

VITA

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Current Position

Professor, Department of Psychology, University of California, Los Angeles. October, 1991 to present.

Fellow, Precision Institute, National University, San Diego, CA. September 2017 to present.

Previous Positions

Senior Fellow, Carnegie Foundation for the Advancement of Teaching. 2008 to 2017.

Associate Dean for Research and Innovation, UCLA Division of Social Sciences. July 2011 to 2016.

Senior Vice President, Research, Pearson Achievement Solutions, Santa Monica, CA August 2003 to July 2007.

Founder and CEO, LessonLab Inc., Santa Monica, CA. July 1998 to August 2003.

Assistant to Associate Professor, Departments of Psychology (Committees on Developmental Psychology, Human Development, and Cognition and Communication), Education, and the Center for East Asian Studies. The University of Chicago, Chicago, Illinois. January, 1983 to September, 1991; promoted to Associate Professor with tenure July 1, 1989.

Visiting Professor, Department of Math and Social Sciences, Dartmouth College, Hanover, New Hampshire. Summer, 1991.

Entrepreneurial Experience

Zaption, Inc. Co-founded education technology company in the video learning space. 2013 – 2016. Acquired by Workday, Inc., July 2016.

LessonLab, Inc. Founded company in the education/technology space in 1998. CEO, 1998 – 2003. Acquired by Pearson plc in 2003. Subsequently, Senior Vice President, Research, Pearson Achievement Solutions, August 2003 to July 2007.

Digital Lava, Inc. Founded multimedia technology company in 1995, managed IPO in 1999.

Education

Ph.D. in Developmental Psychology, University of Michigan, Ann Arbor, Michigan. December, 1982.

M.A. in Developmental Psychology, University of Michigan, Ann Arbor, Michigan. August, 1979.

M.S. in Education, University of Pennsylvania, Philadelphia, Pennsylvania. May, 1977.

A.B. in Religious Studies, Brown University, Providence, Rhode Island. May, 1976.

Honors and Awards

Fellow, Psychonomic Society. Starting 2019.

Fellow, Association for Psychological Science. Elected 2013.

Fellow, American Educational Research Association. Inducted July, 2008.

Member, National Academy of Education. Elected May, 2003.

American Educational Studies Association Critics' Choice Award (for *The Teaching Gap*), 2000.

Member, Board on Behavioral, Cognitive, and Sensory Sciences, National Research Council, National Academy of Sciences, 1997-2001.

University of Pennsylvania Alumni Association National Award of Distinction, 1997.

American Federation of Teachers QUEST Award, 1995.

American Educational Research Association 1989-1990 Review of Research Award, for the chapter "Culture and Mathematics Learning" (*Review of Research in Education*, 1989, 15, 253-306).

Guggenheim Fellowship, John Simon Guggenheim Memorial Foundation, 1989-90.

Boyd R. McCandless Young Scientist Award, Division 7 of the American Psychological Association, 1989.

Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford, California, 1989-90.

Spencer Fellowship, awarded by the National Academy of Education, 1986.

William G. Chase Memorial Award for "Outstanding Research by a Young Scientist in the General Area of Cognitive Psychology." First recipient of prize awarded biannually by Carnegie-Mellon University, 1985.

University of Michigan Rackham Pre-doctoral Fellowship, 1981-82.

University of Michigan Rackham Dissertation Grant, 1981-82.

Social Science Research Council Fellowship for International Doctoral Research, awarded but declined, 1981.

National Institute of Child Health and Human Development Traineeship in Developmental Psychology, 1978-79.

University of Michigan Rackham First Year Fellowship, 1977- 78.

University of Pennsylvania Scholarship, 1976-77.

Teaching Experience

Lecturer, National Taiwan University Medical College, "Introduction to Child Development". September, 1979 to June, 1980.

Instructor, University of Michigan, "Introduction to Psychology as a Natural Science". Fall, 1981.

Assistant to Associate Professor, University of Chicago, January, 1983 to present. Courses taught include "Seminar on Human Intelligence", "Seminar on Culture and Cognition", "Introduction to Developmental Psychology", "Cognitive Development", "Perspectives on Human Intelligence", "The Acquisition of Mathematical Knowledge", "Laboratory in Cognitive Psychology", "Research Methods in Psychology", "Trial Research Seminar", and a freshman core course called "Mind".

Professor, University of California, Los Angeles, October, 1991 to present. Undergraduate courses taught include "Psychology and Education," "Laboratory in Developmental Psychology," "Introduction to Psychological Statistics," and "Seminar on Psychology and Education." Graduate courses include "Culture, Schooling, and Cognitive Development," and "Seminar in Educational Psychology."

Research Funding

National Precision Research and Innovation Network. Funded by National University (PI), 2018-2021. Total Grant: \$403,719

Developing a New R&D Model for Continuous Improvement of Postsecondary Teaching and Learning. Funded by the Chan Zuckerberg Initiative (PI), 2017-2020. Total Grant: \$1,525,127

Building and Testing Video-Based OER Materials for Community College Developmental Math and English. Funded by LA Community College District (PI), 2014-2015. Total Grant: \$45,000.

Mathematics Teaching in Finland, Norway, Sweden, and the United States: A Comparative Video Study. Funded by University of Gothenberg, Sweden (PI), 2012-2014. Total Grant: \$154,651.

