., Moyer, J., Wang, N., & Nie, B. (2012) Longitudinally investigating the impact of curricula and classroom emphases on equity in algebra learning. In Van Zoest, L. R., Lo, J.-J., & Kratky, J. L. (Eds.), *Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 49-56). Kalamazoo, MI: Western Michigan University.

- Shih, J. C., Speer, W. R., Babbitt, B.C. (2011). Instruction: Yesterday I learned to add; Today I forgot. In F. Fennell (Ed.), Achieving Fluency in Special Education and Mathematics (pp. 55-84). Reston, VA: National Council of Teachers of Mathematics.
- Hill, H. C. & Shih, J.C. (2009). Research commentary: Examining the quality of statistical mathematics education research. Journal for Research in Mathematics Education, 40 (3), 241-250.
- Davis, J.D & Shih, J.C. (2009). Postsecondary mathematics achievement of students learning from Mixed, Traditional, Standards-based, and Advanced Placement Mathematics Programs. In V. Akis (Ed.), *Essays on Mathematics and Statistics* (pp. 99-112). Athens, Greece: Athens Institute for Educational Research.
- Tarr, J.E., Reys, R.E., Reys, B.J., Chavez, O., Shih, J. C., & Osterlind, S. J. (2008). The Impact of Middle Grades Mathematics Curricula and the Classroom Learning Environment on Student Achievement. Journal for Research in Mathematics Education, 39, 247-280.
- Davis, J.D. & Shih, J.C. (2007). Secondary Options and Post-secondary Expectations: Standards-based Mathematics Programs and Student Achievement on College Mathematics Placement Exams. School Science and Mathematics, 107 (8), 336-346.
- Franke, M.L, Kazemi, E., Shih, J. C., Biagetti, S.C., & Battey, D. (2005). Changing teachers' professional work in mathematics: One school's journey. In T. Romberg, T. Carpenter & F. Dremock (Eds.) Understanding Mathematics and Science Matters. Hillside, NJ: Lawrence Erlbaum, 209-230.
- Shih, J. C., Olafson, L., & Navarrete, L. (2005). Adapting to meet the needs of a growing, urban school district. In P. Jenlink and K. Mayo (Eds.), Portraits of teacher preparation: Learning to teach in a changing America. Lanham, MD: Scarecrow Publishing, 175-197.
- Shih, J. C. & Giorgis, C. (2004). Enlightening Preservice Teachers to the Potential of Integrating Mathematics and Children's Literature. Teaching Children Mathematics, 10 (6), 328-333.
- Postlewait, K. B., Adams, M. R., & Shih, J. C. (2003). Instructional practices that encourage children's development of composition of number. Teaching Children Mathematics, 9(6), 354-357.
- Shih, J. C. & Ratiu, J. (2002). Developing Understanding of Equivalence Using Fair Sharing. In G. Bright and B. Litwiller (Eds.), Classroom Activities for Making Sense of Fractions, Ratios, and Proportions: 2002 Yearbook (pp. 2-4). Reston, VA: National Council of Teachers of Mathematics.

- Shih, J. C. (2002). Using Online Discussion Forums to Develop Teachers' Understanding of Students' Mathematical Thinking. Proceedings of the annual meeting of the Society for Information Technology and Teacher Education, Nashville, TN.
- Olafson, L., Bendixen, L., Shih, J.C., Hartley, K., Quinn, L., & Schroeder, M. (2002). Successes and struggles in the development of performance assessments. In E. Guyton & J. Rainer (Eds.), Research on meeting and using standards in the preparation of teachers (pp. 157-171). Dubuque, IA: Kendall/Hunt.
- Shih, J. C. (2000). Investigating preservice teachers' solution strategies of equivalence items. Proceedings of the annual meeting of the Psychology of Mathematics Education, Tucson, AZ.
- Kafai, Y. B., Franke, M., Ching, C., & Shih, J. (1998). Games as interactive learning environments fostering teachers and students' mathematical thinking. International Journal of Computers for Mathematical Learning, 3(2), 149-193.
- Franke, M. L., Shih, J. C., Kazemi, E., & Biagetti, S. C. (1998). Cases as contexts for teacher learning. Proceedings of the annual meeting of the Psychology of Mathematics Education, Raleigh, NC.
- Kafai, Y. B., Franke, M. L., Shih, J. C. and Ching, C. C. (1998). Using conceptual design tools to foster learning in the game design environment. Proceedings of the annual meeting of the Psychology of Mathematics Education, Raleigh, NC.
- Muthen, B., Huang, L. C., Jo, B., Khoo, S. T., Nelson Goff, G., Novak, J., & Shih, J. (1995). Opportunity-to-learn effects on achievement: Analytical aspects. Educational Evaluation and Policy Analysis, 17(3), 371-403.

