SAMPLE PUBLICATIONS OF ONTARIO MATH EDUCATION RESEARCHERS FEB, 2005

Brock University

Eric Muller

Muller, E.R. (2004). Future Teachers Use Technology to Explore Mathematics Concept Development, *Tenth International Congress on Mathematics Education*, Copenhagen.

Muller, E.R. (2002). Enhancing mathematics teacher programs and responding to the shortage of mathematics teachers. *Second International Conference on the Teaching of Mathematics at the undergraduate level*, Crete.

Muller, E.R. (2001). Reflections on the sustained use of technology in undergraduate mathematics education. In D. Holton (Ed.), *The Teaching and Learning of Mathematics at University Level*. Kluwer Academic Publishers, p. 381.

Muller, E.R. (2001). Flexibility of Student Access to Mathematics and Flexibility of Student Action in Mathematics", Quaestiones Mathematicae, Supplement Number 1, p. 65.

Jenkyns, T.A., and Muller, E.R. (2000). Triangular Triples from Ceilings to Floors", *The American Mathematical Monthly* , 107, p. 634.

Joyce Mgombelo

Mgombelo, J. (2003). Cartesian Subjectivity and the Question of Knowledge. *Educational Insights, 8*(2).

Mgombelo, J. (2004). Mathematics virtual learning village: Occasioning student teachers learning to teach mathematics. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 1276-1278). Toronto: OISE/UT.

Institute for Child Study (University of Toronto)

Joan Moss

Vuletic, L., Scullion, S., & Moss, J. (2004) Teaching long division to learning disabled students: A psychological analysis of two algorithms. [Poster session.]In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, p. 1526). Toronto: OISE/UT.

Moss, J. (Feb, 2003). Introducing percents in linear measurement to foster an understanding of rational-number operations. In *Teaching Children Mathematics Focus Issue: Computational Fluency* (pp. 335-345). Reston, VA: National Council of Teachers of Mathematics.

Moss, J. (2002). Percents and proportion at the center: Altering the teaching sequence for rational number. In B. Littweiller (Ed.), *Making Sense of Fractions, Ratios, and Proportions* (pp. 109-120). Reston, VA: National Council of Teachers of Mathematics.

Moss, J, & Case, R. (2002). Developing children's understanding of the rational numbers. In J. Sowder & B. Chapelle (Eds.), *Lessons Learned from Research*, (pp. 143-150). Reston, VA: National Council of Teachers of Mathematics.

Lakehead University

Alex Lawson

Lawson, A. & **Suurtamm, C**. (2004). A Local Interpretation Of The Cognitive-By-Content Matrix: A Barrier To Better Test Design. *International Congress on Mathematical Education.* Copenhagen . Denmark . July 2004.

Lawson, A., (2003). Documenting reform instruction in the classroom, In E. Simmt and B. Davis (Eds.), *Proceedings of the 2003 Annual Meeting of the Canadian Mathematics Education Study Group,* (pp. 125-130). Edmonton, Alberta: CMESG.

Ann Kajander

Kajander, A. (2004). Ways of seeing. Unexpected student solutions and subsequent teacher responses. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 1391-1392). Toronto: OISE/UT.

Kajander, A., & Lovric, M. (2004). Transition from Secondary to Post-Secondary Mathematics: Changing Features of Students' Mathematical Knowledge and Skills and Their Influence on Students' Success. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 1, pp. 155-161). Toronto: OISE/UT.

Laurentian University

Luis Radford

Webpage: http://www.laurentian.ca/educ/lradford/

Comment: The current research at Laurentian, funded by SSHRC and carried out at the *Laboratory of Cultural Semiotics and Mathematical Thinking*, deals with the investigation of the role played by body, artifacts, and symbols in mathematical thinking.

Radford, L. (in press). The Anthropology of meaning. *Educational Studies in Mathematics*.

Radford, L. (2003). On the epistemological limits of language. Mathematical knowledge and social practice in the Renaissance. *Educational Studies in Mathematics,* 52(2), 123-150.

Radford, L. (2003). Gestures, speech, and the sprouting of signs. *Mathematical Thinking and Learning,* 5(1), 37-70.

Radford, L. (2002). The seen, the spoken and the written. A semiotic approach to the problem of objectification of mathematical knowledge. *For the Learning of Mathematics*, 22(2), 14-23.