Rethinking the Role of Research in Improving Education: Building a Research Network to Support Practice Improvement. Funded by the National Science Foundation (PI), 2012-2014. Total Grant: \$299,957.

Transforming Students' Mathematical Experiences: Advancing Quality Teaching with Reliability at Scale. Funded by the National Science Foundation (Co-PI) in a grant to the Carnegie Foundation for the Advancement of Teaching, 2013-2017. Total Grant: \$3,499,709.

Networked Improvement Communities for Improving Education: The Alpha Labs. Funded by the Carnegie Foundation for the Advancement of Teaching (PI), 2009-2018. Total Grant: \$763,337.

National Center for Advanced Technology in Schools. Funded by Institute of Education Sciences (Co-PI), 2008-2013. Total grant: \$9.83 million.

TimssVideo.com: Supporting Open Public Access to the TIMSS Videos. Funded by grants from the William and Flora Hewlett Foundation and the Gabriella and Paul Rosenbaum Foundation, 2011. \$30,000.

Understanding Instructional Quality in Mathematics. Funded by National Science Foundation (Co-PI with Nicole Kersting), 2007-2011. Total grant: \$1.5 million.

Improving Achievement by Maintaining the Learning Potential of Rich Mathematics Problems: An Experimental Study of a Video- and Internet-Based Professional Development Program. Funded by the Institute of Education Sciences, 2003-2007. Total grant: \$1.5 million.

Representing and Learning from Classroom Process. Funded by National Science Foundation, 2000-2004. (Joint with University of Illinois.) Total grant: \$78,865.

Developing an On-Line Course for Teachers Based on the TIMSS-R Public Release Algebra Lessons. Funded by the Intel Foundation, 2002-2003. Total grant: \$225,000.

Mathematics and Science Teaching in High Achieving Countries. Funded by the National Center for Education Statistics, 1998-2003. Total grant: \$13.9 million.

TIMSS Video Data Center. Funded by the National Center for Education Statistics, 1998-2003. Total grant: \$1.0 million.

Mathematics Teaching in Japan, Germany, and the United States. Funded by the National Center for Education Statistics, 1993-1998. Total grant: \$2.2 million.

Mathematical Discourse in Japanese and American Elementary Classrooms. Funded by NSF, 1993-1996. Total grant: \$427,451.

Construction of Mathematical Knowledge in Japanese and American Classrooms. Funded by the Spencer Foundation, 1988-1993. Total direct costs: \$304,820.

Books and Monographs

Stigler, J. W., Shweder, R. A., and Herdt, G. (Eds.) (1990). *Cultural psychology: Essays in comparative human development*. New York: Cambridge University Press.

Stevenson, H. W., Lummis, M., Lee, S. Y., & Stigler, J. W. (1990). *Making the grade in mathematics: Elementary school mathematics in the United States, Taiwan, and Japan*. Reston, VA: National Council of Teachers of Mathematics.

Stevenson, H. W., Lee, S. Y., Chen, C., Stigler, J. W., Hsu, C. C., & Kitamura, S. (1990). Contexts of achievement: A study of American, Chinese, and Japanese children. *Monographs of the Society for Research in Child Development*, Serial No. 221, Vol. 55, Nos. 1-2.

Stigler, J. W., Lee, S. Y., and Stevenson, H. W. (1990). *Mathematical knowledge of Japanese, Chinese, and American elementary school children*. Reston, VA: National Council of Teachers of Mathematics.

Stevenson, H. W. and Stigler, J. W. (1992). *The learning gap: Why our schools are failing, and what we can learn from Japanese and Chinese education*. New York: Summit Books. (Released as Touchstone Paperback, Simon & Schuster, 1994.)

- Stigler, J.W., Gonzales, P., Kawanaka, T., Knoll, S., & Serrano, A. (1999). *The TIMSS videotape classroom study: Methods and findings from an exploratory research project on eighth-grade mathematics instruction in Germany, Japan, and the United States*. U.S. Department of Education, National Center for Education Statistics.
- Stigler, J. W. and Hiebert, J. (1999/2009). *The teaching gap: Best ideas from the world's teachers for improving education in the classroom*. New York: Free Press. (Japanese translation published 2002, Tokyo: Education Press.)
- Hiebert, J., Gallimore, R., Garnier, H., Givvin, K.B., Hollingsworth, H., Jacobs, J., Chui, A.M.Y., Wearne, D., Smith, M., Kersting, N., Manaster, A., Etterbeek, W., Manaster, C., Gonzales, P., & Stigler, J.W. (2003). *Teaching mathematics in seven countries: Results from the TIMSS 1999 Video Study*. NCES 2003-013, Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Jacobs, J., Garnier, H., Gallimore, R., Hollingsworth, H., Givvin, K. B., Rust, K., Kawanaka, T., Smith, M., Wearne, D., Manaster, A., Etterbeek, W., Hiebert, J., & Stigler, J. (2003). *TIMSS 1999 Video Study Technical Report: Volume 1: Mathematics Study*. U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Roth, K.J., Druker, S.L., Garnier, H.E., Lemmens, M., Chen, C., Kawanaka, T., Rasmussen, D., Trubacova, S., Warvi, D., Okamoto, Y., Gonzales, P., Stigler, J., & Gallimore, R. (April, 2006). *Teaching Science in Five Countries: Results From the TIMSS 1999 Video Study Statistical Analysis Report*. NCES 2006-011, Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Articles and Chapters

