

Erminia Pedretti

Curriculum Vitae

A. Current Details

Name: Erminia Pedretti
Rank: Professor
Position: Director of the Centre for Studies in Science, Mathematics & Technology
Education
Status: Tenured
Address: Ontario Institute for Studies in Education
University of Toronto
Department of Curriculum, Teaching and Learning
252 Bloor St. West
Toronto, Ontario
Canada M5S 1V6

B. Qualifications

Designation: Ph.D.
Institution: Ontario Institute for Studies in Education
Department: Curriculum
Year: 1994
Title: *Action research in science, technology, society education: The road less travelled*

Designation: M.Ed.
Institution: Queen's University
Department: Curriculum
Year: 1992
Title: *Science, technology, and society: Myths and realities, A case study*

Designation: B.Ed.
Institution: Queen's University
Department: Science Education
Year: 1988

Designation: B.Sc.
Institution: University of Toronto
Department: Faculty of Arts and Science
Year: 1987

C. Employment History

Rank: Associate Professor
Date: 2001-present
Department: Curriculum, Teaching and Learning
Institution: OISE/University of Toronto

Rank: Assistant Professor
Date: July 1, 1996-2001
Department: Curriculum, Teaching and Learning
Institution: OISE/University of Toronto

Rank: Assistant Professor
Date: July 1, 1994 - June 30, 1996
Department: Curriculum Studies
Institution: University of British Columbia

Rank: Research Associate and Teaching Assistant
Date: 1993-1994
Department: Education
Institution: York University

Rank: Secondary School Teacher
Date: 1988-1991
Department: Science Grades 9, 10, 11, 12 & OAC
Institution: Durham Region Catholic Separate School Board

D. Positions of Responsibility

- Program Coordinator for the Department of Curriculum, Teaching and Learning (CTL), OISE (2004-2006)
- Director of the Centre for Studies in Science, Mathematics and Technology Education, OISE (January 2006 – present)
- Associate Director of the Centre for Studies in Science, Mathematics and Technology Education, OISE (1999-2005)

E. Honours

- Honorary President of the Science Teachers' Association of Ontario (STAO) (2004-2006)
- Ontario Graduate Scholarship (1993)
- Social Sciences and Humanities Research Council (SSHRC) Doctoral Fellowship (1992-1994)

F. Graduate Supervision Experience

Summary

- 4 doctoral theses completed (7 in progress)
- 5 Master's theses completed (2 in progress)
- 9 Master's major research papers (MRPs) completed
- 26 doctoral thesis committees completed (13 in progress)
- 5 Master's thesis committees completed

Details

Ph.D. Supervision

- Jeffrey Lance Scott (Ph.D.). *Exploring the use of virtual field trips with elementary school teachers: A collaborative action research approach*. Department of Curriculum, Teaching and Learning, OISE, September 2007.
- Stephen Fine (Ph.D.). *Contextual learning within the residential outdoor experience: A case study of a summer camp community in Ontario*. Department of Curriculum, Teaching and Learning, March 2005.
- Phaedra Livingstone (Ph.D.). *Reading the Science Centre: A case study of staff and visitor interpretive strategies*. Department of Curriculum, Teaching and Learning, November 2002.
- Ron Macdonald (Ph.D.). *An exploration of computer simulated evolution and small group discussion on pre-service science teachers' perceptions of evolutionary concepts*. Department of Curriculum, Teaching and Learning, October 1999.

M.A. Supervision

- Taina Kanerva (M.A.). *Developing eco-consciousness: A critical exploration of the Ontario Grade 12 "Environment and Resource Management" course*. Department of Curriculum, Teaching and Learning, August 2006.
- Cecilia Kutas (M.A.). *A case study of a primary mathematics integrated curriculum in a teacher training school in Hungary*. Department of Curriculum, Teaching and Learning, April 2006.
- Victor Summerkamp (M.A.). *A case study of Ontario science centre exhibitions and their effect on students' perceptions of grade 12 physics*. Department of Curriculum, Teaching and Learning, September 2005.
- Sarah Barrett (M.A.). *You do what you are: A case study of the manifestation of science teacher identity in curriculum development project*. Department of Curriculum, Teaching and Learning, June 2003.
- Isha De Coito (M.A.). *Innovations in science education: Reconceptualizing teaching roles in a self-directed program*. Department of Curriculum, Teaching and Learning, April 2000.

M.Ed. Supervision (Major Research Paper)

- William Neal (M.Ed.). *Unity as a fundament goal of education*. Department of Curriculum, Teaching and Learning, September 2005.

- Tigist Amdemichael (M.Ed.). *Learning to prioritize an issues-based STS approach in secondary science education: using futures education as tool for the professional development of science teachers*. Department of Curriculum, Teaching and Learning, September 2005.
- Lisa Serebrin (M.Ed.). *The impact of standards based reform on teaching and learning in elementary science education*. Department of Curriculum, Teaching and Learning, January 2004.
- Darren Sukerman (M.Ed.). *Instructional intelligences: Medical professionals through the chain of education*. Department of Curriculum, Teaching and Learning, April 2004.
- Linda Bouwman (M.Ed.). *A gender gap in science*. Department of Curriculum, Teaching and Learning, June 2002.
- Jane Lytle (M.Ed.). *We're going to the zoo, zoo, zoo! A curriculum development project for kindergarten teachers*. Department of Curriculum, Teaching and Learning, May 2000.
- Gail De Souza (M.Ed.). *Designing and delivering a workshop to support teachers in their implementation of problem based learning in secondary school biology*. Department of Curriculum, Teaching and Learning, April 2000.
- Sandra MacEwan (M.Ed.). *Environmental wet land simulations and the use of text-book: A comparative study*. Department of Curriculum, Teaching and Learning, April 2000.
- Joanne Walker (M.Ed.). *An ethic of care: Considerations for an issues approach to science-technology-environment-society (STSE) education*. University of British Columbia, Department of Curriculum Studies, June 1996.

M.A. Committee Membership

- Azza Sharkawy (M.A.). *Towards a critical multi-cultural science education at the primary level: Some personal reflections on theory and practice*. Department of Curriculum, Teaching and Learning, 2002.
- Lisa Fernandes (M.A.). *Towards scientific literacy through an authentic exploration of primary scientific literature*. Department of Curriculum, Teaching and Learning, 2002.
- Jessica Sitnick (M.A.). *Tourist art and authenticity: Objects without borders*, Department of Museum Studies, 2002.
- Susan Yoon (M.A.). *Group structuring effects on gender-specific discourse interactions within knowledge-building communities*. Department of Curriculum, Teaching and Learning, 1999.
- Patty Wong (M.A.). *Implementation of Johansen's art criticism model within a grade two classroom*. University of British Columbia, Department of Curriculum Studies, 1996.

Ph.D. Committee Membership

- Astrid Steele, (PhD). *A confluence of traditions: Examining teacher practice in the merging of secondary science and environmental education*, November 2009.
- Judy Kim (PhD). *Learning grade 7 science concepts by elaborate analogies: Mainstream and East and South Asian ESL students' experiences*. Department of Curriculum, Teaching and Learning, November, 2008.

- Theresa Calovini (PhD). *Socialization into science: An ethnographic study in a field research station*. November, 2008.
- Anthony Kola-Olusanya (PhD), *Environmental Sustainability: Understanding Young Adults' Learning, Thinking and Actions* September, 2008.
- Isha DeCoito (Ph.D.). *Writing in science: Exploring teachers' and students' views of the nature of science in language enriched environments*. Department of Curriculum, Teaching and Learning, June, 2008.
- Maurice DiGiuseppe (Ph.D.). *Representing the nature of science in a science textbook: Exploring author-editor-publisher interactions*. Department of Curriculum, Teaching and Learning, August 2007.
- Marie-Claire Shanahan (Ph.D.). *Playing the role of science student: Exploring the factors and patterns in science student identity formation*. Department of Curriculum, Teaching and Learning, April 2007.
- Sarah Barrett (Ph.D.). *Teacher candidates' beliefs about the inclusion of socioscientific issues in high school science*. Department of Curriculum, Teaching and Learning, October 2006.
- Rocco Anthony Di Giovanni (PhD). *College instructors' groupware experiences: Using action research as a tool for curriculum and professional development*. Department of Curriculum, Teaching and Learning, September 2006.
- Azza Sharkawy (Ph.D.). *An inquiry into the use of stories about scientists from diverse sociocultural backgrounds in broadening grade one students' images of science and scientists*. Department of Curriculum, Teaching and Learning, September 2006.
- Zahra Hazari (Ph.D.). *An investigation of factors that influence the gender gap in physics*, Department of Curriculum, Teaching and Learning, June 2006.
- Doug Karrow (Ph.D.). *Educating-within-place: Recovering from metaphysics as technicity*. Department of Curriculum, Teaching and Learning, January 2006.
- Roland Van Oostveen (Ph.D.). *Using action research for large scale teacher professional development: Research in science and technology education*, Department of Curriculum, Teaching and Learning, 2005.
- Cathy Marks Krpan (Ph.D.). *Exploring teachers' perceptions of concept mapping as a teaching strategy in science: An action research approach*. Department of Curriculum, Teaching and Learning, 2004.
- Nathalie Lemelin (Ph.D.). *An inquiry into participatory action research as a tool for curriculum and professional development in the museum*. Department of Curriculum, Teaching and Learning, 2002.
- Carmen James Schifellite (Ph.D.). *Factoring genetic determinism: An analysis of sociobiological discourse and debate and their presentations in biology textbooks*. Department of Curriculum, Teaching and Learning, 2002.
- Nelofer Halai (Ph.D.). *Munazza's story: Understanding science teaching and conceptions of the nature of science in Pakistan through a life history study*. Department of Curriculum, Teaching and Learning, 2001.
- Samson Nashon (Ph.D.). *Teaching and learning high school physics through analogies: A case study of Kenyan classrooms*. Department of Curriculum, Teaching and Learning, 2001.
- Thom Ryan (Ph.D.). *An action research study of secondary science assessment praxes*. Department of Curriculum, Teaching and Learning, 2000.

- Karen Goodnough (Ph.D.). *Exploring multiple intelligences theory in the context of science education: An action research project*. Department of Curriculum, Teaching and Learning, 2000.
- Wanja Gitari (Ph.D.). *An inquiry into the integration of indigenous knowledges and skills in the Kenyan secondary science curriculum*. Department of Curriculum, Teaching and Learning, 2000.
- Graham Passmore (Ph.D.). *Cognitive maps and the processes of comprehension explicating cognitive and metacognitive processes, structural and procedural knowledge*. Department of Curriculum, Teaching and Learning, 1998.
- Jan Van Aalst (Ph.D.). *Learning, knowledge building, and subject matter knowledge in school science*. Department of Curriculum, Teaching and Learning, 1998.
- Mary Gail Smith (Ph.D.). *Theorizing practice/practising theorizing: Inquiries in global home economics education*. University of British Columbia, Department of Curriculum Studies, 1996.
- Gary Hoban (Ph.D.). *A professional development model based on interrelated principles of teacher learning*. University of British Columbia, Department of Curriculum Studies, 1996.

