Conceptual Calculations Bibliography

- Anderson, J., & Wong, M. (2007). Teaching common fractions in primary school: Teachers' reactions to a new curriculum. In P. L. Jeffery (Ed) *Proceedings of Australian Association for Research in Education 2006*. Engaging Pedagogies (Vol 1 pp. 1-13). Adelaide, (27-30 Nov 2006)
- Archer, Anita (1994). *Skills For School Success: Book Five*. North Billerica, Massachusetts, Curriculum Associates, Inc.
- Ball, D. (1990) The Mathematical Understandings That Prospective Teachers Bring to Teacher Education. *The Elementary School Journal*, Vol. 90, No. 4, pp. 449-466.
- Ball, D. L. & Cohen, D. K. (1999). Developing practice, developing practitioners: toward a practice-based theory of professional education. In G. Sykes and L. Darling-Hammond (Eds.), *Teaching as the Learning Profession: Handbook of Policy and Practice* (pp. 3-32). San Francisco: Jossey Bass.
- Ball, D. L., Ferrini-Mundy, J., Kilpatrick, J., Milgram, R. J., Schmid, W., Schaar, R. (October 2005) Reaching for common ground in k-12 mathematics education, *Notices of the AMS, Vol. 52, No. 9*, pp. 1055-1058.
- Ball, D. L., S., and Mewborn, D. (2001) Research on teaching mathematics: The unsolved problem of teachers' mathematical knowledge. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed.). New York: Macmillan
- Ball, D.L. (1993). Halves, pieces, and twoths: Constructing and using representational contexts in teaching fractions. In Carpenter, T.P., Fennema, E., Ronberg, T.A. *Rational Numbers: An Integration Of Research*. Hillsdale, NJ: Lawrence Erlbaum.
- Barack Obama and Joe Biden's Plan for Lifetime Success Through Education [White Paper] (2008). Retrieved from the Obama for America 2008 campaign web site: www.barackobama.com/pdf/issues/PreK-12EducationFactSheet.pdf
- Berch, D. B., Mazzocco, M. M. M. (Eds.), Why is Math So Hard for Some Children? The Nature and Origins of Mathematical Learning Difficulties and Disabilities. Baltimore, MD: Paul H. Brookes Publishing Co.
- Bezuk, N. S. (in press). Using children's thinking in an elementary mathematics methods course: Issues related to teaching. In Proceedings of the 2005 Hawaii International Conference on Education. Honolulu, HI.
- Bezuk, N. S., & Gawronski, J. D. (2003). Increasing content and pedagogical knowledge of practicing elementary teachers. In S. Dawson (Ed.), *Proceedings of the twenty-seventh annual meeting of the International Group for the Psychology of Mathematics Education* (Vol. 1, p. 206). Honolulu, HI: PME.
- Bezuk, N., & Cramer, K. (1989). Teaching about fractions: What, when, and how? In P. Trafton (Ed.), *National Council of Teachers of Mathematics 1989 Yearbook: New Directions For Elementary School Mathematics* (pp. 156-167). Reston, VA: National Council of Teachers of Mathematics.