Presentations

- Shih, J. & Gojak, L. Connecting Word Problems and Manipulatives to Understanding of Basic Facts. (April, 2016). Presentation at the National Council of Teachers of Mathematics (NCTM) Annual Meeting, San Francisco, CA.
- Diamond, J., Kalinec-Craig, C., & Shih, J. Elementary Mathematics Preservice Teachers' Knowledge of Content and Students: A Multi-institutional Study. (January, 2016). Presentation at the Association of Mathematics Teacher Educators (AMTE) Twentieth Annual Conference, Irvine, CA.
- Shih, J. & Giorgis C. A framework for Integrating Mathematics with Children's Literature. (June, 2015). Presentation at the Cognitively Guided Instruction Conference, Los Angeles, CA.
- Shih, J. & Adkins, A., & Allen, C. Examining the effectiveness of iPad apps in early childhood settings. (April, 2015). Presentation at the Annual Meeting of the National Council of Teachers of Mathematics, Boston, MA.
- Shih, J., Adkins, A., DeVaul, L., Allen, C., & Ito, T. (February, 2015). Studying the effectiveness of a Pre-K iPad Number Sense Curriculum. Presentation at the Research Council on Mathematics Learning 42nd Annual Meeting, Las Vegas, NV.
- Adkins, A., Shih, J., DeVaul, L., Ito, T., & Allen, C. (February, 2015). Early childhood gender differences in number sense when learning with iPads. Presentation at the Research Council on Mathematics Learning 42nd Annual Meeting, Las Vegas, NV.
- Lamberg, T., Lakey, P., Keppleman, E., Olson, T., & Shih, J. (February, 2015). Nevada mathematics project: Evolution of a statewide professional development partnership. Presentation at the Research Council on Mathematics Learning 42nd Annual Meeting, Las Vegas, NV.
- Adkins, A., Shih, J., & DeVaul, L. (February, 2015). Lessons learned about preschool children's use of iPads. Presentation at the Association of Mathematics Teacher Educators (AMTE) Nineteenth Annual Conference, Orlando, FL.
- Mathematics Teacher Educator Editorial Board. (April, 2014). Mathematics Teacher Educator: Information for potential authors. Presentation at the National Council of Teachers of Mathematics (NCTM) Research Conference, New Orleans, LA.
- Olson, T., Shih, J., Thomas, A., DeVaul, L., & Adkins, A. (February, 2014). iPad apps utilized in middle school mathematics classrooms with a 1:1 setting. Presentation at the Association of Mathematics Teacher Educators (AMTE) Eighteenth Annual Conference, Irvine, CA.
- Olson, T. A. & Shih, J. (January, 2013). A framework for in-service teacher content analyses of textbooks regarding the CCSSM content standards. Presentation at the Association of Mathematics Teacher Educators Seventeenth Annual Conference, Orlando, FL.