- Sophian, C. and Stigler, J. W. (1981). Does recognition memory improve with age? *Journal of Experimental Child Psychology*, 32, 343-353.
- Hsu, C. C., Stigler, J. W., Hong, C. C., Soong, W. T. and Liang, C. C. (1981). The temperamental characteristics of Chinese babies. *Child Development*, 52, 1337-1340.
- Stevenson, H. W., Lee, S. Y. and Stigler, J. W. (1981). The reemergence of child development in the People's Republic of China. *Society for Research in Child Development Newsletter*, Summer, 1-5.
- Stigler, J. W., Barclay, C. R., Aiello, P. D. and Chu, C. C. (1982). Motor and mental abacus skill: A preliminary look at an expert. *The Quarterly Newsletter of the Laboratory of Comparative Human Cognition*, January.
- Stigler, J. W. (1982). Abacus skill in Chinese children: Imagery in mental calculation. Doctoral dissertation, University of Michigan.
- Stevenson, H. W., Stigler, J. W., Lucker, G. W. and Lee, S. Y. (1982). Reading disabilities: The case of Chinese, Japanese and English. *Child Development*, 53, 1164-1181.
- Stigler, J. W., Lee, S. Y., Lucker, G. W. and Stevenson, H. W. (1982). Curriculum and achievement in mathematics: A study of elementary school children in Japan, Taiwan and the United States. *Journal of Educational Psychology*, 74, No. 3, 315-322.

- Stevenson, H. W. and Stigler, J. W. (1983). Observing behavior. *High School Psychology Teacher*, 14, No. 4.
- Kenny, D. A. and Stigler, J. W. (1983). LEVEL: A FORTRAN program for correlational analysis of group-individual data. *Behavior Research Methods and Instrumentation*, 15(6), 606.
- Chang, S. K., Zhang, D. X., and Stigler, J. W. (1983). A computerized abacus for Chinese office automation. In *Proceedings of the Eighth Annual Convention of the Chinese-American Academic and Professional Association*, 40-41.
- Stevenson, H. W., Lee, S. Y., Stigler, J. W. and Lucker, G. W. (1984). Family variables and reading: A study of mothers of poor and average readers in Japan, Taiwan and the United States. *Journal of Learning Disabilities*, Volume 17, Number 3, 150-156.
- Stigler, J. W. (1984). "Mental Abacus": The effect of abacus training on Chinese children's mental calculation. *Cognitive Psychology*, 16, 145-176.
- Chang, S. K., Zhang, D. X., and Stigler, J. W. (1984). A computerized abacus for Chinese office automation and computer-aided instruction. *Journal of Computer Processing of Chinese and Oriental Languages*, May.
- Stevenson, H. W., Stigler, J. W., Lee, S. Y. and Kitamura, S. (1985). Achievement in mathematics. In H. Stevenson, H. Azuma, and K. Hakuta (Eds.), *Child development and education in Japan*. New York: Freeman.
- Stevenson, H. W., Lucker, G. W., Lee, S. Y., and Stigler, J. W. (1985). Poor readers in three cultures. In C. Super and S. Harkness (Eds.), *The role of culture in developmental disorders, Vol. I*. New York: Academic Press.
- Stigler, J. W., Smith, S., and Mao, L. W. (1985). The self-perception of competence by Chinese children. *Child Development*, 56, 1259-1270.
- Stevenson, H. W., Stigler, J. W., Lee, S. Y., and Lucker, G. W. (1985). Cognitive performance and achievement of Japanese, Chinese and American children. *Child Development*, 56, 718-734. [Reprinted in S. Chess and A. Thomas (Eds.), *Annual Progress in Child Psychiatry and Child Development: 1986 Edition*.]
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- Lee, S. Y., Stigler, J. W., and Stevenson, H. W. (1985). Beginning reading in Chinese and English. In A. Siegel and B. Foorman (Eds.), *Learning to read: Cognitive universals and cultural constraints*. Hillsdale, NJ: Erlbaum.
- Stigler, J. W. (1985). Operationalizing Vygotsky. *Contemporary Psychology*, Vol. 30, No. 6, 452-453. Review of B. Rogoff and J. Wertsch (Eds.), *Children's learning in the "Zone of Proximal Development."* *New Directions for Child Development*, No. 23, March 1984. San Francisco: Jossey-Bass.

