

CURRICULUM VITAE

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EDUCATIONAL BACKGROUND

Ph.D., Curriculum and Instruction, University of Wisconsin, Madison, Wisconsin, June 1979.

Major: Mathematics Education
Minors: Mathematics, Cognitive Development

M.A., Mathematics, University of Illinois, Urbana, Illinois, August 1972.

B.A., Mathematics, Fresno Pacific College, Fresno, California, June 1970.

PROFESSIONAL EXPERIENCE

Robert J. Barkley Professor of Education, University of Delaware, 2001-present.

H. Rodney Sharp Professor of Education, University of Delaware, 1995-2001

Assistant/Associate/Full Professor, Department of Educational Development, University of Delaware, 1982-1995.

Assistant Professor, Department of Curriculum and Instruction, University of Kentucky, 1979-1982.

Project Assistant, Research and Development Center for Education Research, University of Wisconsin-Madison, 1976-1979.

Mathematics Teacher, Clovis High School, Clovis, California, 1972-1974.

Teaching Assistant, Department of Mathematics, University of Illinois, 1970-1971.

GRANTS

- Berk, D., & Hiebert, J. (co-PI). *Understanding the Effects of Mathematics Teacher Preparation on the Quality of Classroom Teaching and Students' Learning*. National Science Foundation Grant, September 1, 2014 – August 31, 2017. (\$1,024,676)
- Berk, D., Hiebert, J. (co-PI), & Flores, A. *A Longitudinal Study of the Effects of K-8 Mathematics Teacher Preparation on Teacher Knowledge, Teaching Practices, and Student Learning*. National Science Foundation Grant, August 1, 2009 – July 31, 2014 (\$1,983,506).
- Hiebert, J. (University of Delaware PI). *Mid-Atlantic Center for Mathematics Teaching and Learning* (with University of Maryland and Pennsylvania State University). National Science Foundation. Subcontract through University of Maryland, September 1, 2005 – August 31, 2013 (\$3,096,712).
- Hiebert, J. (University of Delaware PI). *Mid-Atlantic Center for Mathematics Teaching and Learning* (with University of Maryland and Pennsylvania State University). National Science Foundation. Subcontract through University of Maryland, August 1, 2000 – July 31, 2005 (\$2,458,865).
- Hiebert, J. *Teaching and learning with understanding: A synthesis*. Office of Educational Research and Improvement, Subcontract through the National Center for Research in Mathematical Sciences Education, University of Wisconsin, December 1, 1994 - November 30, 1995 (\$34,690).
- Hiebert, J., & Wearne, D. *Long term teacher and student effects of conceptually-based instruction in mathematics: Follow-up*. Office of Educational Research and Improvement, Subcontract through the National Center for Research in Mathematical Sciences Education, University of Wisconsin, July 1, 1992 - June 31, 1993 (\$30,330).
- Hiebert, J., & Wearne, D. *Long term effects of conceptually-based instruction in mathematics*. National Science Foundation Grant (No. 8855627), September 1, 1989 - March 15, 1993 (\$353,558).
- Hiebert, J. *Research agenda in mathematics education*. National Science Foundation Grant (No. MDR 8550614, Subcontract through San Diego State University), July 1, 1986 - June 30, 1988 (\$12,738).
- Hiebert, J., & Wearne, D. C. *Instruction and cognitive change in mathematics: Learning decimal numbers*. National Science Foundation Grant (No. MDR 8651552), August 15, 1986 - January 31, 1990 (\$178,226).
- Wearne, D. C., & Hiebert, J. *Learning decimal numbers: A study of knowledge acquisition*. National Institute of Education Grant (No. 3406291502), September 30, 1983 - September 29, 1985 (\$73,936).

Hiebert, J., & Wearne, D. C. *Children's understanding of decimal numbers*. National Science Foundation Grant (No. SED-8109731), June 1, 1981 - November 30, 1983 (\$114,459).