Examination Committee Membership

- Josephine Mazzuca (Ph.D.). *Italian Canadian women “crossing the border” to graduate education*. Department of Curriculum, Teaching and Learning, 2000.
- Cynthia O’Donnell (Ed.D.). *Alberta women in the field*. Department of Curriculum, Teaching and Learning, 2000.
- Emilio Landolfi (Ph.D.). *Novice and experienced science teachers’ understanding and uses of practical activities*. Department of Curriculum, Teaching and Learning, 1998.
- Sheila Bennett (Ph.D.). *The relationship between teachers’ beliefs and their consultative practice in in-school team meetings*. Department of Curriculum, Teaching and Learning, 1998.

External Examination Reviewer

- Mijung Kim (Ph.D.). *The questions of scientific literacy and the challenges of contemporary science teaching: An ecological perspective*. University of Alberta, June, 2006.

Supervision in Progress

Ph.D. Supervision

- Jennifer Winslow Skinner: *Zoos and schools: Working towards sustainability*.
- Gabriel Ayyavoo
- Katarin MacLeod
- Michael Tan
- Lisa Romkey
- Ann McIlmoyle

- Susan Jagger

Ph.D. Committee Membership

- Joanne Nazir
- Leroy Clarke
- Solomon Belay
- Xiaohong Chi
- Farveh Ghafouri
- Jodi Asbell-Clarke
- Katherine Bellomo
- Peter Hanson
- Sheryl MacMath
- Cheryl Madeira
- Aamer
- Heidah
- Vicky Milosevic-Hill: *Female participation in engineering.*

M.A. Supervision

- Rebecca Weigand
- Tanya Williamson

MA Committee Member

- Gulshan Mir

Preservice Practicum Supervisions

- School visits, approx. 25 students per annum (1996-2008).

G. Teaching

Graduate Courses

- 2010 (fall) CTL 1207F: Teaching and Learning about Science: Issues and Strategies in Science, Technology and Society and Environment (STSE) Education.
- 2010 (fall) CTL 1799: Environmental Studies in Science, Mathematics and Technology Education
- 2010 (winter) CTL 1215H: Teaching and Learning about Science and Technology Beyond Schools.
- 2009 (fall) CTL 1799: Environmental Studies in Science, Mathematics and Technology Education

- 2008 (fall) CTL 1207F: Teaching and Learning about Science: Issues and Strategies in Science, Technology and Society and Environment (STSE) Education.
- 2007-08 (winter) CTL 1215H (formerly 1799) Teaching and Learning about Science and Technology Beyond Schools.
- 2006-2007 CTL 1207F: Teaching and Learning about Science: Issues and Strategies in Science, Technology and Society and Environment (STSE) Education.
- 2005-2006 CTL 1215H (formerly 1799) Teaching and Learning about Science and Technology Beyond Schools.
- 2004-2005 CTL 1207F: Teaching and Learning about Science: Issues and Strategies in Science, Technology and Society and Environment (STSE) Education.
- 2003-2004 CTL 1215H (formerly 1799) Teaching and Learning about Science and Technology Beyond Schools.
- 2001-2002 CTL 1207F: Teaching and Learning about Science: Issues and Strategies in Science, Technology and Society and Environment (STSE) Education.
- 2000-2001 CTL 1799F: Teaching and Learning about Science and Technology Beyond Schools.
- 1999-2000 CTL 1799F: Teaching and Learning about Science and Technology Beyond Schools.
- 1999-2000 CTL 1211S: Action Research in Science and Technology.
- 1998-1999 CTL 1207F: Teaching and Learning about Science: Issues and Strategies in Science, Technology and Society and Environment (STSE) Education.
- 1998-1999 CTL 1841S: Research Seminar in Science Education.
- 1997-1998 EDT 1354F: Teaching and Learning about Science: Issues and Strategies in Science, Technology, Society and Environment (STSE) Education.
- 1997-1998 EDT 3320S: Research Seminar in Science Education.
- 1996-1997 EDT 1354F: Teaching and Learning about Science: Issues and Strategies in Science, Technology and Society Education.
- 1996-1997 EDT 3320S: Research Seminar in Science Education.

B.Ed. Courses

- 2009-2010 EDU 1300: Secondary Science General Curriculum and Instruction Methods.
- 2008-2009 EDU 1300: Secondary Science General Curriculum and Instruction Methods.
- 2008-2009 EDU 1300: Secondary Science General Curriculum and Instruction Methods.
- 2007-2008 EDU 1300: Secondary Science General Curriculum and Instruction Methods.
- 2003-2005 EDU 1300: Secondary Science General Curriculum and Instruction Methods.
- 1996-2002 EDU 1300: Secondary Science Curriculum and Instruction Methods.
- 1994-1996 SCED 314: Secondary Science Curriculum and Instruction.
- 1994-1996 SCED 316: Secondary Chemistry Methods, Curriculum and Instruction.

H. Research Grants

External Grants

Year	Funding Source	Role	Title	Annual \$
2008-09	Social Science and Humanities Research Council (SSHRC) – Community-University-Research Alliance (CURA)	PI	Partnerships for Excellence in Environmental Education Project	\$18,500
2007-2011	Social Science and Humanities Research Council (SSHRC) Standard Grant	PI	Promoting teaching for scientific literacy through university-school district collaboration	118,000
2004-06	Scientists in School	PI	Impact study: Enhancing student learning and teacher professional development in science and technology	37,000
1996-99	SSHRC Standard Grant	PI	Learning about STSE education in and beyond schools: Issues in context through schools and science centres	67,000
1992	SSHRC Doctoral Fellowship	PI	Action research and STS education	14,000
Total				254,500

Internal Grants

Year	Funding Source	Role	Title	Annual \$
2010	OISE, SIG	Travel		600
2009	OISE	SMT Director	Centre for Science, Mathematics and Technology Education	100,000
2007	OISE, SIG	PI	STSE multimedia case methods - travel	400
2006	OISE	PI	Proposal development	7,500
2005-06	SSHRC Institutional Grant	PI	Teachers, researchers and professional practice: Co-constructing multimedia case methods in teacher education	3,500
2005	SSHRC Institutional	PI	Multimedia case methods in teacher	800

	Grant		education	
2004-06	SSHRC Institutional Grant	PI	Resistance and renewal: Promoting STSE perspectives through multimedia case methods in science teacher education	4,500
2003-06	Ministry of Education Transfer Grant	Co-PI (with Bencze & Hewitt)	Case methods in science and technology teacher education	24,000
1999-2003	Ministry of Education Transfer Grant	Co-PI (with Bencze, Hodson & Mylchreest)	Science and technology education through action research: Teachers making sense of curriculum reform while building assessment literacy	25,500 28,000 25,500
*1999-2003	Imperial Oil Centre for Studies in Science, Mathematics and Technology Education	PI	Learning science in and beyond school settings	22,000 16,000 12,800 7,000
*2001-04	Imperial Oil Centre for Studies in Science, Mathematics and Technology Education	Co-PI (with Bencze & Hewitt)	Developing exemplary multimedia case methods for preservice teacher education	10,000 5,000 5,000
2001-02	SSHRC Small Scale	Co-PI (with Bencze)	A just science education: Empowering communities for social and environmental action	2,500
2000-01	Ministry of Education Transfer Grant	Co-PI (with Bencze & Hewitt)	Case methods in science and technology teacher education	27,000
1996-97	Connaught	PI	Learning about STS in and beyond schools	10,000
1995-96	UBC and BC Ministry of Education Partnership Grant	PI	Learning about STS in and beyond schools	5,000
1996	SSHRC	PI	Science World and STS education: A new community of educators (Part 2)	5,000
1994	Rex Boughton Fund	PI	Exploring technology enhanced science instruction	1,200
1994-96	SSHRC Institutional Grant	PI	Science World and STS education: A new community of educators (Part 2)	2,000
Total				260,600

*Note that Imperial Oil Centre Grants resulted from internal competition amongst faculty applying for monies available through the Centre for Studies in Science Mathematics and Technology Education (formerly the Imperial Oil Centre for Studies in Science Mathematics and Technology Education).

I. Publications and Presentations

Summary

- 3 books
- 16 book chapters
- 32 articles in refereed journals
- 8 papers in conference proceedings
- 5 technical reports
- 104 academic conference papers
- 15 professional conference papers
- 6 keynote conference addresses

Books

Pedretti, E., & Little, C. (2008). *From engagement to empowerment: Reflections in science education*. Toronto: Pearson Education. (94 pages)

Alsop, S., Bencze, L., & Pedretti, E. (Eds.) (2005). *Analyzing exemplary science teaching: Theoretical lenses and a spectrum of possibilities for practice*. London: Open University Press. (249 pages)

Hodson, D., Bencze, L., Nyhof-Young, J. & Pedretti, E. (Eds.) (2002). *Changing science education through action research: Some experiences from the field*. Toronto: Imperial Oil Centre for Studies in Science, Mathematics and Technology Education, OISE, in association with University of Toronto Press. (363 pages)

Book Chapters

Pedretti, E., (in progress). The medium and the message: Unraveling visitors' experiences of *Body Worlds*. In E. Davidsson and Anders Davidsson. *Understanding interactions at science centers and museums – A sociocultural perspective*. Sense Publishers.

Berg van den, E., Wallace, J., & Pedretti, E. (2008). Multimedia cases, teacher education and teacher learning. In G. Knezek & J. Voogt (Eds.). *The International handbook of information technology in primary and secondary education* (pp. 475-488). New York: Springer.

Pedretti, E., & Soren, B. (2007). Reflections on *A Question of Truth*. In W. Pollock & K. McLean (Eds.). *Visitor voices in museum exhibitions* (pp. 73-78). Association of Science & Technology Centers, Washington, D.C.

Pedretti, E. (2007). Challenging convention and communicating controversy: Learning through issues-based museum exhibitions. In J. Falk, L. Dierking & S. Foutz (Eds.) *In principle, In practice: Museums as learning institutions* (pp. 121-135). New York: AltaMira Press.

Pedretti, E. (2005). STSE education: Principles and practices. In S. Alsop, L. Bencze & E. Pedretti (Eds.), *Analyzing exemplary science teaching: Theoretical lenses and a spectrum of possibilities for practice* (pp. 116-126). London: Open University Press.