- Stigler, J. W., Chalip, L., and Miller, K. F. (1986). Consequences of skill: The case of abacus training in Taiwan. *American Journal of Education*, Vol. 94, No. 4, 447-479.
- Stigler, J. W., Lee, S. Y., and Stevenson, H. W. (1986). Digit memory in Chinese and English: Evidence for a temporally limited store. *Cognition*, 23, 1-20.
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- Stigler, J. W., and Perry, M. (1986). Learning in the laboratory. *Contemporary Psychology*, Vol. 31, No. 10, 794-795. Review of M.A. Jeeves and G.B. Greer, *Analysis of structural learning*. London: Academic Press, 1983.
- Stigler, J. W., Fuson, K. C., Ham, M., and Kim, M. S. (1986). An analysis of addition and subtraction word problems in U.S. and Soviet elementary mathematics textbooks. *Cognition and Instruction*, 3(3), 153-171.
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- Miller, K. F. and Stigler, J. W. (1987). Counting in Chinese: Cultural variation in a basic cognitive skill. *Cognitive Development*, 2, 279-305.
- Stigler, J. W. and Perry, M. (1988). Cross-cultural studies of mathematics teaching and learning: Recent findings and new directions. In D. Grouws and T. Cooney (Eds.), *Effective mathematics teaching*. Hillsdale, NJ: Erlbaum.
- Fuson, K. C., Stigler, J. W., and Bartsch, K. (1988). Grade placement of addition and subtraction topics in Mainland China, Japan, the Soviet Union, Taiwan, and the United States. *Journal for Research in Mathematics Education*, Volume 19, Number 5, 449-456.
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- Stigler, J. W. and Perry, M. (1988). Mathematics learning in Japanese, Chinese, and American classrooms. In G. Saxe & M. Gearhart (Eds.), *Children's mathematics*. San Francisco: Jossey-Bass, 27-54. [Reprinted in J. W. Stigler, R. A. Shweder, & G. Herdt (Eds.), *Cultural psychology: Papers from the Chicago Symposia on Culture and Human Development*. New York: Cambridge University Press, 1989.]
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- Baranes, R., Perry, M., and Stigler, J. W. (1989). Activation of real-world knowledge in the solution of word problems. *Cognition and Instruction*, 6(4), 287-318.
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- Stigler, J. W. (1989). Review of Alan J. Bishop, *Mathematical enculturation: A cultural perspective on mathematics education* (Dordrecht: Kluwer Academic Publishers, 1988). *Journal for Research in Mathematics Education*, 20(4), 367-370.
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- Miller, K. F. and Stigler, J. W. (1991). Conceptual transparency and the abacus: A paradox of expertise. *Cognition and Instruction*, 8(1), 29-67.
- Stigler, J. W. (1991). Individuals, institutions, and academic achievement. In P. Bordieu and J. Coleman (Eds.), *Social theory in a changing society*. New York: Westview Press.
- Stigler, J. W. and Stevenson, H. W. (1991). How Asian teachers polish each lesson to perfection. *American Educator*, Spring.
- Fernandez, C., Yoshida, M., and Stigler, J. W. (1992). Learning mathematics from classroom instruction: On relating lessons to pupils' interpretations. *Journal of the Learning Sciences*, 2(4), 333-365.
- Yoshida, M., Fernandez, C., and Stigler, J. W. (1993). Japanese and American students' differential recognition of teachers' statements during a mathematics lesson. *Journal of Educational Psychology*, 85(4), 1-8.
- Stigler, J. W. and Miller, K. F. (1993). A Good Match is Hard to Find: Comment on Mayer, Tajika & Stanley (1991). *Journal of Educational Psychology*, 85(3), 1-6.
- Stigler, J. W., & Fernandez, C. (1995). Learning mathematics from classroom instruction: Cross-cultural and experimental perspectives. In C. Nelson (Ed.), *Contemporary perspectives on learning and development; Twenty-Seventh Minnesota Symposium on Child Psychology*. Hillsdale, NJ: Lawrence Erlbaum Associates. Pp. 103-130.

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- Stigler, J. W., Fernandez, C., and Yoshida, M. (1996). Cultures of mathematics instruction in Japanese and American elementary classrooms. In T. Rohlen and G. Le Tendre (Eds.), *Teaching and learning in Japan*. New York: Cambridge University Press. Pp. 213-247.
- Jacobs, J.K., Yoshida, M., Fernandez, C. & Stigler, J.W. (1996). Japanese and American teachers' implicit theories of mathematics learning and instruction. In G.W. Cottrell (Ed.), *Proceedings of the Eighteenth Annual Conference of the Cognitive Science Society*. New Jersey: Erlbaum.
- Stigler, J. W. (1996). Large-scale video surveys for the study of classroom processes. In G. Hoachlander, J. E. Griffith, and J. H. Ralph (Eds.), *From data to information: New directions for the National Center for Education Statistics*. U.S. Dept. of Education, National Center for Education Statistics. Pp. 7-1 to 7-29.
- Stigler, J. W., & Hiebert, J. (1996). *TIMSS Videotape Classroom Study*. Address: www.ed.gov/NCES/timss/video.
- Jacobs, J.K., Yoshida, M., Stigler, J.W., & Fernandez, C. (1997). Japanese and American teachers' evaluations of mathematics lessons: A new technique for exploring beliefs. *Journal of Mathematical Behavior*, 16 (1), 7-24.
- Stigler, J. W. & Hiebert, J. (1997). Understanding and improving classroom mathematics instruction: An overview of the TIMSS video study. *Phi Delta Kappan*, 79 (1), 14-21.
- Stigler, J. W. (1998). Video surveys: New data for the improvement of classroom instruction. In S. G. Paris and H. M. Wellman (Eds.), *Global prospects for education: Development, culture, and schooling*. Washington, DC: American Psychological Association. Pp. 129-168.
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- Stigler, J. W. and Hiebert, J. (1998). The TIMSS Videotape Study. *American Educator*, 22 (4), 7; 43-45.
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- Stigler, J. W., & Hiebert, J. (2017). The culture of teaching: A global perspective. In A. Motoko & G. K. LeTendre (Eds.), *International handbook of teacher quality and policy*. New York: Routledge, pages 52-65.