- Hwang, S., Cai, J., Shih, J., Moyer, J., Wang, N., & Nie, B. (November, 2012). Longitudinally Investigating the Impact of Curricula and Classroom Emphases on Equity in Algebra Learning. Paper presented at the annual meeting of the Psychology of Mathematics Education, North American Chapter, Kalzamazoo, MI.
- Shih, J., Ing, M., Charalambos, C., Tarr, J., Kraft, M., Hill, H., Grouws, D. (April, 2012). Addressing Measurement Issues in Two Large-Scale Mathematics Classroom Observation Protocols. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.
- Shih, J., Goldberg, L., Moody, A., Goodman, A. (January, 2012). Working with a Framework for Integrating Mathematics and Children's Literature. Presentation at the annual meeting of the Southern Nevada Mathematics Council, Las Vegas, NV.
- Shih, J., Giorgis C., Jaramillo, M., & Carr, H. Math Fables: Integrating Mathematics with Children's Literature. (June, 2011). Presentation at the Cognitively Guided Instruction Conference, Little Rock, AK.
- Olson, T. A., & Shih, J. C. (2011, January). Articulated learning trajectories in middle- grades mathematics textbooks: Implications for teacher education programs and coursework. Presentation at the Association of Mathematics Teacher Educators (AMTE) Fifteenth Annual Conference, Irvine, CA.
- Shih, J., Olson, T. A., & MacDonald, S. (2011, January). Elementary mathematics education content and methods courses: Alignment among institutions' programs. Presentation at the Association of Mathematics Teacher Educators (AMTE) Fifteenth Annual Conference, Irvine, CA.
- Shih, J., Carr, H., & Jaramillo, M. (January, 2011). Integrating Children's Literature with Big Ideas in Mathematics. Presentation at the annual meeting of the Southern Nevada Mathematics Council, Las Vegas, NV.
- Cai, J., Moyer, J., Shih, J., & Wang, N. Investigating the Effects of Curricula and Classroom Emphases on Algebra Learning: Cross-Sectional Analyses. (April, 2011). Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Shih, J., Chavez, O., & Tarr, J. How Many Classroom Observations Are Sufficient? Empirical Findings in the Context of a Longitudinal Study. (April, 2010). Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.
- Webb, N., Ing, M. & Shih, J. Validity of Observational Measures of Classroom Practices: Class-level vs. Student-level Protocols. (April, 2010). Paper presented at the annual meeting of the National Council on Measurement in Education, Denver, CO.

- Shih, J. & Giorgis, C. The Mathematics and Literature Connection: Moving beyond The Doorbell Rang. (April, 2010). Presentation at the Annual Meeting of the National Council of Teachers of Mathematics, San Diego, CA.
- Olson, T. A., & Shih, J. (2010, November). *Articulated learning trajectories and the enacted curriculum*. Poster presented at the Conference on Research on the Enacted Curriculum, Tampa, FL.
- Shih, J & Giorgis C. Connecting Children's Mathematical Thinking and Children's Literature. (July, 2009). Presentation at the Cognitively Guided Instruction Conference, San Diego, CA.
- Shih, J. & Davis, J. Examining the Effect of Two Reform-Oriented Mathematics Curricula on Postsecondary Mathematics Placement. (April, 2009). Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- Cai, J., Moyer, J. Shih, J., Wang, N., Nie, B. A Longitudinal Investigation of Curricular Effect on Students' Procedural and Conceptual Understanding of Algebra. (April, 2009). Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- Shih, J. & Giorgis, C. Striving for More Authentic Connections Between Mathematics and Children's Literature. (April, 2009). Presentation at the Annual Meeting of the National Council of Teachers of Mathematics, Washington, D.C.
- Cai, J., Moyer, J., Shih, J., Wang, N., Nie, B. Curricular Effect on Algebra Learning: A Three-Year Longitudinal Study. (April, 2009). Paper presented at the Research Pre-session of the Annual Meeting of the National Council of Teachers of Mathematics, Washington D.C.
- JRME Editorial Panel. Getting Published in Journal for Research in Mathematics Education (JRME). (April, 2009). Work session at the Research Pre-session of the Annual Meeting of the National Council of Teachers of Mathematics, Washington D.C.
- Davis, J. & Shih, J. Research Connections between Secondary School and College Mathematics Achievement. (April, 2008). Presentation at the Research Pre-session of the Annual Meeting of the National Council of Teachers of Mathematics, Salt Lake City, UT.
- Cai, J., Moyer, J., Bikai, N., Shih, J., Wang, N., & Earle, J. (April, 2008). A Longitudinal Investigation of Curricular Effect on Algebra Learning. Research Symposium at the Research Pre-session of the Annual Meeting of the National Council of Teachers of Mathematics, Salt Lake City, UT.
- D'Ambrosio, B., Esty, E., Heid, M.K., Hill, H., Kastberg, S., Klooseterman, P., Mewborn, D.,