- Alsop, S., Pedretti, E., & Bencze, L. (2005). Creating possibilities. In S. Alsop, L. Bencze & E. Pedretti (Eds.), *Analyzing exemplary science teaching: Theoretical lenses and a spectrum of possibilities for practice* (pp. 1-12). London: Open University Press.
- Pedretti, E., Bencze, L., & Alsop, S. (2005). Voices and viewpoints: What have we learned about exemplary science teaching? In S. Alsop, L. Bencze & E. Pedretti (Eds.), *Analyzing exemplary science teaching: Theoretical lenses and a spectrum of possibilities for practice* (pp. 205-216). London: Open University Press.
- Bencze, L., Alsop, S., & Pedretti, E. (2005). Integrating educational resources into school science praxis. In S. Alsop, L. Bencze and E. Pedretti (Eds.), *Analyzing exemplary science teaching: Theoretical lenses and a spectrum of possibilities for practice* (pp. 217-226). London: Open University Press.
- Pedretti, E. (2003). Teaching science, technology, society and environment (STSE) education: Preservice teachers' philosophical and pedagogical landscapes. In D. Zeidler (Ed.), *The role of moral reasoning on socio-scientific issues and discourse in science education* (pp. 219-240). Dordrecht, The Netherlands: Kluwer.
- Pedretti, E., Bencze, L., Hodson, D., DeCoito, I., & De Giuseppe, M. (2003). Building and sustaining communities of practice beyond the fold: Nurturing agency and action. In J. Wallace & J. Loughran (Eds.), *Leadership and professional development in science education: New possibilities for enhancing teacher learning* (pp. 219-237). London: RoutledgeFalmer.
- Pedretti, E. (2002). The road less travelled: Implementing STS education through action research. In D. Hodson, L. Bencze, J. Nyhof-Young, & E. Pedretti, (Eds.), *Changing science education through action research: Some experiences from the field* (pp. 66-89). Toronto: Imperial Oil Centre for Studies in Science, Mathematics and Technology Education, OISE, in association with University of Toronto Press.
- Bencze, L., Hodson, D., Nyhof-Young, J. & Pedretti, E. (2002). Towards better science: What we learned about science education through action research. In D. Hodson, L. Bencze, J. Nyhof-Young & E. Pedretti (Eds.), *Changing science education through action research: Some experiences from the field* (pp. 233-270). Toronto: Imperial Oil Centre for Studies in Science, Mathematics and Technology Education, OISE, and University of Toronto Press.
- Bencze, L., Hodson, D., Nyhof-Young, J. & Pedretti, E. (2002) Win some, lose some: Learning about action research in science education. In D. Hodson, L. Bencze, J. Nyhof-Young & E. Pedretti (Eds.), *Changing science education through action research: Some experiences from the field* (pp. 271-310). Toronto: Imperial Oil Centre for Studies in Science, Mathematics and Technology Education, OISE, in association with University of Toronto Press.
- Bencze, L., Hodson, D. Nyhof-Young, J. & Pedretti, E. (2002) Some guidelines for action researchers. In D. Hodson, L. Bencze, J. Nyhof-Young & E. Pedretti (Eds.), *Changing science education through action research: Some experiences from the field* (pp. 311-340). Toronto: Imperial Oil Centre for Studies in Science, Mathematics and Technology Education, OISE, in association with University of Toronto Press.
- Alsop, S., & Pedretti, E. (2001). Science, technology and society. In S. Alsop & K. Hicks (Eds.), *Teaching science* (pp. 193-208). London: Kogan Page.

Pedretti, E., & Forbes, J. (1999). A question of truth: Critiquing the culture and practice of science through science centres and schools. In D. Hodson (Ed.), *OISE papers in STSE education, 1* (pp. 87-106). Toronto: University of Toronto Press.

Articles in Refereed Journals

- Pedretti, E., Shanahan, M.C., Baker, L., & De Coito, I. (in press). Exploring the responses of underrepresented students in science to an elementary classroom outreach program. *School Science and Mathematics*.
- Tan, M., & Pedretti, E. (2010). Negotiating the complexities of environmental education: A study of Ontario teachers. *Canadian Journal of Science, Mathematics and Technology Education, 10*(1), 61-78.
- Bencze, L., Hewitt, J., & Pedretti, E. (2009). Personalizing and contextualizing multimedia case methods in university-based science teacher education: An important modification for promoting technological design in school science. *Research in Science Education, 39*, 93-109.
- Pedretti, E., Bencze, L., Hewitt, J., Romkey, L., & Jivraj, A. (2008). Promoting issues-based STSE perspectives in science teacher education: Problems of identity and ideology. *Science and Education, 17*(8/9), 941-960.
- Pedretti, E. (2006). Informal science education: Critical conversations and new directions. *Canadian Journal of Science, Mathematics and Technology Education, 6*(1), 1-4.
- Pedretti, E., & Soren, B. (2006). Reconnecting to the natural world through an immersive environment. *Canadian Journal of Science, Mathematics and Technology Education, 6*(1), 83-96.
- Yoon, S., Pedretti, E., Bencze, L., Hewitt, J., Perris, K. & Van Oostveen, R. (2006). Exploring the use of cases and case methods in influencing elementary preservice science teachers' self-efficacy beliefs. *Journal of Science Teacher Education, 17*, 15-35.
- Barrett, S., & Pedretti, E. (2006). Conflicting orientations to science-technology-society-environment education. *School Science and Mathematics, 106*(5), 21-31.
- Pedretti, E. (2004). Perspectives on learning through research on critical issues-based science centre exhibitions. *Science Education, 88*(1), S34-S47.
- Pedretti, E., & Soren, B. (2003). A question of truth: A cacophony of visitor voices. *Journal of Museum Education, 28*(3), 17-20.
- Bencze, L., DiGiuseppe, M., Hodson, D., Pedretti, E., Serebrin, L. & De Coito, I. (2003). Paradigmatic road blocks in elementary school science 'reform': Reconsidering nature-of-science teaching within a Rational-Realist milieu. *Systemic Practice and Action Research, 16*(5), 285-308.
- Bencze, L., Hewitt, J., Pedretti, E., Yoon, S., Perris, K., & van Oostveen, R. (2003). Science-specialist student-teachers consider promoting technological design projects: Contributions of multi-media case methods. *Research in Science Education, 33*(2), 164-187.

- Hewitt, J., Pedretti, E., & Bencze, L, Vaillancourt, B.D., & Yoon, S. (2003). New applications for multimedia cases: Fostering habits of praxis in pre-service teacher education. *Journal of Technology and Teacher Education*, 11(4), 483-500.
- Pedretti, E. (2002). T. Kuhn meets T. Rex: Critical conversations and new directions in science centres and museums. *Studies in Science Education*, 37, 1-42.
- Livingstone, P., Pedretti, E., & , Soren, B. (2001). Visitor comments and the socio-cultural context of science: Public perceptions and the exhibition, A Question of Truth. *Museum Management and Curatorship*, 9(4), 355-369.
- Pedretti, E., McLaughlin, H., Macdonald, R. & Gitari, W., (2001). Visitor perspectives on the nature and practice of science: Challenging beliefs through A Question of Truth. *Canadian Journal of Science, Technology and Mathematics Education*, 1(4), 399-418.
- Bencze, L., Hewitt, J., & Pedretti, E. (2001). Multi-media case methods in pre-service science education: Enabling an apprenticeship for praxis. *Research in Science Education*, 31(2), 191-209.
- Mayer-Smith, J., Pedretti, E., & Woodrow, J. (2000). Closing of the gender gap in technology enriched science education: A case study. *Computers & Education*, 35, 51-63.
- Woodrow, J., Mayer-Smith, J, & Pedretti, E. (2000). Assessing technology enhanced instruction: A case study in secondary science. *Journal of Educational Computing Research*, 23(1), 25-39.
- Grunau, H., Pedretti, E., Wolfe, E., & Galbraith, D. (2000). Collaborative professional development for science educators: Locating reflection in practice through a science methods course. *Journal of Science Teacher Education*, 11(1), 47-61.
- Pedretti, E. (1999). Decision-making and STS education: Exploring scientific knowledge and social responsibility in schools and science centres through an issues-based approach. *School Science and Mathematics*, 99(4), 174-181.
- Pedretti, E., Mayer-Smith, J., & Woodrow, J. (1999). Teaming technology enhanced instruction in the science classroom and teacher professional development. *Journal of Technology and Teacher Education*, 7(2), 131-143.
- Pedretti, E., Mayer-Smith, J. & Woodrow, J. (1998). Technology, text and talk: Students' perspectives on teaching and learning in a technology enhanced secondary science classroom. *Science Education*, 82(5), 569-589.
- Mayer-Smith, J., Pedretti, E. & Woodrow, J. (1998). An examination of how teachers' experiences in a culture of collaboration inform and influence technology implementation. *Journal of Science Education and Technology*, 7(2), 127-134.
- Mayer-Smith, J., Pedretti, E., & Woodrow, J. (1998). Embracing technology to improve science teaching and learning. *Journal of Staff Development*, 19(1) 26-30.
- Pedretti, E. (1997). The septic tank crisis: A case study of action research in science, technology and society (STS) education in an elementary school. *International Journal of Science Education*, 19(10), 1211-1230.
- Abbey, S., Bailey, B., Dubrick, J., Moore, K., Nhyof-Young, J., Pedretti, E., & Saranchuk, R. (1997). Multi-paradigm voices of doctoral students: Shifting the boundaries of learning through a collaborative study process. *International Journal of Qualitative Studies in Education*, 10(1), 101-115.
- Pedretti, E. (1996). Facilitating action research in the context of science, technology and society (STS) education: An experience in reflective practice. *Educational Action Research: An*

International Journal, 4(3), 307-327.

- Pedretti, E. (1996). Learning about science, technology and society (STS) through an action research project: Co-constructing an issues-based model for STS education. *School Science and Mathematics*, 96(8), 232-240.
- Woodrow, J., Mayer-Smith, J., & Pedretti, E. (1996). The impact of technology enhanced instruction on pedagogical beliefs and practices. *Journal of Science Education and Technology*, 5(3), 241-252.
- Pedretti, E., & Hodson, D. (1995). From rhetoric to action: Implementing science, technology and society (STS) education through action research. *Journal of Research in Science Teaching*, 32(5), 463-486.
- Pedretti, E., Soren, B., & Weiss, J. (1995). Science, technology and engineering: Building lifelong bridges. *International Journal of Technology and Design Education*, 5(3), 267-278.

Book Review

- Pedretti, E. (2002). Becoming a researcher: Sense and sensibility. *Canadian Journal of Science, Mathematics and Technology Education*, 2(4), 563-564.