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Son, J. Y., Ramos, P., DeWolf, M., Loftus, W. & Stigler, J. W. (2018). Exploring the practicing-connections hypothesis: using gesture to support coordination of ideas in understanding a complex statistical concept. *Cognitive Research: Principles and Implications* [2365-7464], 3:1 (1-13). doi: 10.1186/s41235-017-0085-0

Givvin, K.B. & Stigler, J.W. (in press). How teachers introduce algebra and how it might affect students' beliefs about what it means to "do" mathematics.

Presentations

Language use and literacy in a bilingual context. Paper presented at Annual Meetings of the American Anthropological Association, Washington, D.C., December, 1980. (With A.L. Tsao.)

Reading achievement among Chinese, Japanese and American school children. Invited symposium at International Conference of Association for Children with Learning Disabilities, Atlanta, February, 1981. (With H.W. Stevenson, S.Y. Lee, and G.W. Lucker.)

Culture, orthography, and reading: Lessons from Chinese and English. Symposium at Biennial Meetings of the Society for Research in Child Development, Boston, April, 1981. (With H.W. Stevenson, S.Y. Lee, and G.W. Lucker.)

Cultural factors in achievement: A cross-national study. Invited symposium at Biennial Meetings of the International Society for the Study of Behavioral Development, Toronto, August, 1981. (With H.W. Stevenson and S.Y. Lee.)

Parent and family factors in young children's success in school--research in Japan, Taiwan, and the United States. Invited symposium at the Annual Conference of the National Association for the Education of Young Children, Detroit, November, 1981. (With H.W. Stevenson, G.W. Lucker, and S.Y. Lee.)

Internal representation of a cognitive skill: The effect of abacus training on Chinese children's mental calculation. Paper presented at Biennial Meetings of the Society for Research in Child Development, Detroit, April, 1983. (Chair of paper session.)

Mathematics achievement. Paper presented at conference on Child Development in Japan and the United States, Center for Advanced Study in the Behavioral Sciences, Stanford, California, April, 1983. (With H.W. Stevenson, S.Y. Lee, and S. Kitamura.)

Learning to read Chinese. Paper presented at National Academy of Sciences - Chinese Academy of Sciences Joint Psychology Conference: Issues in Cognition, Racine, Wisconsin, August, 1983. (With S.Y. Lee and H.W. Stevenson.)

The consequences of skill: Abacus training in Taiwan. Paper presented at the Annual Meetings of the American Educational Research Association, New Orleans, April, 1984.

Schooling and cognitive development: The case of abacus training in Taiwan. Paper presented at the International Congress of Psychology, Acapulco, Mexico, August, 1984.

- The Chinese advantage in short-term memory for numbers. Paper presented at Biennial Meetings of the Society for Research in Child Development, Toronto, April, 1985.
- The presentation of word problems in U.S. and Soviet elementary mathematics textbooks. Paper presented at Annual Meetings of the American Educational Research Association, San Francisco, April, 1986.
- A comparative study of elementary mathematics classrooms in Japan, Taiwan, and the United States. Poster presented at the Biennial Meetings of the Society for Research in Child Development, Baltimore, April, 1987. (With M. Perry.)
- The effects of abacus skill on children's concept of number. Paper presented as part of symposium on "Tools for Thought" at Biennial Meetings of the Society for Research in Child Development, Baltimore, April, 1987.
- Classroom mathematics practices in three cultures. Paper presented at the Biennial Meetings of the International Society for the Study of Behavioral Development, Tokyo, July, 1987.
- Learning mathematics in Japanese, Chinese, and American classrooms. Paper presented at the Annual Meetings of the American Association for the Advancement of Science, Boston, February, 1988.
- Mathematics teaching in Japan, Taiwan, and the United States. Paper presented at the Annual Meetings of the Chicago Association for the Education of Young Children, Chicago, February, 1988.
- Age differences in speed of processing the meaning of numerals. Poster presented at the Annual Meetings of the Psychonomics Society, Chicago, November, 1988. (With S. F. Tang.)
- Activation of real-world knowledge in the solution of word problems. Poster presented at the Biennial Meetings of the Society for Research in Child Development, Kansas City, April, 1989. (With R. Baranes.)
- Cultural psychology. Invited symposium at Biennial Meetings of the Society for Research in Child Development, Kansas City, April, 1989. (Co-organizer with R. A. Shweder.)
- Ethnicity and academic achievement. Discussant on symposium organized by J. Bempechat at Biennial Meetings of the Society for Research in Child Development, Kansas City, April, 1989.
- Individuals, institutions, and academic achievement. Invited talk at conference on "Social Theory in a Changing Society," organized by Pierre Bordieu and James Coleman. Chicago, April, 1989.
- Accessing informal knowledge in school: The case of word problems. Paper presented at the meetings of the International Association of Applied Psychology, Kyoto, Japan, July, 1990. (With R. Baranes and Suk-Fong Tang.)