- Moss, J., Shih, J., Sztajn, P., & Lloyd, G. Getting Published: Conversations with JRME Panel Members. Work session at the Research Pre-session of the Annual Meeting of the National Council of Teachers of Mathematics, Salt Lake City, UT.
- Shih, J.C. (October, 2007). Learn / Reflect Reflection Session. Presentation at the regional meeting of the National Council of Teachers of Mathematics, Kansas City, MO.
- Shih, J. C. (May, 2007). Research Design in Large-Sample Studies of Students' Math Achievement. Invited presentation at the Center for the Study of Mathematics Curriculum (CSMC) Graduate Student Research Institute, Columbia, MO.
- Shih, J. C., Chavez, O., Tarr, J.E. (April, 2007). Examining the Influence of NSF Curricula and Standards-Based Learning Environments on Content-Specific Mathematics Achievement. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Shih, J. C., Chavez, O., Tarr, J.E., Reys, R. E., and Reys, B. J. (April, 2006). Design, Data, and Analysis Issues in Evaluating Mathematics Curricula. Poster presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Tarr, J. E., Reys, R. E., Chavez, O., Shih, J. C., Confrey, J., and Silver, E. A. (April, 2006). A Longitudinal Study of Mathematics Curriculum and Student Achievement. Paper presented at the research pre-session of the National Council of Teachers of Mathematics, St. Louis, MS.
- Adams, M., Shih, J. & Borla, K. (April, 2005). Number Concept Assessment Project: Examining Students' Assessments in Number. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Anaheim, CA.
- Klockow, J., Olafson, L., & Shih, J. (April, 2005). Promoting Teacher Development: Exploring the Relationship Between Reflective Thought and Mathematical Pedagogy. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Shih, J., Olafson, L., & Klockow, J. (April, 2004). Using a Change Process Research Measure to Assess the Effectiveness of Professional Development. Roundtable presentation at the annual meeting of the American Educational Research Association, San Diego, CA.
- Klockow, J., Olafson, L., & Shih, J. (April, 2004). Our Kids Can't Learn: Teachers' Perceived Barriers to Professional Development. Roundtable presentation at the annual meeting of the American Educational Research Association, San Diego, CA.
- MacDonald, L., Inukai-Center, S., & Shih, J. (April, 2004). Sustaining Professional Development Using a Collaborative Model. Presentation at the annual meeting of the National Council of Supervisors of Mathematics, Philadelphia, PA.