Papers in Conference Proceedings

- Pedretti, E., Bencze, L., Hewitt, J., & Romkey, L. (2005). Resistance and renewal: Promoting STSE perspectives in physics teacher education through multimedia cases. *Proceedings of the ED-MEDIA 2005-World Conference on Educational Multimedia, Hypermedia & Telecommunications*, June 27-July 2, 2005, Montreal, Canada. CD ROM, 4492-4496.
- Calovini, T., & Pedretti, E. (2003). Issues in language, issues on display: Visitor response to the health text in the exhibition "A Question of Truth." In A. Landry & M. Allard (Eds.), *The museum reaching out to its visitors* (pp. 53-68). Quebec: MultiMondes.
- Livingstone, P., Pedretti, E., & Soren, B. (2003). Visitor views of science brought to light in the exhibition "A Question of Truth." In A. Landry & M. Allard (Eds.), *The museum reaching out to its visitors* (pp. 69-76). Quebec: MultiMondes.
- Bencze, L., Pedretti, E. & Hewitt, J. (2002). The niche concept in curriculum and professional development in science teacher education: Collaboration or individualization? In C. Kosnick, A. Freese & A. P. Samaras (Eds.), *Proceedings of Herstmonceux IV: The Fourth International Conference on Self-study of Teacher Education Practices: Making a difference through self-study (Volume 1)* (pp. 32-36), August 4-8, 2002, Herstmonceux Castle. East Sussex, England: East Sussex: S-STEP.
- Pedretti, E. (2000). A Question of Truth: Learning about science and culture through a science centre. *Colloquium on Learning in Museums V. Ontario Museum Association Museum Colloquium Proceedings*, Ontario.
- Grunau, H., Pedretti, E., Galbraith, D., & Wolfe, E. (1998). Professional development through reflection, collaboration and self-study: A case of growth among science teacher educators. *Proceedings of Herstmonceux II: Conversations in Community about the Self-Study of Teacher Education Practices*, East Sussex, England.
- Woodrow, J., Pedretti, E. & Mayer-Smith, J. (1998). Technology enhanced instruction: A model that improves science learning and teaching. *Proceedings of Ed-Media & Ed-Telecom 98*,

10th World conference on Educational Multimedia and Hypermedia & World Conference on Educational Telecommunications (pp. 1997-1999), Freiburg, Germany.

Pedretti, E. (1992). *Science, technology and society education: An Ontario teacher's perspective*. In S. Hills (Ed.), *Proceedings of the History and Philosophy of Science in Science Education Conference, II* (pp. 245-255), Queens University, Ontario.

Technical Reports

Nazir, J., Pedretti, E., Wallace, J., Montemurro, D., & Inwood, H. (2009). *Climate Change and Sustainable Development: The Response from Education. The Canadian Perspective*. A contribution towards the International Alliance of Leading Educational Institutions. (32 pages).

Pedretti, E., Baker, L., De Coito, I., & Shanahan, M.C. (2006). *Scientists in School Impact Study: Report to Scientists in School Organization*. Toronto: OISE. (174 pages)

Bencze, J. L., Hodson, D. & Nieswandt, M., & Pedretti, E. (2006). *Ontario Curriculum Review, Sciences, grades 9-12: Recommendations for Renewal in Ontario Intermediate (Secondary) Science Curriculum*. Toronto: OISE. (14 pages)

Orpwood, G., Pedretti, E. & Thorpe, R. (1994). *University of York and East York Board of Education, Science and Technology Education Indicators Project Report #1*. Report to the East York Board of Education. Toronto: OISE. (83 pages)

Soren, B., Weiss, J., Kelly, W., Pedretti, E., & Thompson, J. (1993). *Planning Kidscience, Ontario Science Centre Front-end Analysis*. Report to the Ontario Science Centre. Toronto: OISE.

Media Productions

Bellomo, K., Bencze, L., Hewitt, J., Pedretti, E. & Wallace, J. (in preparation). *Creating a positive classroom climate: Experiences from the field*. A multimedia documentary for teacher education (Multimedia CD). Toronto: OISE.

Bencze, L., Hewitt, J., Pedretti, E., Wallace, J., & K. Bellomo. (2005). *Helping students develop expertise for student-led science inquiry* (Multimedia CD). Toronto: OISE.

Bencze, L., Hewitt, J., Pedretti, E., Wallace, J. & Bellomo, K. (2005). *Promoting student-led science inquiry: Academic and practitioner perspectives*. (Multimedia CD; also, Streamed on the internet). Toronto: OISE.

Pedretti, E., Bencze, L. & Hewitt, J. (2003). *Teaching science through STSE issues-based approach*. (Multimedia CD). Toronto: OISE.

Hewitt, J., Pedretti, E., & Bencze, L. (2002). *Teaching science at the primary/junior level*. (Multimedia CD). Toronto: OISE.

Bencze, L., Hewitt, J., & Pedretti, E. (2001). *Teaching about robotics*. (Multimedia CD). Toronto: OISE.

Papers in Non-refereed journals

Williamson, T., & Pedretti, E. (2009). STSE and consequence maps: A useful tool to address socio-scientific issues. *Crucible*, 40(3), 1-3.

- Pedretti, E., & Forbes, J. (2000). STSE education: From curriculum rhetoric to classroom reality. *Orbit*, 31(3), 39-42.
- Pedretti, E. & Forbes, J. (1998). A Question of Truth: Exploring cultural and political interpretations of science and the scientific enterprise. *The Crucible*, 30(2), 11-14.
- Smith, B., Pedretti, E., Boulding, A.M., & MacGregor, S. (1993). Rhetoric to reality - development of a model for STSE education through action research. *Crucible*, 24(4), 25-27.
- Bencze, L., Barnett, J., Hodson, D., Lang, M., Pedretti, E., & Wood, G. (1993). Overlap the gap: Merging research with practice. *Crucible*, 24(4), 24.

Works in Progress

Books

- Wallace, J., Pedretti, E., Hewitt, J., & Bencze, L. (in progress). *Multimedia case methods in teacher education: Technology, theory and practice*.

Journal Articles

- Pedretti, E., Baker, L., De Coito, I., & Shanahan, M.C. (in progress). Enhancing teaching and learning in science through Scientists in School outreach. To be submitted to *Science Education*.
- Shanahan, M.C., Pedretti, E., Baker, L., & De Coito, I. (under review). Equity and excellence through Scientists in School. To be submitted to the *Canadian Journal of Science, Mathematics and Technology Education*.
- Bencze, L., Hewitt, J., Pedretti, E. (under review). Collaborative scholarship in science teacher education: Challenges and possibilities. To be submitted to the *International Journal of Research and Method in Education*.
- Pedretti, E., Bencze, L., Hodson, D., Mylchreest, L., DiGiuseppe, M., & Goodnough, K. (in progress). Swimming against the tide: Collaborative action research enabling contextualized learning in a milieu of standardization. To be submitted to *Educational Action Research*.
- Pedretti, E., Calovini, T., De Coito, I., Gitari, W., & Livingstone, P. (in progress). Public understanding of health and well-being through science centres. To be submitted to *Public Understanding of Science*.
- Pedretti, E., Bencze, L., Hewitt, J. & Skinner-Winslow, J. (in progress). Verisimilitude and multimedia cases: Bringing together the case teacher and preservice science student.
- DiGiuseppe, M., Bencze, L., Pedretti, E., Hodson, D., & Mylchreest, L., (in progress). Developing assessment tools for improving the quality of student learning.
- Pedretti, E., Di Giuseppe, M., Bencze, L., De Coito, I., & Hodson, D. (in progress). Enhancing STSE praxis through action research.
- Pedretti, E., Bencze, L., & Hewitt, J. (in progress). Multi-media case methods in science teacher education: Promises and problems.

Keynote and Invited Addresses

- Pedretti, E. (2009, November). From curiosity cabinets to critical issues-based exhibitions: New directions in science centres. Invited address presented at the VII ENPAC conference and the Brazilian Association of Science Education Research on Science, Culture and Citizenship. Florianopolis, Santa Catarina, Brazil.
- Pedretti, E., (2006, October). *Science, technology, society and the environment: Education for the new millennium*. Invited Keynote Public Lecture for the Royal Canadian Institute for the Advancement of Science, Toronto, Ontario.
- Pedretti, E. (2006, March). *Learning about science through science centre exhibitions*. Invited Keynote address to the International Science Museum and Science Teaching and Learning Conference, Taiwan National Science Centre and National Kaohsiung Normal University, Kaohsiung, Taiwan.
- Pedretti, E. (2004, May). *Scientific literacy through STSE education: Power, politics and paradoxes*. Invited Keynote address to the annual conference of the Science Consultants and Coordinators of Ontario (SCCAO), Kitchener, Ontario.
- Pedretti, E. (2000, November). *Bringing science, technology, society and environment education (STSE) into the classroom: Delights and dilemmas*. Invited Keynote address to the annual conference of the Science Teachers' Association of Ontario, Toronto.
- Pedretti, E. (June, 1999). *Science, technology, society and environment education: Changing the face of science and facing the change*. Invited Keynote address to the annual conference of Science Consultants and Coordinators Association of Ontario (SCCAO), Barrie, Ontario.

Academic Conference Presentations

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- Tan, M., & Pedretti, E. (2010, March). Environmentalism in the science classroom: Complex issues, complex understandings? Paper presentation at the annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, USA.
- Bellomo, K. & Pedretti, E. (2010, March). *Muddying the waters: Promoting environmental education through practice-theory disruptions*. Poster presentation at the annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, USA.
- Pedretti, E., Ayyavoo, G., Bellomo, K., & Tan, M. (2010, March). *Outdoor education centres and place-based education: Paradigms and possibilities*. Poster presentation at the annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, USA.
- Pedretti, E., & Bellomo, K. (2010, March). *Teachers and researchers learning in communities: Enhancing praxis in STSE education*. Poster presentation at the annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, USA.

- Pedretti, E., Ayyavoo, G., Bellomo, K., & Tan, M. (2009, April). *Environmental education at Outdoor Education Centres: From adventure to agency*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- Tan, M., Pedretti, E., Bellomo, K., & Ayyavoo, G. (2009, April). *Teachers imagining themselves: Negotiating the complexities of environmental education*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- Pedretti, E., Bellomo, K., Ayyavoo, G., & Tan, M. (2009, April). *Exploring teachers' beliefs and practices about environmental education*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Garden Grove, CA.
- Ayyavoo, G. Pedretti, E., Bellomo, K., & Tan, M. (2009, May). *Environmental education and outdoor education: Paradoxes and possibilities*. Paper presented at the annual meeting of the Canadian Society for Studies in Education, Ottawa, On.
- Pedretti, E. (June, 2008). Exploring old exhibitions in new ways. Paper presented at the Canadian Association of Science Centres (CASC), London, ON.
- Pedretti, E., DeCoito, I., Baker, L., & Shanahan, M.C. (2008, June). *Exploring teaching and learning in science through an outreach program*. Paper presented at the annual meeting of the Canadian Society for Studies in Education, Vancouver, BC.
- Scott, J., & Pedretti, E. (2008, June). *Virtual field trips: Moving beyond the four walls of the classroom*. Paper presented at the annual meeting of the Canadian Society for Studies in Education, Vancouver, BC.
- DeCoito, I., Pedretti, E., Di Giuseppe, M., Bencze, L., Hodson, D., & Mylchreest, L. (2008, March). *The role of administration in supporting action research*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Baltimore, MD.
- Pedretti, E., Bencze, L., Hewitt, J., & Skinner-Winslow, J. (2008, March). *Verisimilitude and multi-media case use: Exploring interactions between a case teacher and preservice science students*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.
- Shanahan, M.C., Pedretti, E., DeCoito, I., & Baker, L. (2008, March). *Making a case for continued funding of science outreach programs through exploring the affective responses of underrepresented students*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.
- Di Giuseppe, M., DeCoito, I., Pedretti, E., Bencze, L., Hodson, D., & Mylchreest, L. (2008, March). *Nudging STSE perspectives into the mainstream: Overcoming resistance through action research*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.
- Bencze, L., Hewitt, H., Pedretti, E., Wallace, J., Bellomo, K., & Anwar, A. (2008, March). *Representing conflicting views about science: Dilemmas and possibilities*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