PUBLICATIONS

2018

Ferretti, R.P., & Hiebert, J. (Eds.). (2018). *Teachers, teaching, and reform: Perspectives on efforts to improve educational outcomes*. New York: Routledge.

Hiebert, J., Morris, A. K., & Spitzer, S. M. (2018). Diagnosing learning goals: An often overlooked teaching competency. In T. Leuders, K. Philipp, & J. Leuders (Eds.), *Diagnostic competence of mathematics teachers: Unpacking a complex construct in teacher education and teacher practice* (pp. 193-206). New York: Springer.

Hiebert, J., Wieman, R. M., & Berk, D. Designing systems for continuously improving instruction: The case of teacher preparation mathematics courses. In R. P. Ferretti & J. Hiebert (Eds.), *Teachers, teaching, and reform: Perspectives on efforts to improve educational outcomes* (pp. 116-139). New York: Routledge.

Stigler, J. W., Hiebert, J., & Givvin, K. B. (2018). Does VAM + MET = improved teaching? In R. P. Ferretti & J. Hiebert (Eds.), *Teachers, teaching, and reform: Perspectives on efforts to improve educational outcomes* (pp. 56-74). New York: Routledge.

2017

Cai, J., Morris, A., Hohensee, C., Hwang, S., Robison, V., & Hiebert, J. (2017). [Series of 5 editorials, 1 per issue, on increasing the impact of research on practice.] *Journal for Research in Mathematics Education*, 48 (1, 2, 3, 4, 5).

Ermeling, B. A., Gallimore, R., & Hiebert, J. (2017). Making teaching visible through learning opportunities. *Phi Delta Kappan*, 98(8), 54-58.

Hiebert, J. (2017). The unfortunate reputation of scripted instruction. *Teachers College Record*, Online, December 12, <http://www.tcrecord.org/Content.asp?ContentID=22211>

Hiebert, J., Miller, E., Berk, D. (2017). Relationships between mathematics teacher preparation and graduates' analyses of classroom teaching. *Elementary School Journal*, 117, 687-707.

Hiebert, J., & Stigler, J. W. (2017). Teaching vs. teachers as a lever for change: Comparing a Japanese and a U.S. perspective on improving instruction. *Educational Researcher*, 46, 169-176.

Morris, A. K., & Hiebert, J. (2017). Effects of teacher preparation courses: Do graduates use what they learned to plan mathematics lessons? *American Educational Research Journal*, 54, 524-567.

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* (pp. 52-65). New York: Routledge.

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Ermeling, B., Hiebert, J., & Gallimore, R. (2016). Beyond growth mindset: Creating classroom opportunities for meaningful struggle. *Education Week: Spotlight on growth mindset*, 13-14. <http://www.edweek.org/ew/marketplace/products/spotlight-on-growth-mindset.html> [Reprinted from *Education Week Teacher*.]

Stigler, J. W., & Hiebert, J. (2016). Lesson study, improvement, and the importing of cultural routines. *ZDM Mathematics Education*, 48, 581-587.

2015

Ermeling, B., Hiebert, J., & Gallimore, R. (2015, December 7). Beyond growth mindset: Creating classroom opportunities for meaningful struggle. *Education Week Teacher*. <http://www.edweek.org/tm/articles/2015/12/07/beyond-growth-mindset-creating-classroom-opportunities-for.html>

Ermeling, B., Hiebert, J., & Gallimore, R. (2015). Best practice: The enemy of better teaching. *Educational Leadership*, 72 (8), 48-53.

Morris, A. K., & Hiebert, J. (2015). Openness and measurement: Two principles for improving educational practice and shared instructional products. *Mathematics Teacher Educator*, 3, 130-153.

2014

Gallimore, R., & Hiebert, J. (2014, February 28). Red flags on the road to the Common Core State Standards reform. *Teachers College Record*. <http://www.tcrecord.org/PrintContent.asp?ContentID=17451>.