Radford, L.: (2000) Signs and meanings in students' emergent algebraic thinking: A semiotic analysis. *Educational Studies in Mathematics,* 42 (3), 237-268.

Serge Demers

Radford, L. et Demers, S. (2004). *Communication et apprentissage. Repères conceptuels et pratiques pour la salle de classe de mathématiques*. Ottawa : Centre franco-ontarien des ressources pédagogiques.

Radford, L. and Demers, S. (2004). La formazione iniziale per l'insegnamento nell'Ontario: qualche parametro del contesto istituzionale, in: M. I. Fandiño Pinilla (ed.) *Riflessioni sulla formazione iniziale degli insegnanti di matematica: una rassegna internazionale*, (pp. 177-194). Bologna: Pitagora Editrice.

Radford, L., Cerulli, M., Demers, S., and Guzmán, J. (2004). The sensual and the conceptual: Artefact-mediated kinesthetic actions and semiotic activity. In M. J. Høines and A. B. Fuglestad (eds.), *Proceedings of the 28 Conference of the international group for the psychology of mathematics education* (PME 28), Vol. 4, pp. 73-80. Norway: Bergen University College.

Radford, L., Demers, S., Guzmán, J. and Cerulli, M. (2003). Calculators, graphs, gestures, and the production meaning. In N., Pateman, B. Dougherty and J. Zilliox (eds.), *Proceedings of the 27 Conference of the international group for the psychology of mathematics education* (PME27 –PMENA25), Vol. 4, pp. 55-62, University of Hawaii.

McMaster University

Miroslav Lovric

Lovric, M. (2004) Transition from secondary to tertiary Mathematics, the McMaster University Experience. Paper presented at *Topic Study Group 3, of the 10th International Congress on Mathematical Education,* Copenhagen, Denmark, July 11-14.

Kajander, A., & Lovric, M. (2004). The double cohort: preliminary research on the transition from secondary to university level mathematics. *The Ontario Mathematics Gazette*, 42 (4), pp 33-36.

Lovric, M. & Poole, D (2004). Images of undergraduate mathematics. In *Canadian Mathematics Education Study Group/Groupe canadien d'etude en didactique des mathematiques: Proceedings, 2003 Annual Meeting*. Acadia University.

Lovric, M. (2001). "Teaching Mathematics" Course at McMaster University - Partnership for Teaching and Learning. *Proceedings of the 24th International HERDSA Conference*. Australian Capital Territory: HERDSA.

OISE/UT

Rina Cohen

Cohen, R., & Leung, P. (2004). Math anxious, elementary teachers' change processes in a graduate course aimed at building math confidence and reducing anxiety. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 1079 - 1086). Toronto: OISE/UT.

Gila Hanna

Hanna, G. (2005). A brief overview of proof, explanation, exploration and modelling. In Henn, W., von Hofe, R. & Kaiser, G. (Eds.) *Festschrift for Werner Blum on the occasion of his 60th birthday.*

Hanna, G., DeBruyn, Y., Sidoli, N. & Lomas, D. (2004). Teaching Proof in the Context of Physics. *Zentralblatt für Didaktik der Mathematik, International reviews on mathematical education,* 36(3), 82-90.

Hanna, G. (2003). Reaching Gender Equity in Mathematics Education. *The Educational Forum,* 67(3), 204-214.

Hanna, G. (2003). Journals of Mathematics Education, 1900-2000. In Coray, D. and Furringhetti, F. (Eds.) *One Hundred Years of L'Enseignement Mathématique : Moments of Mathematics Education in the 20th Century*. Geneva: L'Enseignement Mathématique, pp. 67-84.

Hanna, G. & Jahnke, H. N. (2002). Arguments from physics in mathematical proofs: An educational perspective. *For the learning of mathematics,* 22(3), 38-45.

Hanna, G. & Barbeau, E. (2002). What is Proof? In Baigrie, B. (Ed.). *History of Modern Science and Mathematics.* (4 volumes). Charles Scribner's Sons, Vol. 1, 36-48. ISBN 0-684-80636-3

Doug McDougall

Ross, J. A., McDougall, D. E., Bruce, C., Ben Jafaar, S., & Lee, J., (2004). A multi-dimensional approach to mathematics in-service. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 1101-1109). Toronto: OISE/UT.

Ross, J. A., McDougall, D., Hogaboam-Gray, A., & LeSage, A. (2003). A survey measuring elementary teachers' implementation of standards-based mathematics teaching. *Journal for Research in Mathematics Education, 34*(4), 344-363.

