

Curriculum Vitae

Full Name: Dr. Ronald MacDonald

Rank/Title: Tenure, Associate Professor
Interim Dean, Faculty of Education, UPEI
Science Methods Instructor

Degrees:

Ph.D. University of South Australia, 2006

Master of Education in Educational Leadership from St. Francis Xavier University (some coursework at OISE), 2000

Bachelor of Education (Secondary Science), St. Francis Xavier University, 1990

Bachelor of Science in Biology, Cape Breton University/St Francis Xavier University, 1988

Employment History:

2013 (Nov.) – present Interim Dean, Faculty of Education, UPEI

2012 – 2013 Associate Professor of Education, UPEI (Sabbatical)

2006 – 2012 Assistant/Associate Professor of Education, UPEI

2005 – 2006 Term Appointment, Faculty of Education, UPEI

1998 – 2005 Teacher, Cape Breton-Victoria Regional School Board

1998 – 2004 Sessional Instructor, Cape Breton University and Memorial University (online)

1997 – 1998 Teacher, Metropolitan Separate School Board, Toronto, Ontario

1991 – 1997 Teacher, Cape Breton Victoria Regional School Board

1990 – 1991 Teacher, Metropolitan Separate School Board, Toronto, Ontario

Scholarly and Professional Academic Activities

Graduate Courses Taught – Career Numbers: 11

University of Prince Edward Island - 4 courses taught

Memorial University of Newfoundland - 7 courses taught

Graduate Supervisions - Career Numbers: 4

University of Prince Edward Island, 1 Master of Education (completed), 1 PhD (in progress)

University of New Brunswick, 1 PhD in Education (completed)

Memorial University of Newfoundland, 1 Master of Education (completed)

External Research Funding

2012 *Student Attitude, Learning Style and Accompanying Pedagogies in the Context of Grade 10 Science Project Based Learning*

My role: Principal Investigator along with Secondary School Science teacher, David Ramsay.

Purpose: Project-based learning (PBL) requires teachers to restructure learning toward students' active, self-direction where students collaboratively build a product. The purpose of

this Grade 10 science research is to address: 1. How does student learning style and academic ability influence student attitude toward science in the context of project-based learning in grade 10 science; and 2. In the context of PBL, what pedagogical differences (if any) are required to bring about student learning in both grade 10 academic and grade 10 advanced science classrooms?

Source: Source: Joint Educational Research Group

Amount: \$4000.00

2012 *A University-College-Government-Industry-Community Partnership to Transform Education for Employment in the Digital Economy*

My role: Co-investigator along with Wiebe S. (P.I.), Campbell, B. Gabriel, M., McAuley, A., Moffatt, L. and Preston, J.

Purpose: To conduct a multidisciplinary knowledge synthesis to create a comprehensive ‘threshold concept map’ (TCM) detailing how traditional, digital, and entrepreneurial literacies connect in Grade 10 English classrooms. Mapping these thresholds will permit understandings regarding the details on how foundational, contextual, and procedural progressions are integrated will optimize learning. The resulting understandings will enable the multiple partners to understand the competencies needed for success in the digital economy. We will design and test a ‘year-long’ and ‘fully-digital’ curriculum innovation (CI) that integrates traditional, digital, and entrepreneurial literacies. The CI focuses instruction on students’ digital communication and content creation. Utilizing data from objective one, creative industry experts in writing & publishing, digital & media arts, film & television, and music & sound recording will work with students to enhance their traditional, digital, and entrepreneurial literacies. We will create a detailed picture of ways students can leverage traditional, digital, and entrepreneurial literacies to create agency and economic opportunity, and ways a digital economy has created a paradigm shift for English teachers, particularly their perceptions/adaptions to teaching literacy as a blend of text, image, movement and sound. We will also evaluate the CI’s potential for optimizing learning via a multiliteracies approach, and its potential for increasing traditional literacy achievement.

Source: Social Sciences and Humanities Research Council of Canada, Partnership Development Grant

Amount: \$197,500

2011 *Connecting and integrating practical wisdom, theory, and experience: case studies in teacher preparation*

My role: Co-investigator along with Goodnough K. (P.I.) and Falkenberg, T. (Co-investigator)

Purpose: In this three-year study, we will examine how teacher preparation programs in Canada structure learning experiences to support teacher candidates in connecting and integrating practical wisdom, theory, and experience. We aim to: *a) document and describe* the types of approaches and strategies that are used to promote practical wisdom-theory-experience connections and integration, *b) determine* faculty, teacher candidate, and other educational stakeholder perceptions of the merit of these strategies and approaches for fostering practical wisdom-theory-experience connections and integration, *c) identify* factors that influence the choice of approaches and strategies adopted to promote this in various contexts, and *d) generate a set of guiding principles* for how to structure and support learning experiences that foster teacher candidate connection and integration of practical wisdom, theory, and experience.