- Pedretti, E., Bencze, L., & Hewitt, J. (2007, November). *Identity and ideology: Challenging traditional images of science teaching through multimedia case methods*. Paper presented at the Australian Association for Research in Education (AARE), Fremantle, Australia.
- Van den Berg, E., Wallace, J., & Pedretti, E. (2007, August). *Teacher learning with digital video: Purposes and conceptualizations*. Symposium paper presented at annual European Association of Research on Learning and Instruction (EARLI) Conference, Budapest, Hungary.
- Pedretti, E., Bencze, L., Hewitt, J., Jiwani, A., & Romkey, L. (2007, June). *Promoting issues-based STSE perspectives in science teacher education: Problems of identity and ideology*. Symposium paper presented at the annual meeting of the International History and Philosophy of Science Teaching Conference (IHPST), Calgary, AB, Canada.
- Pedretti, E., Bencze, L., Hewitt, J., & Skinner-Winslow, J. (2007, May). *Verisimilitude and multimedia cases: Bringing together the case teacher and preservice science students*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Saskatoon, SK, Canada.
- Pedretti, E., Baker, L., De Coito, I., & Shanahan, M.C. (2007, April). *Enhancing teaching and learning in science through Scientists in School outreach*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), New Orleans, LA.
- Shanahan, M.C., Pedretti, E., Baker, L., & De Coito, I., (2007, April). *Equity and excellence through Scientists in School*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), New Orleans, LA.
- Pedretti, E., Bencze, L., Hewitt, J., Jiwani, A., & Romkey, L. (2006, May). *Identity and ideology: Promoting science, technology, society and environment (STSE) perspectives in science teacher education through multi-media cases*. Paper presented at the annual meeting of the Canadian Society for the Study of Education (CSSE), York University, Toronto, ON, Canada.
- Bencze, L., Hewitt, J., & Pedretti, E., Wallace, J., Bellomo, K., & Phillips, D. (2006, May). *Student-teachers' tendencies for equally representing conflicting views about science*. Paper presented at the annual meeting of the Canadian Society for the Study of Education (CSSE), York University, Toronto, ON, Canada.
- Pedretti, E., Bencze, L., Hewitt, J., Romkey, L., & Sharkawy, A. (2006, April). *Becoming a physics teacher: Learning about STSE education through multi-media cases*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- Bencze, L., Hewitt, J., & Pedretti, E., Wallace, J., Bellomo, K., & Phillips. (2006, April). *Student teachers' tendencies to conceal their preferences when teaching contradictory views about science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- Pedretti, E., Bencze, L., Hewitt, J., Romkey, L., & Sharkawy, (2006, April). *Shifting landscapes: Promoting STSE perspectives in physics teacher education through multi-media cases*. Paper presented at the annual meeting of the American Education Research Association (AERA), San Francisco, CA.
- Pedretti, E., Bencze, L., & Hewitt, J. (2005, August). *Physics teachers and the adoption of STSE perspectives through multi-media case methods*. Paper presented at the biennial conference of the European Science Education Research Association (ESERA), Barcelona, Spain.

- Pedretti, E., Bencze, L., & Hewitt, J. (2005, June). *Problematizing multi-media case methods in teacher education*. Paper presented at the International Ed-Media Conference, Montreal, QC, Canada.
- Pedretti, E., & Soren, B. (2005, May). *Rekindling connections to the natural world through immersive environments*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), London, ON, Canada.
- Bencze, L., Alsop, S., & Pedretti, E. (2005, May). *School science for sustainable development: An antidote to pathological local/global economization*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), London, ON, Canada.
- Hewitt, J., Pedretti, E., Bencze, J. L., Jiwani, A., & Simand, H. (2005, May). *An innovative use of video case studies in teacher education*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), London, ON, Canada.
- Pedretti, E., Bencze, L., & Hewitt, J. (2005, May). *The promise and problems of multi-media case methods in teacher education*. Paper presented at the international conference on Teacher Education for the Schools We Need, Toronto, ON, Canada.
- Pedretti, E. (2004, November). *Perspectives on learning through research on critical issues-based science centre exhibitions*. Invitational paper presented at the In Principle In Practice International Conference. Annapolis, MD.
- Pedretti, E., Bencze, L., Hewitt, J., Jiwani, A. & Romkey, L. (2004, June). *Contextualized multimedia case methods for promoting STSE Education in science teacher education*. A paper presented at the annual conference of the Canadian Society for the Study of Education (CSSE), Winnipeg, MB, Canada.
- Pedretti, E., Bencze, L., & Hewitt, J. (2004, June). *The promise of multi-media case methods: Promoting science, technology, society and environment (STSE) perspectives in science teacher education*. Paper presented at ED-MEDIA World conference on Educational Multimedia Hypermedia & Telecommunications, Lugano, Switzerland.
- Pedretti, E., Bencze, L., Hewitt, J., Jiwani, A., Romkey, L., & Van Oostveen, R. (2004, April). *Learning about science, technology, society and environment (STSE) perspectives through case methods in teacher education*. Paper presented at the annual meeting of the American Educational Research Association (AERA), San Diego, CA.
- Hewitt, J., Pedretti, E., and Bencze, L. (2004, April). *Using video cases to promote introspection among preservice teachers*. Paper presented at the annual meeting of the American Educational Research Association (AERA). San Diego, CA.
- Pedretti, E. (2004, April). *Perspectives on learning through critical issues-based science centre exhibitions*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Vancouver, BC.
- Pedretti, E., Hewitt, J., Bencze, L., Jiwani, A., Romkey, L., & Van Oostveen, R. (2004, April). *Contextualizing and promoting STSE Perspectives through multi-media case methods*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Vancouver, BC.
- Pedretti, E. (2004, April). *Getting centred: A review of the Imperial Oil Centre for Studies in Science, Mathematics and Technology Education*. Invited panel presentation at the annual meeting of the National Association for Research in Science Teaching (NARST), Vancouver, BC.

- Barrett, S., & Pedretti, E. (2004, April). *Conflicting orientations to science-technology-society-environment education*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARSR), Vancouver, BC.
- Bencze, L., Hewitt, J., Pedretti, E., & Bowen, M. (2003, March). *Bringing more contextualization to case methods in university-based science teacher education*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, PA.
- Pedretti, E. (2002, October). *Rising to the challenge: Teaching science through science, technology, society and environment (STSE) education*. Rhodes, Greece.
- Hewitt, J., Pedretti, E., & Bencze, L., Vaillancourt, D. & Yoon, S. (2002, May). *Multimedia cases as tools for fostering habit of praxis in preservice teacher education*. Paper presented at the annual conference of the Canadian Society for the Study of Education (CSSE), Toronto, ON, Canada.
- Bencze, L., Hewitt, J., Pedretti, E., Yoon, S., van Oostveen, R., & Perris, K. (2002, May). *Technology informed pedagogies in science-specialist student teachers: Influences from a multi-media case method*. Paper presented as part of a multiple paper set at the annual meeting of the Canadian Society for the Study of Education (CSSE), Toronto, ON, Canada.
- Yoon, S., Pedretti, E., Bencze, L., Hewitt, J., Perris, K., & van Oostveen, R. (2002, May). *Exploring influences of case methods on pedagogical beliefs and practices: Creating opportunities for agency, practice and community building*. Paper presented as part of a multiple paper set at the annual meeting of the Canadian Society for the Study of Education (CSSE), Toronto, ON, Canada.
- Hodson, D., Serebrin, L., Bencze, L., Pedretti, E., DeCoito, I., DiGiuseppe, M. & Goodnough, K. (2002, May). *The STAR Experience: Building a tradition of reflective practice and professional growth*. Paper presented as part of a multiple paper set at the annual meeting of the Canadian Society for the Study of Education (CSSE), Toronto, ON, Canada.
- Mylchreest, L., DeCoito, I., Pedretti, E., Hodson, D., Bencze, L. & DiGiuseppe, M. (2002, May). *Professional development: The role of principals in supporting action research*. Paper presented as part of a multiple paper set at the annual meeting of the Canadian Society for the Study of Education (CSSE), Toronto, ON, Canada.
- Pedretti, E. & DiGiuseppe, M., (2002, May). *Enhancing STSE praxis through action research*. Paper presented at the Canadian Society for the Study of Education Thirtieth Annual Conference (CSSE), Toronto, ON, Canada.
- Pedretti, E., Soren, B. & Calovini, T. (2002, May). *Learning science through aesthetics; The Butterfly Conservatory and the visitor experience*. Paper presented at the Canadian Society for the Study of Education (CSSE) Thirtieth Annual Conference, Toronto, ON, Canada.
- Bencze, L., Hewitt, J. & Pedretti, E. (2002, August). *The niche concept in curriculum and professional development in science teacher education: Collaboration or individualization?* A presentation at the fourth international conference on Self-study of Teacher Education Practices, sponsored by the Self-Study of Teacher Practices SIG of the American Educational Research Association (AERA), Herstmonceux Castle, England.
- Pedretti, E., Di Giuseppe, M., Bencze, L., De Coito, I., & Hodson, D. (2002, April) *Enhancing STSE praxis through action research*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), New Orleans, LA.
- Hewitt, J., Pedretti, E., & Bencze, L. (2002, April). *Interacting with multimedia cases: An*