- Factors influencing children's comprehension of a mathematics lesson. Paper presented at Annual Meetings of the American Psychological Association, Boston, August, 1990. (With R. Baranes.)
- Japanese and American children's on-line comprehension of a mathematics lesson. Poster presented at the Annual Meetings of the Psychonomics Society, New Orleans, November, 1990. (With C. Fernandez and M. Yoshida.)
- Learning mathematics from classroom instruction: Cross-cultural and experimental perspectives. Invited address at the Annual Meetings of the American Educational Research Association, Chicago, April, 1991.
- The mental and social life of categories. Invited symposium, Society for Psychological Anthropology meetings, Chicago, October, 1991.
- Structure versus variety in concrete representations of number. Paper presented at Annual Meetings of the Psychonomics Society, San Francisco, November, 1991. (With S. F. Tang.)
- Opportunities for student thinking during mathematics instruction in Japanese and American classrooms. Paper presented at conference on Teaching and Learning in Japan, Marin County, April, 1992.
- Transforming teaching by focusing on student thinking: Similarities between CGI and Japanese classrooms. Paper presented at Annual Meetings of the American Educational Research Association, San Francisco, April, 1992.
- Traditions of school mathematics in Japanese and American elementary classrooms. Paper presented at Annual Meetings of the International Congress on Mathematical Education, Quebec City, August, 1992.
- Social influences on mathematics learning: Three issues. Paper presented at Biennial Meetings of the Society for Research in Child Development, New Orleans, March, 1993.
- Whither cognitive development in the 1990s. Invited symposium, Biennial Meetings of the Society for Research in Child Development, New Orleans, March, 1993.
- Effects of instructional style on students' processing of classroom events. Paper presented at Annual Meetings of the Psychonomics Society, Washington, DC, November, 1993. (With C. Fernandez.)
- Japanese and American teachers' responses to foreign and familiar mathematics lessons. Paper presented at the Society for Cross-Cultural Research Annual Meeting, Santa Fe, New Mexico, February, 1994. (Jacobs, J.K., Yoshida, M., Lippey, H., Fernandez, C., & Stigler, J.)
- American and Japanese teachers' theories of mathematics instruction and classroom practices. Poster presented at the American Educational Research Association Annual Meeting, New Orleans, Louisiana, April, 1994. (Jacobs, J.K., Yoshida, M., Lippey, H., Fernandez, C., & Stigler, J.)

- Learning mathematics from classroom instruction: Cross-cultural and experimental perspectives. Invited address to Annual Meetings of the Midwestern Psychological Association, Chicago, IL, May 6, 1994.
- Learning mathematics from classroom. Keynote address to Mathematics Education Research Group of Australasia, Lismore, Australia, July 5, 1994.
- High- and low-achiever's on-line processing of a mathematics lesson. Paper presented at Biennial Meetings of the Society for Research in Child Development, Indianapolis, March, 1995. (With Krysten Nguyen, Anthony Gabriele, and Clea Fernandez.)
- Student's use of time to reflect during a mathematics lesson: Effects on high- and low-knowledge students' lesson comprehension and learning. Paper presented at Annual Meetings of the American Educational Research Association, San Francisco, April, 1995. (With Anthony Gabriele, Krysten Nguyen, and Clea Fernandez.)
- Cultural influences on the acquisition of academic skills. Invited address to McDonnell Foundation conference on Cognitive Neuroscience and Education, Eugene, Oregon, June 1-2, 1995. (Organized by Michael Posner, address available commercially on videotape.)
- Large-scale video surveys for the study of classroom processes. Paper presented to conference on New Indicators of Educational Processes, National Center for Education Statistics, Washington, DC, June 21, 1995.
- Mathematics Learning: Effect of Different Teaching Styles. Presented at the Fourth AIRIPA National Conference, Trieste, Italy, October, 1995. (Santagata, R., Fernandez, C., & Stigler, J. W.)
- The TMSS video study: A methodological introduction. Invited symposium, Research Pre-session, National Council of Teachers of Mathematics, San Diego, April, 1996.
- Japanese and American teachers' implicit theories of mathematics learning and instruction. Poster presented at the Cognitive Science Society Annual Conference, San Diego, California, July, 1996. (Jacobs, J.K., Yoshida, M., Fernandez, C., & Stigler, J.)
- Mathematics teaching in three cultures: An overview of the TIMSS video study. Invited symposium at Annual Meetings of the American Mathematical Society, San Diego, January, 1997.
- Mathematics teaching in Germany, Japan, and the United States: What we can learn from the TIMSS video study. Invited address, National Research Council, Washington, DC, February, 1997.
- Improving classroom instruction: Lessons from the TIMSS video study. Invited address, American Federation of Teachers, Washington, DC, February, 1997.
- Classroom mathematics instruction in Germany, Japan, and the United States: An introduction to the TIMSS videotape classroom study. Paper presented at Annual Meetings of the American Educational Research Association, Chicago, March, 1997.