- Shih, J. (February, 2004). Equality and Relational Thinking in the Elementary Grades. Presentation at the annual meeting of the Southern Nevada Mathematics Council, Las Vegas, NV.
- Shih, J. & Hernon, C. (May, 2003). Developing Children's Conceptions of Equality. Presentation at the annual meeting of the Southern Nevada Mathematics Council, Las Vegas, NV.
- Shih, J. & Yang, C.C. (April, 2003). Contextual Factors that Influence the Incorporation of Performance Assessment in Taiwan and the United States. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Shih, J. (March, 2003). Using Number Sentences to Develop Teachers' Understanding of Relational Thinking. Paper presented at the annual meeting of the Research Council on Mathematics Learning, Tempe, AZ.
- Speer, W., Shih, J., Govett, A., Crippen, K., & Hernon, C. (March, 2003). Integrating Mathematics and Science Methods – We're in This Together. Panel presentation at the annual meeting of the Research Council on Mathematics Learning, Tempe, AZ.
- Shih, J. (August, 2002). A Mathematics Learning Community at Work. Presentation at the annual meeting of the Nevada Leadership Academy, Reno, NV.
- Shih, J. & Yang, C.C. (April, 2002). Cross-Cultural Perspectives of Incorporating Performance Assessment into Teacher Education. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Shih, J. & Giorgis, C. (April, 2002). Creating an Awareness of the Potential for Integrating Mathematics and Children's Literature. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Las Vegas, NV.
- Shih, J. (March, 2002). Using Online Discussion Forums to Develop Teachers' Understanding of Students' Mathematical Thinking. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Nashville, TN.
- Shih, J & Govett, A. (2001, November). The Impact of Integrated Science and Mathematics Methods. Paper presented at the annual meeting of the School Science and Mathematics Association, Downer's Grove, IL.
- Shih, J., Olafson, L., Bendixen, L., Hartley, K., & Quinn, L. (2001, April). Incorporating performance assessment in a teacher education program. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.
- Franke, M.L., Kazemi, E., Biagetti, S.C., & Shih, J.C. (2001, April). Changing teachers' professional work in mathematics: One school's journey. Paper presented at the annual

meeting of the American Educational Research Association, Seattle, WA.

Shih, J. (2001, March). The influence of representation on preservice teachers' knowledge of fractions. Paper presented at the annual meeting of the Research Council on Mathematics Learning, Las Vegas, NV.

Shih, J. (2001, February). Students' conceptions of number sentences and the equals sign. Paper presented at the annual meeting of the Southern Nevada Mathematics Council, Las Vegas, NV.

Olafson, L., Bendixen, L., Hartley, K., Shih, J., & Quinn, L. (2001, February). Evaluating performance assessments. Paper presented at the annual meeting of the Association of Teacher Educators, New Orleans, LA.

Shih, J. (2000, October). Investigating preservice teachers' solution strategies of equivalence items. Paper presented at the annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, AZ.

Olafson, L., Shih, J., Quinn, L., Hartley, K., & Bendixen, L. (2000, August). Encouraging best practice by implementing performance-based standards in university courses. Paper presented at the Association of Teacher Educators Summer Conference, Ottawa, Canada.

Shih, J. (2000, April). Bringing together multiple perspectives in the understanding of fractions. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Franke, M., Shih, J., Biagetti, S., Kazemi, E., & Isken, J. (2000, April). Teacher learning through students' mathematical thinking: A systematic study of two professional development approaches. Roundtable session presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Shih, J., Franke, M., Kazemi, E., & Biagetti, S. (2000, March). The development of children's mathematical thinking: From addition to algebra. Paper presented at the annual meeting of the Research Council on Mathematics Learning, Las Vegas, NV.

Shih, J. (2000, February). A conceptual approach to teaching fractions. Presented at the annual meeting of the Southern Nevada Mathematics Council, Las Vegas, NV.

Shih, J. (1999, November). Research and practice: Teaching fractions for understanding. Presented at the annual meeting of the California Mathematics Council- Southern Section, Palm Springs, CA.

Shih, J. (1999, April). Learning about preservice teachers' fractions knowledge using buggy algorithms. Roundtable session presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