- innovative approach to science teacher preparation*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), New Orleans, LA.
- Bencze, L., Hewitt, J., Pedretti, E., Yoon, S., & Van Oostveen, R. (2002, April). *Technoscience education in practice: A case-method window into contextual teaching and learning for pre-service science specialist teachers*. Paper presented at the annual meeting of the American Education Research Association (AERA), New Orleans, LA.
- Hewitt, J., Pedretti, E., & Bencze, L. (2002, April). *Student teacher introspection: Stimulating habits of praxis through case method interaction*. Paper presented at the annual meeting of the American Education Research Association (AERA), New Orleans, LA.
- Pedretti, E., Soren, B., & Calovini, T. (2002, April). *Aesthetic aspects of science learning: The appeal of the butterfly conservatory experience*. Interactive paper and poster session presented at the annual meeting of the American Education Research Association (AERA), New Orleans, LA.
- Yoon, S., Pedretti, E., Hewitt, J., & Van Oostveen, R. (2002, April). *Engaging in communities of practice through the use of cases and case methods in preservice elementary science education*. Paper presented at the annual meeting of the American Education Research Association (AERA), New Orleans, LA.
- Pedretti, E., Bencze, L., Hodson, D., Di Giuseppe, M., & Goodnough, K. (2001, September). *Science and technology education through action research*. Paper presented at the annual conference of the European Educational Research Association (EERA), University Charles de Gaulle, Lille, France.
- Soren, B., Pedretti, E. & Livingstone, P. (2001, August). *Comment cards and visitor's understanding of the cultural context of science*. Paper presented at the annual meeting of the Visitor Studies Association, Orlando, FL.
- Soren, B., Livingstone, P., & Pedretti, E. (2001, May). *Making meaning from the masses: What large amounts of visitor data can tell us*. Paper presented at the American Association of Museums, Meetings and Professional Education Departments, St Louis, MO.
- Livingstone, P., Pedretti, E., & Soren, B. (2001, May). *Visitor views of science brought to light in the exhibition: A Question of Truth*. Colloquium on current research into learning the nature of science at the Ontario Science Centre. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Quebec City, QC, Canada.
- Calovini, T., & Pedretti, E. (2001, May). *Visitor responses to the health text in the exhibition: A Question of Truth*. Colloquium on current research into learning the nature of science at the Ontario Science Centre. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Quebec City, QC, Canada.
- Pedretti, E., Bencze, L., Di Giuseppe, M., & Goodnough, K. (2001, April). *Emancipatory action research in a milieu of regulatory curriculum reform: Empowering science teachers through a school district/university collaboration*. Paper presented at the annual meeting of the American Education Research Association (AERA), Seattle, WA.
- Pedretti, E., De Coito, I., Calovini, T., Gitari, W. & Livingstone, P. (2001, April). *Issues-based exhibitions at a science centre: Visitor responses to alternative perspectives on health*. Paper presented at the annual meeting of the American Education Research Association (AERA), Seattle, WA.
- Pedretti, E., Livingstone, P., & Soren, B., (2001, April). *Visitor views of science brought to light in the exhibit "A Question of Truth"*. Poster presented at the annual meeting of the

- American Education Research Association (AERA), Seattle, WA.
- Pedretti, E. (2001, March). *The role of moral reasoning on socio-scientific issues and discourse in science education*. Invited paper as part of a symposium at the annual meeting of the National Association for Research in Science Teaching (NARST), St. Louis, MO.
- Di Giuseppe, M., Bencze, L., Pedretti, E., Hodson, D., & Mylchreest, L. (2001, March). *Developing assessment tools for improving the quality of student performance*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), St. Louis, MO.
- Pedretti, E., De Coito, I., Calovini, T., Gitari, W. & Livingstone, P. (2001, March). *A Question of Truth: Exploring visitors' understanding of health and well-being through a science centre exhibition*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), St. Louis, MO.
- Pedretti, E., Bencze, L., Goodnough, K., & Di Giuseppe, M., (2001, March). *Building collaboration in a university-school partnership: Strategies adopted in the STAR project*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), St. Louis, MO.
- Pedretti, E. (2000, May). *Science, technology, society and environment (STSE) education: Crossing the border from pre-service education to classroom practice*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Edmonton, AB, Canada.
- Mayer-Smith, J., Pedretti, E. & Woodrow, J. (2000, May). *Closing the gender gap in technology enriched science education*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Edmonton, AB, Canada.
- Pedretti, E. (2000, April). *Discovery and disparity: Pre-service science teachers' beliefs and actions regarding science, technology, society and environment (STSE) education*. Paper presented at the annual meeting of the American Educational Research Association (AERA), New Orleans, LA.
- Pedretti, E., Bencze, L., & Hewitt, J. (2000, April). *Multimedia case studies in preservice science education: Linking practice to theory*. Invited paper presented at the annual meeting of the American Educational Research Association (AERA), New Orleans, LA.
- Pedretti, E., & Forbes, J. (2000, April). *Representations of science and technology in and beyond schools*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), New Orleans, LA.
- Pedretti, E. (1999, October). *A Question of Truth: Learning about science and culture through a science centre*. Paper presented at the Ontario Museum Association (OMA) Conference, Hamilton, ON, Canada.
- Pedretti, E. (1999, July). *Critiquing the culture and practice of science with pre-service science students*. Paper presented at the conference of the International Study Association for Teachers and Teaching (ISATT), Dublin, Ireland.
- Pedretti, E., & Forbes, J. (1999, April). *A question of truth: Critiquing the culture and practice of science through science centers and schools*. Paper presented at the annual meeting of the American Educational Research Association (AERA), Montreal, QC, Canada.
- Pedretti, E., Mayer-Smith, J., & Woodrow, J. (1999, April). *Gender differences in computer technology: A hyped difference*. Paper presented at the annual meeting of the American Educational Research Association (AERA), Montreal, QC, Canada.

- Pedretti, E. (1999, February). *The road less traveled - and that has made all the difference: A case study of professional development in science education through action research*. Paper presented at the annual meeting of the Hawaii Educational Research Association, University of Hawaii.
- Pedretti, E., Grunau, H., Galbraith, D., & Wolfe, E. (1998, August). *Professional development through reflection, collaboration and self-study: A case of growth among science teacher educators*. Paper presented at the Herstmonceux II: Conversations in Community about the Self-Study of Teacher Education Practices, East Sussex, England.
- Pedretti, E., Macdonald, R. & Kithinji, W., (1998, May). *Public literacy and the practice of science: exploring "a question of truth" through a science centre*. Paper presented at the Congress of the Social Sciences and Humanities Conference, Ottawa, ON, Canada.
- Pedretti, E. (1998, April). *A Question of Truth: Exploring the culture and practice of science through science centres*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Diego, CA.
- Mayer-Smith, J., & Pedretti, E. (1998, April). *Teacher enhanced instruction and teacher professional development: Teachers transforming practice*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Diego, CA.
- Pedretti, E., Mayer-Smith, J. & Woodrow, J. (1998, April). *Teaming technology enhanced science instruction in the classroom with professional development*. Paper presented at the annual meeting of the American Educational Research Association (NARST), San Diego, CA.
- Woodrow, J., Mayer-Smith, J. & Woodrow, J. (1998, April). *Interactive assessment and technology enhanced secondary science instruction*. Paper presented at the annual meeting of the American Educational Research Association (NARST), San Diego, CA.
- Pedretti, E. (1997, June). *Debate and dialogue in STS education: Schools and science centres working together*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), St. John's, NL, Canada.
- Grunau, H., Pedretti, E., Wolfe, E. & Galbraith, D. (1997, June). *Collaborative inquiry as professional development: A model for and a case of growth*. Paper presented at the annual meeting of the Canadian Society for Studies in Education (CSSE), St. John's, NL, Canada.
- Mayer-Smith, J., Pedretti, E. & Woodrow, J. (1997, June). *Exploring how teachers' experiences with technology enhanced science instruction inform and influence technology implementation*. Paper presented at the annual meeting of the Canadian Society for Studies in Education (CSSE), St. Johns, NL, Canada.
- Pedretti, E. (1997, March). *Schools and science centres working together: An STS issues-based approach to science learning*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Chicago, IL.
- Pedretti, E., Mayer-Smith, J. & Woodrow, J. (1997, March). *Technology, text and talk: Students' perspectives on learning in a technology enhanced secondary science classroom*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Chicago, IL.
- Woodrow, J. Mayer-Smith, J., & Pedretti, E. (1997, March). *Technology enhanced instruction: A successful model for science education*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Chicago, IL.
- Mayer-Smith, J., Pedretti, E. & Woodrow, J. (1997, March). *Learning from teaching with*

- technology: An examination of how teachers' experiences and perspectives inform technology implementation.* Paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, IL.
- Woodrow, J., Mayer-Smith, J. & Pedretti, E. (1997, March). *Exploring the impact of a CD-ROM based professional development program in technology enhanced instruction.* Paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, IL.
- Pedretti, E. (1996, June). *Learning about science, technology and society (STS) education in and beyond schools: Science centres and schools working together.* Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Brock University, St. Catharines, ON, Canada.
- Mayer-Smith, J., & Pedretti, E. (1996, June). *Students' perspectives on teaching and learning in a technology enhanced secondary science classroom.* Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Brock University, St. Catharines, ON, Canada.
- Pedretti, E. (1996, April). *Negotiating and navigating through action research: Co-constructing an issues-based model for science, technology and society (STS) education.* Paper presented at the annual meeting of the American Educational Research Association (AERA), New York.
- Pedretti, E. (1996, April). *Learning about science, technology and society (STS) education: issues in context through a science centre.* Symposium presented at the annual meeting of the American Educational Research Association (AERA), New York.
- Pedretti, E., Woodrow, J., & Mayer-Smith, J. (1996, April). *Lessons learned from a technology enhanced science classroom: Multiple perspectives on teaching, learning, and collaboration.* Paper presented at the annual meeting of the American Educational Research Association (AERA), New York.
- Pedretti, E. (1995, June). *Facilitating action research in the context of science, technology and society (STS) education.* Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Montreal, QC, Canada.
- Orpwood, G., Pedretti, E., Thorpe, R. & Barnett, J. (1995, June). *Science and technology education indicators: Helping a school board monitor system wide improvement.* Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Montreal, QC, Canada.
- Pedretti, E. (1995, April). *Action research: An experience in facilitating reflective practice.* Paper presented at annual meeting of the American Educational Research Association (AERA), San Francisco, CA.
- Orpwood, G., & Pedretti, E. (1995, April). *How would you know if your science education reform is a success? Developing science education indicators at the school district level.* Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA.
- Pedretti, E. (1994, April). *From rhetoric to reality: Action research in science, technology and society education.* Paper presented at the annual meeting of the American Educational Research Association (AERA), New Orleans, LA.
- Pedretti, E. (1994, April). *Science, technology and engineering: Building lifelong bridges.* Paper presented at annual meeting of the American Educational Research Association (AERA),

New Orleans, LA.

- Pedretti, E., et al. (1994, April). *Alternative learning: The tests and trials of collaborative work*. Paper presented at annual meeting of the American Educational Research Association (AERA), New Orleans, LA.
- Pedretti, E. & Hodson, D. (1993, June). *Implementing science, technology and society education through action research*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Ottawa, ON, Canada.
- Abbey, S., Pedretti, E., et al. (1993, June). *Multi-paradigm voices of doctoral students: Shifting the boundaries of learning through a collaborative study process*. Paper presented at annual meeting of the Canadian Society for Studies in Education (CSSE), Ottawa, ON, Canada.
- Abbey, S., Pedretti, E., et al. (1993, April). *Multi-paradigm voices of doctoral students: Charting a collaborative study process*. Paper presented at the annual meeting of the American Educational Research Association (AERA), Atlanta, GA.
- Pedretti, E. (1992, May). *Science, technology and society education: A teacher's perspective*. Paper presented at conference of the History and Philosophy of Science in Science Education (HPSIS), Kingston, ON, Canada.
- Pedretti, E. (1991, June). *Ethics and values in science education: A case study*. Paper presented at the annual conference of the Canadian Society for Studies in Education (CSSE), Kingston, ON, Canada.