Source: Social Sciences and Humanities Research Council of Canada, Standard Research

Grant (**Note: our proposal was ranked 16th out of 121 applications**)

Amount: \$91,000

- 2010 *Writing the Digital Economy: Shifting Contexts, Practices, and Beliefs.*
My role: Co-investigator along with Wiebe S. (P.I.), Campbell, B. Gabriel, M., and McAuley, A.
Purpose: This research discovered how the use of Web 2.0 tools in secondary and tertiary institutions and education departments, and their instructors, students, and stakeholders, privileges some writing and communication approaches over others; how it produces certain kinds of knowledge; how it shapes the meanings of citizenship and agency; and how it shifts what counts as literacy.
Source: Social Sciences and Humanities Research Council of Canada, Knowledge Synthesis Grants on the Digital Economy.
Amount: \$16,720
- 2010 *The Workload and Worklife of PEI Teachers*
My role: Principal Investigator along with Wiebe, S., Goslin, K., Doiron, R., and MacDonald, C.
Purpose: This study expanding the conceptualization of teacher workload to include the quality of the worklife of PEI teachers. We investigated how the workload and the changing demands inherent in that workload affected PEI teachers' worklife, and influenced teachers' perceptions of the learning experiences of students.
Source: Prince Edward Island Teacher Federation
Amount: \$16,700
- 2006 *Effective Teaching in Senior High Science Classrooms through the Development of a Community of Practice*
My role: Principal Investigator
Purpose: To develop a sustainable, teacher-directed professional development model. The professional development model will involve the creation and maintenance of a community of practice with secondary science teachers. Science probe technology integration, with the ultimate focus on having students regulate their own learning, will be the vehicle through which this community may develop.
Source: Joint Educational Research Group – Prince Edward Island Department of Education
Amount: \$4,500
- 2005 Awarded to conduct Doctor of Philosophy Research regarding factors contributing to efficient and effective Information Communication Technology Classroom Integration
My role: Principal Investigator
Source: Cape Breton Victoria Regional School Board
Amount: \$5,700
- 2004 Professional Development for Information Communication Technology Classroom Integration in Australia
My role: Special Study Leave Recipient
Source: Cape Breton Victoria Regional School Board
Amount: \$5,000

Internal Research Funding

- 2010 My role: Collaboratively write a chapter for a Canadian Teacher Education Research book
Purpose: To travel to Winnipeg to collaboratively work with 40 other teacher education researchers on our respective chapters for a forthcoming book.
Source: Travel Grant Award, UPEI
Amount: \$900
- 2009 *Investigating digital literacies and global awareness in post-secondary net generation learners.*
My Role: Co-investigator, along with Gabriel, M. Doiron, R. Wiebe, S.
Purpose: To examine how digital literacies are current being used in post-secondary institutions and suggest how they may be used better in these locations.
Source: Major Research Grant, UPEI
Amount: \$7,800
- 2009 My role: Present at the National Association for Research in Science Teaching (NARST) Conference (**Invited Presentation**).
Purpose: Travel Grant Award
Source: UPEI
Amount: \$1,300
- 2009 *New Learners, New Learning @ UPEI*
My role: Co-investigator, along with Gabriel, M. (PI), Wiebe S., Campbell, B. and McAuley, A.
Purpose: This study investigated first year university students' digital technology usage in three areas: past outside-of-school use, past inside-of-school use and future university expectations for the use of digital technology.
Source: UPEI Office of the Vice President Academic
Amount: \$7,800
- 2008 *Supporting Adult Learning @ UPEI*
My role: Co-investigator with Gabriel, M. and Doiron, R.
Purpose: This study investigate the Canadian post-secondary landscape regarding how adult learners are currently being served in post-secondary institutions, with the purpose of asserting recommendations for adult learning programs at UPEI.
Source: UPEI Centre for Lifelong Learning.
Amount: \$5,500
- 2008 *Data Logger Integration in Secondary Science: An Investigation of Gender and Student Engagement.*
My Role: Principal Investigator
Purpose: The purpose of this research is to explore how gender may matter when integrated hand-held technologies in science education contexts.
Source: UPEI Major Research Grant.
Amount: \$3,000