- Bialo, E.R. & Sivin-Kachala, J. (1995). Project Impact: Disseminating Innovation in Undergraduate Education, An Analysis of Innovations in Higher Education Curricula for Mathematics, Science, Engineering, and Technology. National Science Foundation.
- Bippert, J., & Bezuk, N.S. (2003). Developmental pathways to mathematics achievement. In N. M. Haynes, M. Ben-avie, & J. Ensign (Eds.), *How social and emotional development add up: Getting results in math and science education* (pp. 76–88). New York: Teachers College Press.
- Blaunstein, P. (1995). Report on Focus Groups: Research and Practice--Reading Instruction. ERIC/OSEP Special Project. Reston, VA: ERIC Clearinghouse on Disabilities and Gifted Education
- Brigham, F. J., Wilson, R., Jones, E., & Moisio, M. (1996). Best practices: Teaching decimals, fractions, and percents to students with learning disabilities. *LD Forum*, 21(3), 10-15.
- Burns, M. (2001). *Teaching Arithmetic: Lessons for Introducing Fractions, Grades 4-5*. Math Solutions Publications, Sausalito, California.
- Burns, M. (2003). *Teaching Arithmetic: Lessons for Extending Fractions, Grade 5*. Math Solutions Publications, Sausalito, California.
- Burns, M. (2003). *Teaching Arithmetic: Lessons for Multiplying and Dividing Fractions, Grades 5-6.* Math Solutions Publications, Sausalito, California.
- California Department of Education, California Standardized Testing and Reporting (STAR), State of California, All Students, accessed May 26, 2008, http://star.cde.ca.gov/star2007/Viewreport.asp.
- Carlsson, G., Cohen, R. L., Clements, D. M., Malloy, C. E., Moseley, L. G., Silbey, R. R., & Bezuk, N.S. (2001). *McGraw-Hill mathematics (grades K 6)*. New York: McGraw-Hill.
- Cathcart, W. G., Pothier, Y. M., Vance, J. H., & Bezuk, N. S. (2006). Learning mathematics in elementary and middle school (4th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Cathcart, W. G., Pothier, Y. M., Vance, J. H., & Bezuk, N. S. (2003). *Learning mathematics in elementary and middle school* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Cathcart, W. G., Pothier, Y. M., Vance, J. H., & Bezuk, N. S. (2001). *Learning mathematics in elementary and middle school* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall
- Clarke, B. & Shinn, M.R. (2004). A preliminary investigation into the identification and development of early mathematics curriculum-based measurement. *School Psychology Review*, *33*, 234-248.
- Clarke, B., Baker, S., Smolkoski, K., & Chard, D. (2008). Evaluating the technical features of slope for Early Numeracy Curriculum-based Measurement. *Remedial and Special Education*, 29, 46-57.

- Clements, D. H. (1999). 'Concrete' manipulatives, concrete ideas. *Contemporary Issues in Early Childhood*, 1(1), 45-60.
- Clements, D. H., (2007). Curriculum Research: Toward a Framework for Research-based Curricula, *Journal for Research in Mathematics Education* (Vol. 38, No. 1, p. 761–776). Reston, VA.: National Council of Teachers of Mathematics.
- Cramer, K. A., Post, T. R., & delMas, R. C. (2002). Initial fraction learning by fourth-and Fifth-grade students: A comparison of the effects of using commercial curricula with the Effects of using the rational number project curriculum. *Journal for Research in Mathematics Education*, 33(2), 111.
- Cramer, K., Behr, M., Post T., Lesh, R. (1997) *Rational Number Project: Fraction Lessons for the Middle Grades Level 1*. Kendall/Hunt Publishing Co., Dubuque Iowa.
- Fennell, et. al. *National Mathematics Advisory Panel. Report of the Task Group on Conceptual Knowledge and Skills*, U.S. Department of Education: Washington, DC, 2008.
- Florida Department of Education, Assessment and School Performance. accessed May 26, 2008, fcat.fldoe.org.
- Frederickson, N. & Cline, T. (2002) *Special Educational Needs, Inclusion and Diversity: A Textbook* (chapter 12). Buckingham: Open University Press.
- Frøkjær, E., Hertzum, M., Hornbæk, K., 2000. Measuring usability: are effectiveness, efficiency, and satisfaction really correlated? In: *Proceedings of ACM Conference on Human Factors in Computer Systems*. ACM Press, New York, NY, pp. 345–352.
- Fuchs, L. S., & Fuchs, D. (2001). Principles for the prevention and intervention of math difficulties. *Learning Disabilities Research & Practice*, 16, 85-95.
- Fuchs, L.S., Fuchs, D., Compton, D.L., Powell, S.R., Seethaler, P.M., Capizzi, A.M., Schatschneider, C., & Fletcher, J.M. (2006). The cognitive correlates of third-grade skill in arithmetic, algorithmic computation, and arithmetic word problems. *Journal of Educational Psychology*, 98, 29-43.
- Fuchs, L.S., Fuchs, D., Karns, K., Hamlett, C.L., Katzaroff, M., & Dutka, S. (1997). Effects of task-focused goals on low-achieving students with and without learning disabilities. *American Educational Research Journal*, 34(3), 513-544.
- Fuchs, L.S., Fuchs, D., Prentice, K., Burch, M., Hamlett, C.L., Owen, R., & Schroeter, K. (2003). Enhancing third-grade students' mathematical problem solving with self-regulated learning strategies. *Journal of Educational Psychology*, 95(2), 306-315.
- Gearhart, M. & Saxe, G. B. (2004). When teachers know what students know: Integrating mathematics assessment. *Theory Into Practice* Autumn, 2004
- Geary, et. al. (2008). *National Mathematics Advisory Panel. Report of the Task Group on Learning Processes*. U.S. Department of Education, Washington, DC, 2008.
- Griffiths, et. al. (2007). *Response to Intervention: Research for Practice*. Alexandria, VA Association for Supervision and Curriculum Development.