Ross, J. A., McDougall, D., & Hogaboam-Gray, A. (2002). Research on Reform in Mathematics Education, 1993-2000. *Alberta Journal of Educational Researc*h 48(2), 122-38.

McDougall, D. E. (1996). Mathematics Teachers' Needs in Computer-Based Geometric Environments. Paper presented at the 8th International Congress on Mathematics Education, Seville, Spain.

Queen's University

Lynda Colgan

Colgan, L.E.C. (2003). Connect-ME: A Case Study on Individual and Small Group Change in a Local, On-Line Professional learning Community for Elementary Mathematics Educators. CSSE 2003 conference

Colgan, L.E.C. (2002). Parent Resources for Elementary Math ... What's New? What works?. Faculty of Education, Queen's University. Proceedings of the Trading Places Mathematics Conference for Queen's Teacher Candidates, Kingston.

Colgan, L.E.C., Higginson, W.C., & Sinclair, N. (2001). Connect-ME: A virtual community of elementary mathematics educators. *Orbit, 31* (3). Special issue on the theme of: Science, Technology and Mathematics Learning for All.

Colgan, L.E.C., & Sinclair, N. (2000). Matisse mathematics: Paper dolls and transformational geometry. *Mathematics in Schools,* 2-8.

Colgan, L.E.C. (2000). Meeting the challenge: Mentoring and leadership training in pre-service teacher education. *CMS Notes, 32* (8), 17-19. Canadian Mathematical Society.

Bill Higginson

Schiralli, M. Edited with W. Higginson, D. Pimm & N. Sinclair. (in press). *Mathematics and the Aesthetic: Modern Approaches to an Ancient Affinity*. New York: Springer-Verlag.

Upitis, R., Phillips, E., & Higginson, W. (2002). *Creative Mathematics: Exploring Children's Understanding*, EBook edition (Microsoft Reader and Acrobat). London and New York: Taylor and Francis.

Higginson, W.C., & Colgan, L.E.C. (2001). Algebraic thinking through origami. *Mathematics Teaching in the Middle School, 6* (6), 343-349.

Higginson, W., Jackiw, N., & Sinclair, N. (2000). The SketchMad Collaborative: A project to support Ontario teachers using "the Geometer's Sketchpad" *Ontario Mathematics Gazette.*

Flewelling, G., & Higginson, W. (2000). *Realizing a Vision of Tomorrow's Mathematics Classroom: A Handbook on Rich Learning Tasks*. Kingston, Ontario: Centre for Mathematics Science and Technology Education.

Geoff Roulet

Roulet, G. & Suurtamm, C . (2004). Modelling: Subject Images and Teacher Practice. Proceedings of the International Commission on Mathematical Instruction – Study 14. February, 2004. Dortmund , Germany .

Roulet, G. (2002). Social issues and Statistics Canada resources in the mathematics classroom. *School Libraries in Canada, 22* (1), 25-27.

Roulet, G. (2001). Proofs and refutations on the Web: Mathematics environments for grades 7 & 8. In E. Simmt (Ed.), *Canadian Mathematics Education Study Group/Groupe canadien d'etude en didactique des mathematiques: Proceedings, 2001 Annual Meeting*. Edmonton: University of Alberta.

Roulet, G., Abernethy, L., Lemmon, C., Muller, A., Saarimaki, P., Veltri, E., & Warren, M. (2001). Grades 7 and 8 to 9: Bridging the gap. *Ontario Mathematics Gazette, 40* (1), 11-14.

Roulet, G. (2000). Exemplary mathematics teachers: Subject conceptions and instructional practices. *Philosophy of Mathematics Education Journal, 13* Available at: http://www.ex.ac.uk/~PErnest/thesis/cover_pg.htm.

Peter Taylor

Taylor, P.D. The teacher as artist: a letter to my colleagues. MAA Focus 24, May/June 2004: 8-9.

Taylor, P.D. (2004) Review of the CUPM Curriculum Guidelines 2004, MAA Online: <http://www.maa.org/reviews/cupmguide.html>

Taylor, P.D. (2001). *Mathematical Inquiries*. Toronto: Pearson Education. (pp. 75).

Taylor, P.D., & Sinclair, N. (2000). "Training" our students. *Canadian Journal of Science, Mathematics and Technology, 1*, 110-116.