Gallimore, R., Hiebert, J., Ermeling, B. (2014, October 14). Rich classroom discourse: One way, not *the way*, to get rich learning. *Teachers College Record*. <http://www.tcrecord.org/Content.asp?ContentId=17714>

Hiebert, J., & Grouws, D. A. (2014). Which instructional methods are most effective for mathematics? In R. E. Slavin (Ed.), *Proven programs in education: STEM* (pp. 14-17). Corwin Press. [Reprinted from Hiebert, J., & Grouws, D. (2009). Which teaching methods are most effective for maths? *Better: Evidence-based Education*, 2 (1), 10-11.]

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Hiebert, J. (2013). Lektionsplanering: Ny verksamhet i gammal form. [Lesson planning reconsidered: Creating a new function for an old form.] In Walby, K. (Ed.), *Matematikundervisning i praktiken* [Mathematics teaching in practice], pp. 49-54. Gotesborg, Sweden: Nationellt centrum for matematikutbildning. [Reprinted from *Nämnaaren*, 29(1), 53-57.]

Hiebert, J. (2013). Transforming teacher preparation to ensure long-term improvement in STEM teaching. *Teacher Education and Practice*, 26, 830-843.

Hiebert, J. (2013). The constantly underestimated challenge of improving mathematics instruction. In K. R. Leatham (Ed.), *Vital directions for mathematics education research* (pp. 45-56). New York: Springer.

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Hiebert, J., & Morris, A. K. (2012). Teaching, rather than teachers, as a path toward improving classroom instruction. *Journal of Teacher Education*, 63, 92-102.

Hiebert, J. & Morris, A. K. (2012). Extending ideas on improving teaching: Response to Lampert; Lewis, Perry, Friedkin, & Roth; and Zeichner. *Journal of Teacher Education*, 63, 383-385.

2011

Morris, A. K., & Hiebert, J. (2011). Creating shared instructional products: An alternative approach to improving teaching. *Educational Researcher*, 40, 5-14.

2010

Hiebert, J., Morris, A. K., & Glass, B. (2010). Learning to learn to teach: An “experiment” model for teaching and teacher preparation in mathematics. In A. Bishop (Ed.). *Mathematics education* (Vol. 2, pp. 126-143). London: Routledge. [Reprinted from *Journal of Mathematics Teacher Education* (2003), 6, 201-222.]

2009

Berk, D., & Hiebert, J. (2009). Improving the mathematics preparation of elementary teachers, one lesson at a time. *Teachers and Teaching: Theory and Practice*, 15, 337-356.

Givvin, K. B., Jacobs, J., Hollingsworth, H., & Hiebert, J. (2009). What is effective mathematics teaching? International educators’ judgments of mathematics lessons from the TIMSS 1999 Video Study. In J. Cai, G. Kaiser, B. Perry, & N.-Y. Wong (Eds.), *Effective mathematics teaching from teachers’ perspectives: National and cross-national studies* (pp. 37-69). Boston: Sense Publishers.

- Hiebert, J. (2009). Foreword. In M. K. Stein, M. S. Smith, M. A. Henningsen, and E. A. Silver (Eds.), *Implementing standards-based mathematics instruction: A casebook for professional development* (2nd ed.). New York: Teachers College Press.
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- Hiebert, J., & Morris, A. K. (Eds.). (2009). Building a knowledge base for educating (mathematics) teachers [Special issue]. *Elementary School Journal*, 109(5).
- Hiebert, J., & Morris, A. K. (2009). Building a knowledge base for teacher education: An experience in K-8 mathematics teacher preparation. *Elementary School Journal*, 109, 475-490.
- Morris, A. K., & Hiebert, J. (2009). Introduction: Building knowledge bases and improving systems of practice. *Elementary School Journal*, 109, 429-441.
- Morris, A. K., Hiebert, J., & Spitzer, S. M. (2009). Mathematical knowledge for teaching in planning and evaluating instruction: What can preservice teachers learn? *Journal for Research in Mathematics Education*, 40, 491-529.
- Stigler, J. W., & Hiebert, J. (2009). Closing the teaching gap. *Kappan*, 91(3), 32-37.
- Stigler, J. W., & Hiebert, J. (2009). *The teaching gap: Best ideas from the worlds' teachers for improving education in the classroom* (paperback ed.). New York: Free Press.