- Hall, G. E. & Hord, S. M. (2001). *Implementing change: Patterns, principles, and potholes*. Boston, MA: Allyn and Bacon.
- Heaton, R.M. (1992) Who is minding the mathematics content? A case study of a fifth-grade teacher. *The Elementary School Journal*, 93(2), 153-162
- Hecht SA, Close L, Santisi M. (2003) Sources of individual differences in fraction skills. *Journal of Experimental Child Psychology*. 2003, 86(4) 277-302.
- Hecht, S. A. Toward an Information-Processing Account of Individual Differences in Fraction Skills. *Journal of Educational Psychology*, Vol. 90, 1998.
- 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 (10), 768-775
- Hill, H. Cl, Rowan, B., & Ball, D.L. (2005) Effects of teachers' mathematical knowledge for teaching on student achievement. *American Educational Research Journal*, 42(2), 371-406
- Hill, H.C., & Ball, D. L. (2004). Learning mathematics for teaching: Results from California's Mathematics Professional Development Institutes. *Journal for Research in Mathematics Education*, 35 (5), 330-351
- Hill, H.C., Schilling, S. G., Ball, D.L. (2004). Developing Measures of Teachers' Mathematics Knowledge for Teaching. *The Elementary School Journal* Volume 105, Number 1. Chicago: The University of Chicago
- Hornbaek, K. (2006) Current practice in measuring usability: Challenges to usability studies and research. *International Journal of Human-Computer Studies, Vol. 64, No. 2.* (February 2006), pp. 79-102.
- Huntley, Lance and Greever-Rice, Tracy (2007). *Analysis of 2005 MAP Results for eMINTS Students, Evaluation Team Policy Brief.* Columbia, Missouri: eMINTS National Center.
- Kastberg, S. E. and Norton, A. (2007). Building a system of rational numbers. Kloosterman, P. and Lester, F.K. (Ed.), *Results and Interpretations of the 2003 Mathematics Assessment of the National Assessment of Educational Progress* (pp. 67-93). Reston, VA: National Council of Teachers of Mathematics.
- Kilpatrick, J., Swafford, J., and Findell, B. (Eds.). (2001). *Adding It Up: Helping Children Learn Mathematics*. National Research Council. Mathematics Learning Study Committee, Center for Education, Division of Behavioral and Social Sciences and Education. Washington: National Academy Press.
- Knowles, M. (1975) Self-Directed Learning: a Guide for Learners and Teachers. Follet, Chicago
- Knowles, M. (1984). Andragogy in Action: Applying Modern Principles of Adult Learning. San Francisco: Jossey-Bass

Knowles, M. (1984). *The Adult Learner: A Neglected Species (3rd Ed.)*. Houston, TX: Gulf Publishing.

Kroesbergen, E. H., & Van Luit, J. E. H. (2003). Mathematics interventions for children with special needs: A meta-analysis. *Remedial and Special Education*, 24, 97–114.

Lamon, S. J. Teaching Fractions and Ratios for Understanding: Essential Content Knowledge and Instructional Strategies for Teachers, Second Edition. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers. 2006.

Lamon, S. J. (2006). *Teaching Fractions And Ratios for Understanding, Second Edition*. Mahwah, NJ: Lawrence Erlbaum Associates.