- Franke, M., Shih, J., Kazemi, E., and Biagetti, S. (1998, October). Opportunities for generative change: the case of one urban school. Paper presented at the annual meeting of the Psychology of Mathematics Education, Raleigh, NC.
- Kafai, Y., Franke, M., Shih, J., and Ching, C. (1998, October). Using conceptual design tools to foster learning in the game design environment. Paper presented at the annual meeting of the Psychology of Mathematics Education, Raleigh, NC.
- Franke, M., Biagetti, S., Kazemi, E., & Shih, J. (1998, April). Placing cases in the context of teacher change. Paper presented at the annual meeting of the American Educational Research Association, San Diego.
- Shih, J. & Kriegler, S. (1997, November). Patterns and functions in preservice mathematics classes. Presentation at the Annual Fall Conference of the California Mathematics Council- South, Palm Springs, CA.
- Franke, M. & Shih, J. (1997, May). Listening to children's mathematical thinking. Presentation at the annual Center X conference: Integrating research and practice, Los Angeles, CA.
- Franke, M., Shih, J., Biagetti, S., & Salmon, J. (1997, March). Preservice teachers' voices as a context for discussing knowledge of fractions. Poster session presented at the meeting of the American Educational Research Association, Chicago, IL.
- Franke, M., Kafai, Y., & Shih, J. (1997, March). Preservice teachers' conceptions of learning through making games. In Yasmin Kafai (Chair), Games as meaningful contexts for students' and teachers' mathematical thinking and learning. Symposium conducted at the meeting of the American Educational Research Association, Chicago, IL.
- Shih, J. & Curran, P.J. (1996, April). Latent growth modeling of multidimensional mathematics achievement. In Bengt Muthen (Chair), Methodological advances in longitudinal modeling. Symposium conducted at the meeting of the American Educational Research Association, New York, NY.
- Webb, N., Shih, J., Baxter, G., & Thompson, L. (1994, March). Teachers' grouping practices in elementary school science. Poster session presented at the meeting of the American Educational Research Association, New Orleans, LA.

Teaching Experience

University of Nevada, Las Vegas (Fall, 1999 – present)

Fall, Spring 2014
Fall, Spring 2013
Fall, Spring 2012 (2 sections each)
Fall, Spring 2011
Fall, Summer, Spring 2010
Fall, 2009 (2 sections)
Fall, 2008 (2 sections)
Spring, 2008
Fall, 2007 (2 sections)
Spring, 2007
Fall, 2006 (2 sections)
Fall, 2005
Fall, 2002 (2 sections)
Spring, 2002
Fall, 2001
Fall, 2000
Spring, 2000 (3 sections)
Fall, 1999 (2 sections)

Theory and Research in School Mathematics, CIG 783
Fall, 2014

Teaching Elementary School Mathematics, ICE 452,
Paradise Professional Development School Cohort
Fall, 2001
Fall, 2000 - Spring, 2001

Technology in K-8 Mathematics, CIG 727 / ICE 715
Spring, 2010, 2009, 2008, 2007, 2006, 2005, 2004, 2002

Seminar in Curriculum and Instruction: Mathematics, ICG 772
Fall, 2003

Principles of Mathematics Learning, ICG 750
Spring, 2003
Spring, 2001

Topics in Elementary School Mathematics, ICE 713
Summer, 2000 – Summer 2006

Instructional Methods in Intermediate and Elementary Mathematics, CIE 625

Fall, 2010

Instructional Methods in Elementary School Mathematics, ICE 714
Fall, 2000, 2013

Research Methods, EPY 702
Summer, 2000

Cal State, Los Angeles
Statistics in Education (2 sections)
Spring, 1999

Professional Affiliations & Activities

Appointed Positions:

Associate Chair, Department of Teaching and Learning (2016-present)

Director, Center for Mathematics, Science, and Engineering Education
(2016-present)

- Program Coordinator, Nevada Collaborative Teaching Improvement Program
(2007- present)

Executive Editor, Cognition and Instruction (2016-present)

National Council of Teacher of Mathematics (NCTM) Program Development
Group (2014- present)

UNLV Professional Development Committee (2016- present)

- Co-Director, Center for Mathematics, Science, and Engineering Education (2013-
2016)
- Elementary School Journal, Editorial Board (2012-2016)
- Mathematics Teacher Educator, Editorial Board (2012-2016)
- ¥ Communications Task Force, Association of Mathematics Teacher Educators
(2012-2014)
- ¥ Nevada Mathematics Council University Representative (2003- 2008, 2012-
present)
- ¥ Southern Nevada Mathematics Council University Representative (2001- 2008,

2012-present)