2008

- Hiebert, J., Lambdin, D., & Williams, S. (2008). Reflecting on the conference and looking toward the future. In R. E. Reys & J. A. Dossey (Eds.), *U.S. doctorates in mathematics education: Developing stewards of the discipline* (pp. 241-252). Providence, RI: American Mathematical Society.
- Hiebert, J. (2008). Signposts for teaching mathematics through problem solving. In J. M. Bay-Williams & K. Karp (Eds.), *Growing professionally: Readings from NCTM publications for grades K-8*, pp. 102-107. Reston, VA: National Council of Teachers of Mathematics. [Reprinted from Lester, F. K. Jr. (Ed.). (2003). *Teaching mathematics through problem solving: Prekindergarten – Grade 6* (pp. 53-61). Reston, VA: National Council of Teachers of Mathematics.]

2007

- Hiebert, J., & Grouws, D. A. (2007). The effects of classroom mathematics teaching on students' learning. In F. K. Lester, Jr., (Ed.), *Second handbook of research on mathematics teaching and learning* (pp. 371-404). Charlotte, NC: Information Age Publishing.

Hiebert, J., & Grouws, D. A. (2007). *Effective teaching for the development of skill and conceptual understanding of number: What is most effective?* Research Brief for NCTM. Reston, VA: National Council of Teachers of Mathematics.

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2006

Jacobs, J. K., Hiebert, J., Givvin, K. B., Hollingsworth, H., Garnier, H., & Wearne, D. (2006). Does eighth-grade mathematics teaching in the United States align with the NCTM Standards? Results from the TIMSS 1995 and 1999 video studies. *Journal for Research in Mathematics Education*, 37, 5-32.

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Hiebert, J., Gallimore, R., & Stigler, J. W. (2004). Opening classroom doors: Heroes for the good of the profession. *American Educator*, 28 (1), 28. [Reprinted from: The new heroes of teaching: Opening classroom doors for the good of the profession. *Education Week*, 23 (10), 56, 42.]

Hiebert, J., & Stigler, J. W. (2004). A world of difference: Classrooms abroad provide lessons in teaching math and science. *Journal of Staff Development*, 25 (4), 10-15.

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2003

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., Tseng, E., Etterbeek, W., Manaster, C., Gonzales, P., & Stigler, J. W. (2003). Understanding and improving mathematics teaching: Highlights from the TIMSS 1999 Video Study. *Phi Delta Kappan*, 84, 768-775.

Hiebert, J., Morris, A. K., & Glass, B. (2003). Learning to learn to teach: An “experiment” model for teaching and teacher preparation in mathematics. *Journal of Mathematics Teacher Education*, 6, 201-222.

Hiebert, J. (2003). What research says about the NCTM Standards. In J. Kilpatrick, W. G. Martin, & D. Schifter (Eds.), *A research companion to Principles and Standards for School Mathematics* (pp. 5-23). Reston, VA: National Council of Teachers of Mathematics.

Hiebert, J. (2003). Signposts for teaching mathematics through problem solving. In F. K. Lester, Jr. (Ed.), *Teaching mathematics through problem solving: Prekindergarten – Grade 6* (pp. 53-61). Reston, VA: National Council of Teachers of Mathematics.

Hiebert, J., & Wearne, D. (2003). Developing understanding through problem solving. In H. L. Schoen (Ed.), *Teaching mathematics through problem solving: Grades 6 – 12* (pp. 3-13). Reston, VA: National Council of Teachers of Mathematics.