Lamon, Susan J. "Mathematical Modelling and the Way the Mind Works", in *Teaching and Learning Mathematical Modelling: Innovation, Investigation, and Applications*, by S. K. HoustonPublished by Horwood Publishing, 1997

Lamon, S. J. (1996). The Development of unitizing: Its role in children's partitioning strategies. *Journal for Research in Mathematics Education*, 27 (2), 170-93

Laura M. Desimone, Thomas M. Smith, and Koji Ueno. (2006) Are teachers who need sustained, content-focused professional development getting it? An administrator's dilemma. *Educational Administration Quarterly* 2006 42: 179-215

Lesh, Richard A., and Susan J. Lamon. "Trends, Goals, and Priorities in Mathematics Assessment." In Assessment of Authentic Performance in School Mathematics, edited by Richard A. Lesh and Susan J. Lamon, pp. 3-16. Washington, D.C.: American Association for the Advancement of Science, 1992.

Lesh, Richard A., and Susan J. Lamon. "Assessing Authentic Mathematical Performance." In Assessment of Authentic Performance in School Mathematics, edited by Richard A. Lesh and Susan J. Lamon, pp.17-62. Washington, D.C.: American Association for the Advancement of Science, 1992.

Litwiller, B. and Bright, G. (Eds.), *Making sense of fractions, ratios and proportions*, 2002 NCTM Yearbook. Reston, VA: National Council of Teachers of Mathematics

Loucks, S. F., Newlove, B. W., and Hall, G. E. (1975). *Measuring Levels of Use of the Innovation: a Manual for Trainers, Interviewers, and Raters*. Austin, Tex.: University of Texas, Research and Development Center for Teacher Education.

Ma, Liping (1999). <u>Knowing and Teaching Elementary Mathematics</u>. Mahwah, New Jersey, Lawrence Erlbaum Associates.

Marzano, R. J. (2002). Language, the language arts, and thinking. In J. Flood, J. Jensen, D. Lapp, & J. Squire (Eds.), *Handbook of research on teaching the English language arts* (2nd ed.). New York: MacMillan Publishing Company with the International Reading Association and the National Council of Teachers of English.

McCoy, A., Hill, A., Sack, J., Papakonstantinou, A. and Parr, R. (2007) *Strengthening mathematics teachers' pedagogical content knowledge through collaborative investigations in combinatorics*. Paper presented at the annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics

Education, University of Nevada, Reno, Reno, Nevada, Oct 25, 2007. http://nsfmli.rice.edu/presentations/Sack-McCoy-presentation.pdf

Mewborn, D.S. (2003). Teaching, teachers' knowledge, and their professional development. In J. Kilpatrick W.G. Martin, & D. Schifter (Eds.), *A Research Companion to the Principles And Standards for School Mathematics* (pp. 45-52). Reston, VA: National Council of Teachers of Mathematics.

Montague, M. (2007). Self-regulation and mathematics instruction. *Learning Disabilities Research and Practice*, 22, 75–83.

Morgan, D. L., Krueger, R. A. (1998) *The Focus Group Kit (6 volumes)*. Newbury Park, CA: Sage Publications

Murray, D. M. (1998). *Design and Analysis of Group-Randomized Trials*. New York: Oxford University Press.

National Center on Education Statistics. (2007). *National Assessment of Educational Progress: The Nation's Report Card*. Washington DC: U.S. Department of Education.

National Mathematics Advisory Panel (2008). Foundations for Success: The Final Report of the National Mathematics Advisory Panel, Washington, DC: U.S. Department of Education.

Negroni, P. J. (2005) Another teacher professional development day? Lose another day of class time? Can we afford this? *National Staff Development Council Vol 25, No 1* (Winter 2005)

Nickerson, S. D. & Moriarty, G. (2004) *Capturing the Complexity of Teacher Development: Two Cases*. Presented to the Association of Mathematics Teacher Educators Conference (AMTE 2004) at San Diego State University. http://www.sdsu-pdc.org/amte_pres/AMTE04_susan.ppt

Nielsen, J. and Landauer, T. K. (1993) A mathematical model of the finding of usability problems. *Proceedings of ACM INTERCHI '93 Conference (Amsterdam, The Netherlands*, 24-29 April 1993). pp. 206-213.

Olive, J. & Lobato, J. (2008). The learning of rational number concepts using technology. K. Heid and G. Blume (Eds.) *Research on Technology in the Learning and Teaching of Mathematics*, Greenwich, CT: Information Age Publishing, Inc.