Professional Conference Presentations

- Pedretti, E., Bellomo, K., Tan, M., Wevers, O., Dehal, L., Reese, E., & Harvey, M. (November, 2009). Exploring the 'E' in STSE through a Professional Learning Community (PLC). Paper presented at the annual Science Teachers Association of Ontario, Toronto, On.
- Pedretti, E. (2008, November). A time for change: Teaching and Learning through STSE education. Paper presented at the annual Science Teachers Association of Ontario, Toronto, On.
- Williamson, T., & Pedretti, E. (2007, November). *Making connections in science: STSE education and a sustainable future*. Paper presented at the annual conference of the Science Teachers' Association of Ontario (STAO), Toronto, ON, Canada.
- Pedretti, E., Pedretti, E., Baker, L., De Coito, I., Shanahan, M.C., & Adams, C. (November, 2006). *Hands-on, minds-on: Lessons learned from Scientists in School*. Paper presented at the annual conference of the Science Teachers' Association of Ontario (STAO), Toronto, ON, Canada.
- Pedretti, E. (2004, May). *Scientific literacy through STSE education: Power, politics and paradoxes*. Paper presented at the annual conference of Science Consultants and Coordinators of Ontario (SCCAO). Kitchener, ON, Canada.
- Pedretti, E., & Forbes, J. (1999, November). *Making STSE connections in the secondary curriculum*. Paper presented at the annual conference of the Science Teachers' Association of Ontario (STAO), Toronto, ON, Canada.
- Pedretti, E. (1999, November). *Transforming science teaching and learning with technology*. Paper presented at the annual conference of the Science Teachers' Association of Ontario (STAO), Toronto, ON, Canada.

- Pedretti, E. (1998, November). *Exploring science and technology education in schools and science centres: Partnerships and possibilities*. Paper presented at the annual conference of the Science Teachers' Association of Ontario (STAO), Toronto, ON, Canada.
- Pedretti, E. (1998, November). *Exploring the nature and practice of science: Schools, universities and science centres working together*. Paper presented at the annual conference of the Science Teachers' Association of Ontario (STAO), Toronto, ON, Canada.
- Pedretti, E., Mayer-Smith, J. & Woodrow, J. (1997, November). *Exploring technology enhanced secondary science instruction (TESSI): Teachers' and students' perspectives*. Paper presented at the Science and Technology Conference, Toronto, ON, Canada.
- Pedretti, E. & Mayer-Smith, J. (1996, May). *Inhabiting each other's castles: A look into science teacher education*. Paper presented at Catalyst Conference (Science Teachers' Association of British Columbia), Vancouver, BC, Canada.
- Pedretti, E. (1994, October). *Meeting the challenge of science, technology and society (STS) education*. Presented at the Catalyst Conference (Science Teachers' Association of British Columbia), Vancouver, BC, Canada.
- Mayer-Smith, J. & Pedretti, E. (1994, October). *What the heck are they teaching them "out there" anyway?* Presented at the Catalyst Conference (Science Teachers' Association of British Columbia), Vancouver, BC, Canada.
- Bencze, L., Payne, D. & Pedretti, E. (1992, November). *The implementation and implications of Science and Society OAC*. Paper presented at the annual conference of the Science Teachers' Association of Ontario (STAO), Toronto, ON, Canada.
- Bencze, L., Payne, D. & Pedretti, E. (1992, November). *The implementation and implications of Science and Society OAC, Part 2*. Paper presented at the annual conference of the Ontario Science Teachers' Association of Ontario (STAO), Toronto, ON, Canada.

J. Other Scholarly and Professional Activities

Visiting Scholar Appointments

- King's College London, UK, September 15, 2003 – November 3, 2003
- Curtin University of Technology, Science and Mathematics Education Centre, Perth, Western Australia, January 20, 2003 – April 21, 2003

Invited University/Academic Presentations

- Pedretti, E. (May, 2009). Outdoor education centres and environmental education: Exploring ecological and transformative perspectives. Queensland University of Technology, Brisbane, Australia.
- Pedretti, E. (October, 2009). From engagement to empowerment: STSE and science education. York University. Toronto, Ontario, Canada.
- Pedretti, E. (June, 2008). Learning through issues-based exhibitions in science centres. Invited paper presented at the Canadian Association of Science Centres Annual Conference, London, Ontario.

- Pedretti, E. (February, 2008). *Promoting STSE perspectives in science teacher education; Power, politics and paradoxes*. Lakehead University, Thunder Bay, Ontario.
- Pedretti, E. (March, 2007). *STSE education: In theory, in practice*. University of South Florida, Tampa, Florida.
- Pedretti, E. (March, 2006). *A Question of Truth: Visitor perspectives on the nature of science*. National Kaohsiung Normal University, Kaohsiung, Taiwan.
- Pedretti, E. (July 19, 2004). *Multimedia case methods in teacher education*. Curtin University of Technology, Perth, Western Australia.
- Pedretti, E. (April 10, 2003). *Action research in science and technology education; Building bridges*. Edith Cowan University, Perth, Western Australia.
- Pedretti, E. (April 7, 2003). *Issues in conducting qualitative research*. Curtin University of Technology, Science and Mathematics Education Centre, Perth, Western Australia.
- Pedretti, E. (April 2, 2003). *Challenging convention and communicating controversy: Perspectives on adopting issues-based approaches to science centre exhibitions*. SciTech Science Centre, Perth, Western Australia.
- Pedretti, E. (March 6, 2003). *Pre-service teachers' perspectives and practices in STSE education: Challenging convention and communicating controversy*. Curtin University of Technology, Science and Mathematics Education Centre, Perth, Western Australia.
- Pedretti, E. (October 3, 2002). *Challenging convention and communicating controversy: Perspectives on adopting issues-based approaches to science centre exhibitions*. King's College, London, UK.
- Pedretti, E. (November 21, 2001). *Re-culturing and re-presenting science through STSE education: Explorations in school and non school settings*. University of Alberta. Edmonton, Alberta, Canada.
- Pedretti, E., & Forbes, J., (2000, February). *Science education: A question of truth*. Brock University Graduate Students, St. Catharines, ON, Canada.
- Pedretti, E. (1999, April). *A Question of Truth: Critiquing the culture and practice of science in and beyond schools*. Sponsored by the Social and Cultural Studies, Global Education and Transformative Pedagogies, and the Centre for Studies in Science, Mathematics and Technology Education, Toronto, ON, Canada.
- Pedretti, E. (1998, November). *Teaching chemistry at the secondary level*. Scarborough College Campus, Ontario, ON, Canada.
- Pedretti, E. (1998, February). *Technology and its role in the classroom*. World Affairs Conference, Upper Canada College, Toronto, ON, Canada.
- Pedretti, E. (1998, February). *Action research and teacher education*. York University, Toronto, ON, Canada.
- Pedretti, E. (1997, January). *The road less travelled - and that has made all the difference: Case studies of critical praxis in science, technology and society (STS) education*. Centre for Teacher Development, OISE, ON, Canada.
- Pedretti, E. (1997, March). *Mine games: An exploration of issues education in schools and Science Centres*. Science and Technology Interest Group, OISE, ON, Canada.
- Pedretti, E. (1997, April). *Science centres and schools working together*. The Second Annual Showcase of Research and Teaching, OISE, ON, Canada.
- Pedretti, E. (1996, November). *An introduction to chemistry methods and safety*. Scarborough College Campus, University of Toronto, ON, Canada.

Professional Workshops/Seminars

- Pedretti, E. (October, 2009). *Understanding STSE in the new curriculum: Principles and Practices*. A presentation for science educators. Simcoe County District School Board. Barrie, On. Canada.
- Pedretti, E. (November, 2007). *From engagement to empowerment: Reflections on science education for Ontario*. A presentation for Science Coordinators and Consultants Association of Ontario (SCCAO), Toronto, ON, Canada.
- Pedretti, E. (November, 2007). *From engagement to empowerment: Reflections on science education for Ontario*. A presentation for science educators, London, ON, Canada.
- Pedretti, E. (November, 2007). *From engagement to empowerment: Reflections on science education for Ontario*. A presentation for science educators, Mississauga, ON, Canada.
- Pedretti, E. (November, 2007). *From engagement to empowerment: Reflections on science education for Ontario*. A presentation for science educators, Richmond Hill, ON, Canada.
- Pedretti, E. (November, 2007). *From engagement to empowerment: Reflections on science education for Ontario*. A presentation for science educators, Ottawa, ON, Canada.
- Pedretti, E. (June 20, 2007). *Science, technology, society and environment (STSE) education: An issues-based approach*. A workshop presentation for teachers, Bishop Strachan Secondary School. Toronto, ON, Canada.
- Alsop, S., Bencze, L. & Pedretti, E. (September, 2006). *Analyzing Exemplary Science Teaching revisited*. A workshop presentation for science teachers, Upper Canada College, Toronto, ON, Canada.
- Pedretti, E., Shanahan, M.C., & Baker, L. (May, 2006). *Scientists in School impact study: What have we learned?* Presentation to the Scientists in School Board of Directors, Toronto, ON, Canada.
- Pedretti, E., Shanahan, M.C., & Baker, L. (May, 2006). *Scientists in School: Implications for teaching and learning*. Presentation to the Scientists in School Board of Directors, Toronto, ON, Canada.
- Pedretti, E. (April, 2004). *Multimedia case methods in teacher education*. Teacher Education Symposium, Teaching for Depth. OISE, Toronto, ON, Canada.
- Pedretti, E. (July, 2004). *STSE education: In principle, in practice*. Presentation to teachers, Perth Modern School, Subiaco. Western Australia.
- Pedretti, E. (January, 2002). *STAR (Science and Technology Action Research): The joy of journal writing*. Presentation to teachers, Peel District School Board, Toronto. ON, Canada.
- Pedretti, E. (October, 2000). *STAR (Science and Technology Action Research). Integrating STSE perspectives into science curriculum*. Presentation to teachers, Peel District School Board, Toronto, ON, Canada.
- Pedretti, E. (October, 2000). *Integrating environmental education into the science curriculum*. Presentation to teachers, York Catholic Separate School Board, Toronto, ON, Canada.
- Pedretti, E. (October, 2000). *STAR (Science and Technology Action Research). Integrating STSE perspectives into science curriculum*. Presentation to teachers, Peel District School Board, Toronto, ON, Canada.
- Pedretti, E. (June, 1998). *Science and technology curriculum reform for Grades 7 and 8*. TV Ontario, Member of a “Virtual Classroom” panel, Toronto, ON, Canada.
- Pedretti, E. (1998, June 17). *Where are we going? An up-date on our collaborative project*

“*Science in and beyond schools.*” Presentation to teachers, E.C. Drury High School, Toronto, ON, Canada.