- 2008 *Supporting science inquiry and ICT integration through a secondary science teacher community of practice*
 My Role: Principal Investigator
 Purpose: This grant was won to support a paper presentation at the American Educational Research Association Conference in New York
 Source: UPEI
 Amount \$1,200
- 2007 My role: Present Research findings at the Canadian Society for Study of Education
 Purpose: Travel Grant Award
 Source: UPEI
 Amount: \$1,300
- 2006 *Effective Teaching in Senior High Science Classrooms through the Development of a Community of Practice*
 My role: Principal Investigator
 Purpose: To develop a sustainable, teacher-directed professional development model. The professional development model will involve the creation and maintenance of a community of practice with secondary science teachers. Science probe technology integration, with the ultimate focus on having students regulate their own learning, will be the vehicle through which this community may develop.
 Source: University of Prince Edward Island New Scholar Grant
 Amount: \$2,000

Publications:

- 4 Book chapters
- 8 Refereed papers, conference proceedings or abstracts
- 39 Papers in refereed conferences
- 8 Invited contributions and/or technical reports
- 9 rounds of Abstracts and/or papers read
- 17 Other (workshops presented, other types of publications)

Detailed Publications:

Book Chapters

- Hirschhorn, M. & MacDonald, R. J. (in press). Initial Teacher Education Programs in Atlantic Canada. In T. Falkenberg (Ed.), *Handbook of Canadian Teacher Education Research: Initial Teacher Education*. Canadian Association for Teacher Education.
- Ferguson, J. Wiebe, S. & MacDonald, R. J. (2011) Narrative Inquiry in Program Evaluation: The Epistemological Territory of Contested Selves In T. Falkenberg & H. Smits (Eds.) *The Question of Evidence in Research in Teacher Education in the Context of Teacher Education Program Review in Canada*. Winnipeg, MB: Faculty of Education of the University of Manitoba.
- MacDonald, R. J. (2010). Bridging the Theory-Practice Divide: Teaching Science Methods off Campus. In T. Falkenberg, H. Smits (Eds.), *Field Experiences in Canadian Teacher Education* (pp. 261-274). Winnipeg, MB: Faculty of Education of the University of Manitoba.

MacDonald, R. J. (2010). Building collaborative in-service/pre-service teacher communities of practice to discover how hand-held data logging technology affects senior high students' learning. In J. Yamamoto, R. Lombard, J. Kush & J. Hertzog (Eds.), *Technology Implementation and Teacher Education: Reflective Models*, (pp. 228-244). Pennsylvania: IGI Global. 228-244.

Refereed Papers, Conference Proceedings and Abstracts

Preston, J. P., Wiebe, S., Gabriel, M. A., MacDonald, R. J., McAuley, A., Campbell, B., & Moffatt, L. (2013, July). Technology in Prince Edward Island high schools: Voices of educational leaders. Published abstract in the *British Educational Leadership, Management & Administration Society (BELMAS) Conference Abstracts Book* (p. 25). Edinburgh, Scotland.

Gabriel, M., Campbell, B., Wiebe, S., MacDonald, R. J., & McAuley, S. (2012). The Role of Digital Technologies in Learning: Expectations of First Year University Students. *Canadian Journal of Learning and Technology*, 38 (1), 1-18.

Gabriel, M.A., Wiebe, S., & MacDonald, R. J. (2009, April). Net generation expectations for technology-mediated learning at the university level. In *Research, reflections and innovations in integrating ICT in education*. Proceedings of the V International Conference on Multimedia and Information & Communication Technologies in Education, Lisbon, Portugal.

MacDonald, R. J. (2009). Supporting learner-centered ICT integration: The influence of collaborative and needs-based professional development. *Journal of Technology and Teacher Education*. 17(3), 315-348.

MacDonald, R. J. (2008). Professional development for information communication technology integration: Identifying and supporting a community of practice through design-based research. *Journal of Research on Technology in Education*. 40(3), 429-445.

MacDonald, R. J., Larter, Angela. (2007). A professional learning community of senior high science teachers: Data logging and learner-centeredness. *Proceedings of the E-Learn World Conference on E-Learning in Corporate, Government, Healthcare and Higher Education, 2007*.

MacDonald, R. J. (2005, October). Information communication technologies in the science classroom: A quantitative study. *Atlantic Science Teachers Journal*, 2005.

MacDonald, R. J., (2004). What counts as information communication technology integration? A new theoretical framework for levels of technology integration. *Proceedings of Australian Association for Research in Education Conference, Melbourne, Australia, 2004*.

Papers in refereed conferences

Roy, S., MacDonald, R. & Ramsay, D. (2014, May). *Promoting Science Education through a Project-Based Learning Environment*. Paper presented at the annual meeting of the Canadian Society for the Study of Education, Brock University, St. Catharine's, Ontario.