- Reflection as a tool to elicit teachers' beliefs in Japan and the United States. Paper presented at the American Educational Research Association Annual Meeting, Chicago, Illinois, March, 1997. (Jacobs, J.K., Morita, E., Yoshida, M., Fernandez, C., & Stigler, J.)
- Developing indicators of teaching from videotape observations. Paper presented at Annual Meetings of the American Educational Research Association, Chicago, March, 1997.
- Cultures in the classroom: Mathematics instruction in Germany, Japan, and the United States. Paper presented at Twenty-Seventh Annual Symposium of the Jean Piaget Society, Los Angeles, June, 1997.
- Discourse in Japanese and American mathematics classrooms. Paper presented at Twenty-Seventh Annual Symposium of the Jean Piaget Society, Los Angeles, June, 1997. (Kawanaka, T and Stigler, J.)
- Assessing Japanese and American teachers' beliefs about mathematics instruction. Poster presented at Twenty-Seventh Annual Symposium of the Jean Piaget Society, Los Angeles, CA, June, 1997. (Jacobs, J.K., Morita, E., & Stigler, J.)
- Mathematics teaching in three cultures: Implications of the TIMSS video study for improving classroom practice. Invited address, National Council of Teachers of Mathematics, Minneapolis, April, 1997.
- Methods and Findings from the TIMSS Video Study. Paper presented at the meetings of the European Association of Research on Learning and Instruction, Athens, August, 1997.
- The Analysis of Classroom Instruction: the TIMSS Perspective. Paper presented at the annual Research Pre-session of the National Council of Teachers of Mathematics, Washington, DC, April, 1998.
- The Role of Classroom Video in Teacher Professional Development. Paper presented at the Annual Meetings of the American Educational Research Association, San Diego, April, 1998.
- TIMSS Video Study: An Overview. Paper presented at the Annual Meetings of the American Educational Research Association, San Diego, April, 1998.
- Culture and Mathematics Teaching. Invited address, International Congress of Mathematics, Berlin, August, 1998.
- Japanese Lesson Study: Discussion of Tsuchida, Lewis, and Yoshida. Paper presented at the Annual Meetings of the American Educational Research Association, Montreal, April, 1999.
- Developing Classroom Process Data for the Improvement of Teaching. Paper presented at the Annual Meetings of the American Educational Research Association, Montreal, April, 1999.
- Teaching Mathematics: Italian Lessons from a Cross-Cultural Perspective. Paper presented at the Annual Meetings of the American Educational Research Association, Montreal, April, 1999. (Santagata, R., & Stigler, J. W.)

- Bringing students to the Blackboard: The Role of Culture in Italian Mathematics Lessons. Jean Piaget Society Conference, Mexico City, Mexico, June, 1999. (Santagata, R., & Stigler, J. W.)
- Discussion: Making Use of Implicit Knowledge to Teach. Paper presented at Biennial Meetings of the Society for Research in Child Development, Albuquerque, April, 1999.
- What makes writing well-written: An examination of strong and weak writers' knowledge about text. Cognitive Science Society, Vancouver, August, 1999. (Thadani, R., Albertson, K., & Stigler, J.)
- Mathematical Concepts in German, Japanese, United States, and Italian Lessons: Four Different Ways to Do Mathematics. Paper presented at the Annual Meeting of the American Psychological Society, Miami, June, 2000. (Santagata, R., Barbieri, A., & Stigler, J. W.)
- The Cultural Aspect of Teaching: Results from a Cross-Cultural Analysis of Italian Mathematics Lessons Paper presented at the Annual Meeting of the American Psychological Society, Miami, June, 2000. (Barbieri, A., Santagata, R., & Stigler, J. W.)
- Spontaneous use of analogy: structuring conceptual development in mathematics. Poster session at Biennial Meetings of the Society for Research in Child Development Biennial Meeting, Minneapolis, April, 2001. (Engle, L.K. Holyoak, K.J.; Stigler, J.W.)
- Automated Classification of Lessons into Countries Using TIMSS-R Video Codes. Paper presented at Annual Meetings of the American Educational Research Association, Chicago, April, 2003. (Lambert, B.L., Yu, C., Stigler, J.W., & Gallimore, R.)
- Using Video Surveys to Study Classroom Processes. Invited paper presented at the CPRE Conference on Measurement of Instruction. Washington, DC, January, 2004.
- Improving Mathematics Teaching: Lessons from the TIMSS 1999 Video Study. Keynote address presented at Annual Meetings of the Association for State Supervisors of Mathematics. Anaheim, CA, April, 2005.
- Improving Mathematics Teaching: A Journey Beyond TIMSS Video. Keynote address presented at Annual Meetings of the National Council of Supervisors of Mathematics. Anaheim, CA, April, 2005.
- Rich problems as a lever for change: An experimental study of the effects of a PD program on students' mathematics learning. Institute of Education Sciences Conference, Washington DC., June, 2006. (Santagata, R., Stigler, J., Givvin, K., & Kersting N.)
- Teachers' Analysis of Classroom Video as a Predictor of Students' Mathematics Learning: Further Explorations of a Novel Measure of Teacher Knowledge. Paper presented at Annual Meetings of the American Educational Research Association, San Diego, April, 2009. (Kersting, N., Givvin, K., Santagata, R., Sotelo, F., & Stigler, J.W.)