- ¥ Clark County School District Research Review Committee (2008-present)
- ¥ American Educational Research Association, Professional Development Committee, 2010-2012
- ¥ National Council of Teachers of Mathematics, 2013 Annual Conference, Program Committee Chair
- ¥ Technology Committee Chair, Association of Mathematics Teacher Educators (2009-2011)
- ¥ Journal for Research in Mathematics Education (JRME) Editorial Board, 2007-2010
- ¥ Guest Editor, Middle Grades Research Journal, Middle School Mathematics Focus Issue
- ¥ Technology Committee, Association of Mathematics Teacher Educators (2009-2011)
- ¥ American Educational Research Association, Outstanding Book Award Committee Chair, 2007- 2009
- ¥ National Council of Teachers of Mathematics 2008 Annual Conference, Program Committee
- ¥ National Council of Teachers of Mathematics, 2007 Kansas City Regional Conference, Program Committee
- ¥ American Educational Research Association, Outstanding Book Award Committee Member, 2006-2007
- ¥ Research Council on Mathematics Learning co-Program Chair, 2006 Annual Conference
- ¥ Research Council on Mathematics Learning, Program Committee (2005-2007)
- ¥ National Council of Teachers of Mathematics 2002 Annual Conference Technology Committee Chair
- ¥ American Educational Research Association, Special Interest Group: Research in Mathematics Education Electronic Communications Secretary (2001-2003)
- ¥ Research Council on Mathematics Learning Annual Conference Technology Coordinator (2001)
- ¥ School Science and Mathematics Association Membership Committee (2003-2004)
- ¥ University Consultant: MASE K-5 Using Technology NSF grant (2000-2008)
- ¥ Nevada Chapter of the American Statistical Association liaison to the Southern Nevada Mathematics Council (2003-2010)

Elected Position:

American Educational Research Association, Special Interest Group: Research in
Mathematics Education Executive Board (2009-2011)

- ¥ Membership in:
 - ¥ National Council of Teachers of Mathematics
 - ¥ Association of Mathematics Teacher Educators
 - ¥ Research Council on Mathematics Learning
 - ¥ Nevada Mathematics Council
 - ¥ Southern Nevada Mathematics Council
 - ¥ American Educational Research Association, Special Interest Group: Research in Mathematics Education

- ¥ Manuscript / Grant Proposal Reviewer:
 - ¥ Journal for Research in Mathematics Education
 - ¥ National Science Foundation Discovery Research K-12
 - ¥ American Educational Research Journal
 - ¥ Journal of Teacher Education
 - ¥ School Science and Mathematics Journal

- ¥ Professional Development with teachers:
 - ¥ Paradise Professional Development School, 2000- 2012.
 - ¥ Petersen Professional Development School, 2000- 2012.
 - ¥ Jay Jeffers Elementary School, 2004- 2008.
 - ¥ Steve Cozine Elementary School, 2004- 2008.
 - ¥ I. J. Earl Elementary School, 2002- 2008.
 - ¥ Walter Long Elementary School, 2000- 2008.
 - ¥ Tom Williams Elementary School, 2003- 2005.
 - ¥ Elbert Edwards Elementary School, 2002- 2005.
 - ¥ Matt Kelly Elementary School, 2002- 2005.
 - ¥ Ann Lynch Elementary School, 2002- 2004.
 - ¥ Myrtle Tate Elementary School, 2002- 2005.
 - ¥ James Cashman Middle School, 2002- 2005.
 - ¥ Dell Robison Middle School, 2002- 2005.
 - ¥ J. D. Smith Middle School, 2002- 2004.
 - ¥ Marion Earl Elementary School, 2000- 2001.
 - ¥ Loreto Street Elementary School, 1998- 2001.
 - ¥ Moffett Elementary School, 1996- 2001.
 - ¥ Ruby Thomas Elementary School, 1999.
 - ¥ University Elementary School, 1996-1999.
 - ¥ Will Rogers Elementary School, 1998- 1999.
 - ¥ Jefferson Elementary School, 1995-1996.