Post, T., Harel, G., Behr, M., & Lesh, R. (1988). Intermediate teachers knowledge of rational number concepts. In Fennema, et al. (Eds.), *Papers from First Wisconsin Symposium for Research on Teaching and Learning Mathematics* (pp. 194-219). Madison, WI: Wisconsin Center for Education Research

Quality Education Data (QED), (May 2007). Federal Funds for Education. Denver, CO.

Raiker, A. (2002). Spoken language and mathematics. *Cambridge Journal of Education*, 32(1), pp. 45-60.

Reeder, S. and Utley, J. *Developing fraction understanding in prospective elementary teachers*. Paper presented at the annual meeting of the North American Chapter of the

International Group for the Psychology of Mathematics Education, University of Nevada, Reno NV. http://www.allacademic.com/meta/p193980_index.html

Reinhartz, J., Van Cleaf, D. W. (1986). *Teach-practice-apply : the TPA instruction model, K-8.* Washington, D.C. : National Education Association.

Rowan, B., Schilling, S. G., Ball, D. L. and Miller, R. (2001), Measuring teachers' pedagogical content knowledge in surveys: An exploratory study. *Consortium for Policy Research in Education, Study of Instructional Improvement, Research Note S-2*. Ann Arbor: University of Michigan.

Scherer, M. (2007) Perspectives / Speaking of Math. *Educational Leadership*, November 2007

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, *15* (2), 4–14.

Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, *57*(1), 1-22.

Smith, J. P. III (2002). The development of students' knowledge of fractions and ratios. *Making Sense Of Fractions, Ratios And Proportion. 2002 Yearbook.* Reston, VA: National Council of Teachers of Mathematics.

Sivin-Kachala, J., Bialo, E.R., & Langford, J. (2000). 2000 Research Report on the Effectiveness of Technology in Schools. Software Information and Industry Association.

Sivin-Kachala, J. & Bialo, E.R. (1994). Educational Technology, Teaching, and the Development of Complex Skills, Edutopia.

Sowder, J. (2007). Preparing Teachers to Prepare Students for Algebra. *Ohio Symposium on Mathematics and Science*, July 2007.

Sowder, J. T, Philipp, R. A., Armstrong, B. E., & Shappelle, B. (1998). *Middle-grade teachers' mathematical knowledge and its relationship to instruction: A research monograph*. New York: State University of New York Press.

Sowder, J., Sowder, L., Nickerson, S. (2008) *Reconceptualizing Mathematics*. *Preliminary Edition. Part 3. Reasoning About Shapes and Measurement*, W. H. Freeman, paperback.

Sowder, J. and Schapelle, B., Eds. (2002). Lessons Learned from Research. National Council of Teachers of Mathematics, Reston, VA.

Stein, Mary, et al (2006). *Designing Effective Mathematics: A Direct Instruction Approach*. Upper Saddle River, NJ: Prentice Hall.

Tharp, Susan (2006). Principals Exhibiting Student-Centered Leadership Correlates with Positive School Climate Indicators in Title I eMINTS Schools and Higher MAP Math Scores in Title I eMINTS Classrooms, Evaluation Team Policy Brief. Columbia, Missouri: eMINTS National Center.

Thomas, G., Ward, J. (2006) What Do Teachers Know About Fractions? Findings from the New Zealand Numeracy Development Projects, New Zealand.

http://www.educationcounts.govt.nz/publications/schooling/findings_from_the_new_zeal and_numeracy_development_projects_2006

Van De Walle, John (2001). *Elementary and Middle School Mathematics: Teaching Developmentally*. New York: Addison Wesley Longman.

Vaughn, S., Schumm, J. S., Sinagub, J (1996). Focus Group Interviews in Education and Psychology. London: Sage Publications

Weiss, I., Miller, B., Heck, D., & Smith,S. (2006) *Deepening Teacher content Knowledge for Teaching: A Review of the Evidence*. Paper presented at the MSP Evaluation summit. www.horizon-research.com

Yankelovich, Daniel. *Coming to Public Judgment*. Syracuse University Press, Syracuse, NY, 1991.

Zhao, Y., Pugh, K., Sheldon, S., & Byers, J. (2002). Conditions for classroom technology innovations: Executive summary. *Teachers College Record*, 104 (3) 482-515.