- Learning mathematics from video games: How can we enhance conceptual understanding as well as procedural fluency? Paper presented at Annual Meetings of the American Educational Research Association, Denver, April, 2010. (Thompson, B., Lee, H., Stigler, J. & Holyoak, K.)
- Video analysis as a method for developing preservice teachers' beliefs about teaching and their understanding of children, pedagogy, and assessment. Discussion presented at Annual Meetings of the American Educational Research Association, Denver, April, 2010.
- Using videogames to foster learning of inter-related math concepts. Poster presented at IES Annual Conference, Washington DC, June, 2010. (Thompson, B., Lee, H., Stigler, J. & Holyoak, K.)
- Capturing teacher knowledge: Exploring the Classroom Video Analysis (CVA) measure's relationship to teaching quality and student learning. Poster presented at IES Annual Conference, Washington DC, June, 2010. (Kersting, N., Sutton, T., Chen, M., & Stigler, J.)
- Using videogames to foster learning of inter-related math concepts. Poster presented at International Conference on the Learning Sciences, Chicago, June, 2010. (Lee, H., Thompson, B., Stigler, J. & Holyoak, K.)
- Value-added teacher estimates as part of teacher evaluations: Exploring properties of value-added scores from a psychometric perspective. Paper presented at Annual Meetings of the American Educational Research Association, New Orleans, April, 2011. (Kersting, N.B., Chen, M., Choi, K., & Stigler, J.)
- Exploring the effects of lesson analysis on instructional quality and student learning. Paper presented at Annual Meeting of the Society for Research in Educational Effectiveness, Washington, DC, September, 2011. (Stigler, J.W., Kersting, N.B. & Roth, K.)
- Relating mathematics teachers' value-added scores to teacher knowledge, instructional quality, and a project-developed student learning measure. Paper presented at Annual Meetings of the American Educational Research Association, Vancouver, British Columbia, April, 2012. (Kersting, N.B., Stigler, J.W.)
- Using teachers' analyses of teaching to measure usable knowledge for teaching ratios, proportions, variables, expressions, and equations. Paper presented at Annual Meetings of the American Educational Research Association, Vancouver, British Columbia, April, 2012. (Kersting, N.B., Stigler, J.W.)
- Fragmented analogies from procedural understanding of mathematics. Symposium presentation at the 34th Annual Meeting of the Cognitive Science Society, Sapporo, Japan, 2012. (Son, J.Y., & Stigler, J.W.)
- Does MET + VAE = Improved Teaching? Presentation to National Research Council Board on Testing and Assessment, Irvine, CA, May, 2012.
- Explanations and fractions: How preferences for types of explanations affect learning. Poster presented at the Annual Meeting of the Cognitive Science Society, Berlin, Germany, 2013. (Geller, E.H., Son, J.Y., & Stigler, J.W.)

Exploring the Reliability and Validity of Computer-Generated Scores to Improve the Scoring Process of the Classroom Video Analysis Assessments. Paper presented at Annual Meetings of the American Educational Research Association, Philadelphia, April, 2014. (Kersting, N. B., Sherin, B., & Stigler, J. W.)

Struggle in the Age of MOOCs. Plenary talk at ASU+GSV Summit for Education Innovation, Scottsdale, AZ, April, 2014.

Explanations and Understanding of Fractions. Paper presented at the Annual Meetings of the American Psychological Society, San Francisco, CA, May, 2014. (Geller, E.H., Son, J.Y. & Stigler, J.W.)

Learning in the Age of MOOCs: Prompts Improve Understanding of Video Instruction. Poster presented at the Annual Meetings of the American Psychological Society, San Francisco, CA, May, 2014. (Rivas, M.J., Son, J.Y., Tikkanen, W. & Stigler, J.W.)

Walker, J. M., Cheng, P. W., & Stigler, J. W. (2014, January). Equations are effects: Using causal contrasts to support algebra learning. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 36, No. 36).

Using Advance Organizers to Improve Learning from Video. Annual Meeting of the Cognitive Science Society, Pasadena, CA, July, 2015. (Geller, E.H. & Stigler, J.W.)

Extending the CVA into a Content-focused, Common Core Aligned Measure of Mathematics Knowledge for Teaching. Paper presented at the Annual Meetings of the American Educational Research Association, Washington, D.C., April, 2016. (Kersting, N. B., Chen, M.-K., Lozano, G., Heshmati, S., Stoehr, K. J., & Stigler, J. W.)

Stop, Drop, and Think: Improving Students' Performance by Blocking the Compulsion to Calculate. Poster presented at the Biennial Meetings of the Society for Research in Child Development, Austin, TX, April, 2017. (Veronika Moroz, V., Loftus, W. & Stigler, J.W.)

The Story of Statistics: Using a Narrative Framework to Provide Explicit Connections in Statistics. Paper presented at the Carnegie Math Pathways National Forum, San Francisco, CA, July, 2017. (Son, J.Y. & Stigler, J.W.)

Modeling First: A Modeling Approach To Teaching Introductory Statistics. Paper presented at International Conference on the Teaching of Statistics, Kyoto, Japan, July, 2018. (Stigler, J.W. & Son, J.Y.)

Patent

Method and system for interactive case and video-based teacher training. U.S. Patent 6,904,263. Issued June 7, 2005.