Leo Jonker

Jonker, L. & Nielsen, O. (2002). An example concerning the order-two density of a set, *Houston Journal of Mathematics* 28(3), 553-563.

Jonker, L., (2002) Teaching and Understanding Mathematics, *Promising Practices*, special issue of *Education Canada*, pp. 8-9

Trent University

Cathy Bruce

Bruce, C. (2004). Teacher efficacy in preservice mathematics: Changing perception through experiences. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, p. 1279-1280). Toronto: OISE/UT.

Ross, J. A., McDougall, D. E., Bruce, C., Ben Jafaar, S., & Lee, J., (2004). In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 1101-1109). Toronto: OISE/UT.

Ross, J.A., Hogaboam-Gray, A., McDougall, D., & Bruce, C. (2001-02). The contribution of technology to the implementation of mathematics education reform: Case studies of grade 1-3 teachers. *Journal of Educational Computing Research, 26*(1), 123-140.

University of Ontario Institute of Technology

Robin Kay

Kay, R. H. (in press). Learning performance and computer software: An exploration of knowledge transfer. *Computers in Human Behavior.*

Kay, R. H. (2004). Using Laptops Effectively in Higher Education. Paper presented at the *E-Learn Conference*, Washington, DC.

Kay, R. H. (1996). Identifying effective knowledge building activities for learning computer software. *Journal of Computer Science Education*, 11 (1), p. 21-24.

Kay, R. H. (1993). An exploration of theoretical and practical foundations for assessing attitudes toward computers: The computer attitude measure (CAM). *Computers in Human Behavior*, 9, 371-386.

Kay, R. H. (1993). A critical evaluation of gender differences in computer-related behaviour. *Computers in the Schools*, 9(4), 81-93.

University of Ottawa

Chris Suurtamm

Suurtamm, C. & Roulet, G. (accepted). Modelling in Ontario: Success in Moving along the Continuum. In W. Blum (Ed.) ICMI Study Volume 14: Applications and Modelling. Kluwer Academic Press.

Suurtamm, C. (in press). Developing authentic assessment: case studies of secondary school mathematics teachers' experiences. Canadian Journal of Science, Mathematics and Technology Education.

Suurtamm, C., Vézina, N., Graves, B., Berger, M.J., Forgette-Giroux, R. & Maltais, C. (2004). Studies of the Early Math Strategy: A Longitudinal Study of Teacher Development. *International Group for Psychology of Mathematics Education*. July 2004. Bergen , Norway

Suurtamm, C., Graves, B., & Vezina, N. (2004) Longitudinal study of professional development to build primary teacher expertise in teaching mathematics. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 1111-1117). Toronto: OISE/UT.

Suurtamm, C . (2000).Teachers make it authentic: supporting new assessment practices. *Research in Ontario Secondary Schools*, 6 (1).

University of Windsor

Pat Rogers

Rogers, P., & Kaiser, G. (Eds.). (1995). *Equity in mathematics education: Influences of feminism and culture*. London: The Falmer Press.

Anthony Ezeife

Ezeife, A.N. (2002). An African and aboriginal perspective on the use of the environment in mathematics and science teaching. (Article under review by the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) Institute of Education Journal – *International Review of Education* - Hamburg, Germany).

Ezeife, A.N. (2002). The Pervading Influence of Cultural Border Crossing and Collateral Learning on the Learner of Science and Mathematics. (Article under review by *Canadian Journal of Native Education*, University of British Columbia, Vancouver, B.C.)

Ezeife, A.N. (2001): Mathematics/culture nexus: A Case Study of the Interactions of Culture and Mathematics in an Aboriginal classroom. *International Education Journal*, 2(5).

University of Western Ontario

George Gadanidis

Website: http://publish.edu.uwo.ca/george.gadanidis

Gadanidis, G., Gadanidis, J. & Huang, A. (2005). Using humor to gain mathematical insight. *Mathematics Teaching in the Middle School*, 10(5), 244-250.

Gadanidis, G., & Schindler, K. (2004). The effect of learning objects on middle school students' mathematical thinking. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp 1489-1495). Toronto: OISE/UT.

Gadanidis, G. (2004). The pleasure of attention and insight. *Mathematics Teaching,* 186(1), 10-13.

Gadanidis, G., Sedig, K., & Liang, H.N. (2004). Designing online mathematical investigation. *Journal of Computers in Mathematics and Science Teaching, 23*(3), 273-296.