Pedretti, E. (1998, May 8). *Science and culture*. Presentation to teachers, Thornlea Secondary School, Toronto, ON, Canada.

Pedretti, E. (1998, January 6). *Science in and beyond schools*. Presentation to teachers, Halton School Board, Toronto, ON, Canada.

Pedretti, E. (1998, January 12). *Science in and beyond schools: What have we found so far?* Presentation to teachers, E.C. Drury High School, Toronto, ON, Canada.

Pedretti, E. (1998, February 18 & 19, and May 8). *Ontario Science Centre’s “A Question of Truth”: STSE implications*. Several presentations to Metro Toronto teachers, Thornlea Secondary School, Toronto, ON, Canada.

K. Editorial and Reviewing Responsibilities

Guest Editorship

- 2006, *Canadian Journal of Science, Mathematics and Technology Education*, 6(1). Special Issue on Informal Learning in Science.

Editorial Positions

- Initiator and team editor of the *Science, Technology and Society - Network News* (1993-94)
- Member of the Editorial Board, *Canadian Journal of Science, Mathematics and Technology Education* (1999- present)
- Member of the Editorial Board, *Research in Science Education* (2007-)

Professional Memberships

- Canadian Society for Studies in Education (CSSE)
- American Educational Research Association (AERA)
- National Association for Research in Science Teaching (NARST)
- Science Teachers’ Association of Ontario (STAO)
- Association for the Education of Teachers in Science (AETS)
- Self-Study of Teacher Education Practices (S-STEP)
- Informal Learning Environments SIG (AERA)
- International Study Association for Teachers and Teaching (ISATT)
- Ontario Museum Association (OMA)
- Science Coordinators and Consultants Association of Ontario (SCCAO)

Reviewing Academic Work/Manuscripts/Proposals

- Reviewer for *Research in Science Education* (2007-present)
- Reviewer for *Science and Education* (2006-present)
- Reviewer for *Science Education* (2006-present)
- Reviewer for *Teaching and Teacher Education* (2005-present)
- Reviewer for the *International Journal of Science Education* (1996-present)
- Reviewer for *Journal of Research in Science Teaching* (1997-present)
- Reviewer for *Canadian Journal of Science, Mathematics and Technology Education* (1999-present)
- Reviewer for *Curriculum Inquiry* (2000-present)
- Reviewer for AERA proposals (Division K Teaching and Teacher Education) (1996-present)
- Reviewer for NARST proposals (2000-present)
- Response paper to the Ministry of Education and Training, regarding the *Pan Canadian Science Project: The Common Framework of Science Learning Outcomes K -12*.
- Book proposal reviewer for *Dilemmas of science teaching: Perspectives on problems of practice* (Wallace & Loudon, RoutledgeFalmer, 2003).
- Reviewer for grant proposals, Economic & Social Research Council (ESRC), UK (2003)
- Grant Proposal Reviewer for the Public Engagement Grants Programme through the Wellcome Trust in London, England (2003-2004).
- Reviewer for one application grant from the SSHRC (2009)

Consulting/Reviewing

- Consultant for Pearson (grades 9 and 10 science textbooks) (2008-09).
- Consultant and reviewer for *Science education: A summary of research, theories, and practice* (Nelson, 2006, 80 pages)
- Consulting at the University of Baja California, Mexico June 8-11, 2005. Facilitated workshops for faculty: Open Air Science Museums: Possibilities for Learning Science. By invitation.
- Università Degli Studi Roma Tre. Dipartimento di Scienze dell'Educazione. Meeting with faculty regarding science education. (Professor Roberto Cipriani). October 19th, 2004. Rome, Italy.
- Accuracy reviewer for Nelson Publishers for the UC Science 11 and 12 textbooks (2003-2004)
- Textbook consultant with McGraw Hill for Grade 7 and 8 Science and Technology Series. (1998-1999).
- Advisor to University of British Columbia Philippine Doctoral Student visit (May 13-June 22, 1996). Student: Rosanelia T. Yangco, Research title: *Effectiveness of STS approach in developing decision-making skills of high school biology students*.

L. Significant Service

University

- Member of the Outreach Advisory Board for the Institute of Child Study, Environmental Education Initiative (2009-2010)
- Member of University of Toronto Science Outreach Roundtable (2006-2008)
- Member of the University of Toronto School of Graduate Studies Admissions and Program Committee (2003-2006)
- Member of Department of Curriculum, Teaching and Learning Academic Planning Graduate Studies Working Group (2003-04)
- Member of the Museum Studies Program Committee (1996-2007)
- Interviewer of finalists for the University's National Scholarship Program (2003-2004)
- Member of the Hiring Committee for Curriculum Coordinator position UTScarborough (1999-2000)
- Cross-appointed to Museum Studies Department (2002)

OISE

- Member of the TPS Search Committee (2009-2010)
- Member of the OISE Graduate Task Force Committee (2008-09)
- Member of the Executive Committee for OISE Faculty Council (2003-2004, 2004-05, 2005-06)
- Member of the Department of Curriculum, Teaching and Learning Computer Allocations Committee (2005)
- Co-chair of OISE Pre-service Student Awards Committee (2001-2002, 2000-2001, 1999-2000)
- Member of the Search Committee for Chair, Department of Curriculum, Teaching and Learning (2000-2001)
- Member of the Department of Curriculum, Teaching and Learning Graduate Student Awards Committee (1999-2000)
- Member of the OISE Pre-service Awards Committee (1998-99)
- Program Restructuring for the Pre-service science education program (1998-99)
- Staff Liaison for the OISE Dean's Review Committee (May 20th, 1998)

Department

- Member of Teaching and Learning Progress Through the Ranks (PTR) Committee (2003-2004, 2007-2008, 2008-09, 2009-2010)
- Member of CTL Tenure & Promotions Committee (for two cases)
- Vice Chair of CTL Faculty Council (2008-09, 2007-08)
- Member of the Management Board, *Canadian Journal of Science, Mathematics and Technology Education* (2008-09, 2009-2010)
- Member of ESE working group (Environmental & Sustainability Education) (2008-present)
- Member of the review committee for President's Chair, Education and Knowledge Technologies (October, 2007)

- Member of the Research Advisory Committee (2008-09, 2007-08)
- Coordinator of Curriculum Program (2005-2006). Responsible for Graduate Admissions, Comprehensive Examinations, Course Programming and Planning, and Policy work related to the Curriculum Studies and Teacher Development Program.
- Co-Coordinator of Curriculum Studies and Teacher Development Program (2004-2006)
- Chair of Graduate Admissions (2004-05, 2005-2006)
- Co-Chair of Department Course Programming Committee (2004-2006)
- CTL Council (2004-2005, 2005-2006, in my role as Co-Chair of Curriculum Program)
- Member of the Internal Teaching Evaluation Committee for Promotion Review (2008, 2006)
- Tenure & Promotions Committee for one faculty (2004)
- Member of PAC (Program Advisory Committee, 2004-2006)
- Member of RAC (Research Advisory Committee, 2005-2006)
- Served as a member of an Internal Teaching Evaluation Committee for a Tenure Review (2003-04)
- Coordinator for Don Galbraith Pre-service Teacher Award from Science Teachers' Association of Ontario (2003-04, 04-05)
- Member of the CTL Academic Planning Graduate Sub-Committee (2003-04)
- Member of a Tenure Internal Teaching Evaluation Committee (2003-04)
- Co-chair of Graduate Student Awards Committee (which includes: OGS/SSHRC Committee, Scholarship Committee, and Graduate Assistantship Committee) (2001-02)
- Member of the CTL Program Committee (2001-02)
- Member of a Tenure Internal Teaching Evaluation Committee (2001-02, 2004-05, 2006-07)
- Member of the Secondary Science Secondment Hiring Committee (2001-02)
- Member of the Committee for Secondary Science Entrance Awards (2001-02)
- Member of the CTL Task Force (2000-01)
- Member of the Search Committee - Science Education Position, CTL (1999-2000)
- Progress Through the Ranks (PTR) Committee Member (1997-98, 1998-99, 2003-04, 2004-05)
- Workload Committee, CTL (1998-99)
- Member of the Comprehensive Examination Committee (1996-97, 2000-01, 2004-05, 2005-06)
- Program Committee Member, CTL (1996-97)
- Member of the Employment Preparation Conference (EPC). Co-chaired sub-committee responsible for advertising and publicity (1997-98) (Co-chaired host sub-committee 1998-99)

Centre

- Director of the Centre for Studies in Science, Mathematics & Technology Education (January 2006- June 2009)
- Chair of the Interim Management Board for the *Canadian Journal for Science, Mathematics and Technology Education* (2006-2008)
- Co-Director of the Imperial Oil Centre for Studies in Science, Math and Technology Education – Appointed July 1, 2000 (2000-2006)

- Member of the Travel Policy Sub-committee for the Centre (1999-2000, 2000-2001, 2001-2002)
- Member of the Speaker Series Sub-committee

School District-Related Organizations

- Member of the Teacher Education Advisory Committee, Toronto District School Board (2007-present)
- Member of SHAD international group
- STAR – Science and Technology Action Research Project – Peel Board of Education research project
- TDAB - Toronto District School Board Partnership “Teacher in Residence” program
- SCCAO member (Science Coordinators and Consultants Association of Ontario)
- OSCLUB – Ontario Science Centre and Lucent Project. Member of the Steering Committee – OSCLUB is a multi-million dollar project involving the Ontario Science Centre and the Toronto District School Board
- Member of STAO (Science Teachers’ Association of Ontario)

Wider Community

- Member of the US-based National Association for Research in Science Teaching *Journal of Research in Science Teaching* Awards Committee (2006-2009).
- Member of the Teacher Education Advisory Committee, Toronto District School Board (2007-present)
- Member of the Canadian Amgen Awards for Science Teaching Excellence (2007-08, 08-09)
- Member of the Canadian Association for Curriculum Studies Dissertation Award Committee (2006)
- Member of the Bishop Strachan Secondary School Advisory Committee for Science, Technology, Engineering and Mathematics Education (June 2007-2008)
- Member of Science Teachers’ Association of Ontario (STAO) Executive Board (2004-05)
- Honorary President of the Science Teachers Association of Ontario, STAO (2004-05, 2005-06)
- Chair of the CSSE (Canadian Society for Studies in Education) program for the SIGEM group (2001-2002)
- Member of Museum Education Roundtable (MER) (1999-present)
- Member of the Board of Governor’s of St. Augustine’s Seminary (1998- 2002)
- Member of St. Michael’s College of the University of Toronto, Alumnus Group (on- going)
- Member of the Advisory Board for *Eye on Science: A Student Journal in Science & Technology* (2001-2003)
- Member of the Advisory Committee for the Think-Tank of the Shad Institute for Teachers
- External Reviewer of two tenure and promotion cases for the University of BC (2006,2007)
- External Reviewer for a promotion case at Royal Roads University, Victoria, BC (2007)

- External Reviewer for a promotion case at Brock University