Hiebert, J., Gallimore, R., Garnier, H., Givven, K. B., Hollingsworth, H., Jacobs, J., Chui, A. M.-Y., Wearne, D., Smith, M., Manaster, A., Tseng, E., Etterbeek, W., Manaster, C., Gonzales, P., & Stigler, J. W. (2003). *Teaching mathematics in seven countries: Results from the TIMSS 1999 Video Study*. Washington, D.C.: U.S. Department of Education, National Center for Education Statistics.

Hiebert, J., Gallimore, R., & Stigler, J. W. (2003, November 5). The new heroes of teaching: Opening classroom doors for the good of the profession. *Education Week*, 23 (10), 56, 42.

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. W. (2003). *Third International Mathematics and Science Study 1999 Video Study Technical Report, Volume 1: Mathematics*. Washington, DC: U.S. Department of Education, National Center for Education Statistics. Available online at <http://nces.ed.gov/>

2002

Hiebert, J., Gallimore, R., & Stigler, J. W. (2002). A knowledge base for the teaching profession: What would it look like and how can we get one? *Educational Researcher*, 31(5), 3-15.

Hiebert, J. (2002). Lektionsplanering: Ny verksamhet i gammal form. [Lesson planning reconsidered: Creating a new function for an old form.] *Nämnnaren*, 29(1), 53-57.

Stigler, J. W., & Hiebert, J. (2002). Improving teaching. In P. L. Kimmelman & D. J. Kroeze, *Achieving world class schools: Mastering school improvement using a genetic model* (pp. 293-294). Norwood, MA: Christopher-Gordon Publishers.

2001

Hiebert, J., Kilpatrick, J., & Lindquist, M. M. (2001). Improving U.S. doctoral programs in mathematics education. In R. E. Reys & J. Kilpatrick (Eds.), *One field, many paths: U.S. doctoral programs in mathematics education* (pp. 153-159). Providence, RI: American Mathematical Society.

2000

Hiebert, J., & Stigler, J.W. (2000). A proposal for improving classroom teaching: Lessons from the TIMSS Video Study. *Elementary School Journal*, 101, 3-20.

Stigler, J. W., Gallimore, R., & Hiebert, J. (2000). Using video surveys to compare classrooms and teaching across cultures: Examples and lessons from the TIMSS Video Studies. *Educational Psychologist*, 35, 87-100.

Hiebert, J. (2000). What can we expect from research? *Mathematics Teacher*, 93, 168-169; *Mathematics Teaching in the Middle School*, 5, 413-415; *Teaching Children Mathematics*, 6, 436-437.

1999

Carpenter, T.P., Fennema, E., Fuson, K., Hiebert, J., Human, P., Murray, H., Olivier, A., Wearne, D. (1999). Learning basic number concepts and skills as problem solving. In E. Fennema & T.A. Romberg (Eds.), *Mathematics classrooms that promote understanding* (pp. 45-61). Mahwah, NJ: Erlbaum.

Hiebert, J., Stigler, J. W., & Manaster, A. B. (1999). Mathematical features of lessons in the TIMSS Video Study. *Zentralblatt für Didaktik der Mathematik (International Reviews on Mathematical Education)*, 31(6), 196-201.

Hiebert, J. (1999). Relationships between research and the NCTM Standards. *Journal for Research in Mathematics Education*, 30, 3-19.

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1998

Grant, T.J., Hiebert, J., & Wearne, D. (1998). Observing and teaching reform-minded lessons: What do teachers see? *Journal of Mathematics Teacher Education*, 1, 217-236.

Hiebert, J. (1998). Aiming research toward understanding: Lessons we can learn from children. In A. Sierpiska & J. Kilpatrick (Eds.), *Mathematics education as a research domain: A search for identity* (pp. 141-152). Dordrecht, The Netherlands: Kluwer.

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1997

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1992

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Hiebert, J., Wearne, D., & Taber, S. (1991). Fourth graders' gradual construction of decimal fractions during instruction using different physical representations. *Elementary School Journal*, *91*, 321-341.

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