Gadanidis, G., & Hoogland, C. (2003). Mathematics as story. In G. Gadanidis, C. Hoogland & K. Sedig (Eds.), *Proceedings of mathematics as story: A symposium on mathematics through the lenses of art and technology* (pp. 128-135). London: University of Western Ontario.

Immaculate Namukasa

Namukasa, I. (2004). Globalization and School Mathematics. *Interchange.* 16 pages
Namukasa, I. (2003). Collective mathematical thinking. In Elaine Simmt and Brent Davis (Eds.) *Proceedings of the 2002 Annual Meeting of the Canadian Mathematics Education Study Group,* (pp. 145-146). Edmonton, Alberta: CMESG.

Namukasa, I. (2003). What Counts as Knowing? Is Knowing Free of Culture and Context? *Educational Insights, 8*(2). [Available at http://www.ccfi.educ.ubc.ca/publication/insights/v08n02/contextualexplorations/sumara/namukasa.html] 11pages

York University

Walter Whiteley

Website: http://www.math.yorku.ca/Who/Faculty/Whiteley/menu.html

Team chair of Topic Study Group 16: Visualisation in the teaching and learning of mathematics, at *the 10th International Congress on Mathematical Education,* Copenhagen, Denmark, July 11-14.

Whiteley, W. (2004). Teaching to see like a mathematician. In G. Malcolm (Ed.), *Multidisciplinary Approaches to Visual Representations and Interpretations.* Studies in Multidisciplinarity, Vol. 2, pp 279-292. Amsterdam: Elsevier.

Whiteley, W. (1999). The decline and rise of geometry in 20th century North America. In M. John Grant (Ed.), *Proceedings, CMESG 1999 annual meeting* (pp. 7-30). St. John's, Newfoundland: Memorial University of Newfoundland.

Margaret Sinclair

Website: http://www.yorku.ca/sinclair
Sinclair, M. P. (2005, in press) Peer Interactions in a lab: Reflections on results of a case study involving web-based dynamic geometry sketches. *Journal of Mathematical Behavior.*

Sinclair, M. (2004). Adopting Spherical Sketchpad and Cinderella as exploratory tools: Some reflections on motivating factors. Paper presented at *Topic Study Group 10, of the 10th International Congress on Mathematical Education,* Copenhagen, Denmark, July 11-14.

Sinclair, M.P. (2004). Complexity theory and the mathematics lab-classroom. *Complicity: An International Journal of Complexity in Education,* 1(1), 57-72.

Sinclair, M. (2004). Working with accurate representations: The case of pre-constructed dynamic geometry sketches, *Journal of Computers in Mathematics and Science Teaching*, 23(2), 191-208.

Sinclair, M. (2004). An approach to incorporating lesson study in elementary preservice courses. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 1287-1289). Toronto: OISE/UT.

George Frempong

Frempong, G., Deng, J., & Huang, S. (2004). Access to computer technologies and mathematics outcomes: Findings from Canadian grade 8 mathematics classrooms. Poster presentation. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, p. 1517). Toronto: OISE/UT.

Frempong, G. (2004) The influence of reform instructional practices on the socioeconomic disadvantaged students' attitude towards mathematics and their confidence in mathematics. Paper presented at *Topic Study Group 24, of the 10th International Congress on Mathematical Education,* Copenhagen, Denmark, July 11-14.

Frempong, G. (2003) Socioeconomic gradients in mathematics achievement: Findings for Canada from the Third International Mathematics and Science Study. In Elaine Simmt and Brent Davis (Eds.) *Proceedings of the 2002 Annual Meeting of the Canadian Mathematics Education Study Group,* (pp. 109-115). Edmonton, Alberta: CMESG.

Georgian College

Trish Byers

Byers, P. (2004) Responding to mathematics reform at the college level. *College Quarterly***,** 7(3).

Byers, P. (1998). Mathematics in an Articulated Nursing Program. *OCMA News and Views*, 98(2).

Seneca College

Riaz Saloojee

Saloojee, R. (2004). Affects of engagement in reform-based practice on a college instructor's conceptions of mathematics. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 1, pp 933-939). Toronto: OISE/UT.

Sheridan College

Dragana Martinovic

Martinovic, D. (2004) Communicating mathematics online – comparison of expert and peer tutoring. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp 1465-1472). Toronto: OISE/UT.