- Roy, S., Wiebe, S., Gabriel, M., MacDonald, R., McAuley, S. & Campbell, B. *Fostering Digital and Multi-Literacies Through a Project-Based Learning Environment*. Paper presented at the annual meeting of the Canadian Society for the Study of Education, Brock University. St. Catharine's, Ontario.
- Wiebe, S., MacDonald, R., & Moffatt, L. (2014, May). *A threshold concept heuristic for exploring student agency in literacy practices*. Paper presented at the annual meeting of the Canadian Society for the Study of Education, Brock University. St. Catharine's, Ontario.
- Gabriel, M., Wiebe, S., MacDonald, R., McAuley, S. & Campbell, B. (2014, May). *Adopting digital literacies to support project-based learning in upper level classrooms*. Paper presented at the annual meeting of the *Canadian Network for Innovation in Education*, Thompson Rivers University. Kamloops, British Columbia.
- Wiebe, S., Gabriel, M. A., MacDonald, R. J., McAuley, A., Campbell, B., Moffatt, L. (2014, May). *Adopting digital literacies to support project-based learning in upper level classrooms*. Paper presented at the Canadian Network for Innovation in Education Annual Conference, Kamloops, BC, May 14-16, 2014.
- Preston, J. P., Wiebe, S., Gabriel, M. A., MacDonald, R. J., McAuley, A., Campbell, B., & Moffatt, L. (2014, April). *Benefits and challenges of technology in high schools: The voice of educational leaders in Prince Edward Island*. Paper presented (online retrieval) at the American Educational Research Association (AERA) Annual Meeting, Philadelphia, PA.
- MacDonald, R. J., Falkenberg, T. Goodnough, K. (2013, July). *Connecting and integrating theory and practice in teacher education: Findings from a Canada-wide study*. Paper presented at the International Study Association on Teachers and Teaching. Ghent, Belgium.
- MacDonald, R.J, Ramsay, D. & Roy, S. (2013, June). *Accommodating for Learning Style and Academic Ability Differences in the Context of Project-based Learning in Grade 10 Science*. Paper presented at the Canadian Society for the Study of Education, University of Victoria. Victoria, British Columbia.
- Goodnough, K., Falkenberg, T, & MacDonald, R.J. (2013, June). *Innovations in Teacher Preparation in Atlantic Canada: Ways of Addressing the Theory-Practice Dichotomies*. Paper presented at the Canadian Society for the Study of Education, University of Victoria. Victoria, British Columbia.
- Wiebe, S., Gabriel, M. A., MacDonald, R. J., McAuley, A., Moffatt, L., & Preston, J. P (2013, June). *Utilizing a threshold space to teach writing*. Paper presented at the annual meeting of the *Canadian Society for the Study of Education*, University of Victoria. Victoria, British Columbia.
- MacDonald, R. J., Falkenberg, T. Goodnough, K. (2012, May). *Innovations in Teacher Preparation in Atlantic Canada: Ways of Addressing the Theory-Practice Dichotomies*. Paper presented at the Canadian Society for Study of Education, Waterloo, Ontario.
- Gabriel, M. A., Wiebe, S., MacDonald, R. J., McAuley, A., Moffatt, L., & Preston, J. P. (2013, May). *Towards innovation: Responses to educational challenges posed by the digital economy*. Paper presented at the annual meeting of the *Canadian Network for Innovation in Education*, Carlton University. Ottawa, ON.

- Benson, F. J., Betts, P., Block, L., Edmunds, A. L, Falkenberg, T. Goodnough, K., Hatt, B., James, T., MacDonald, R. J., Maynes, N., Memon, N., & Riches, C. (2012). *Innovation in Initial Teacher Preparation: Enabling Practices and Approaches*. Symposium presented at the Canadian Society for Study of Education, Waterloo, Ontario.
- Ferguson, J., Wiebe, S. & MacDonald, R. J. (2011, May). *Evaluation of Teacher Education Programs: A Stronger Role for Narrative Inquiry*. Paper presented at the Canadian Society for Study of Education, Fredericton, New Brunswick.
- Wiebe, S., Gabriel, M. MacDonald, R. J., Campbell, B., McAuley, S. Roy, S. & Deyenberg, J. (2011, May). *Writing the Digital Economy: Shifting Contexts, Practices, and Beliefs*. Paper presented at the Canadian Society for Study of Education, Fredericton, New Brunswick.
- MacDonald, R. J., Wiebe, S., Goslin, K., Doiron, R. & MacDonald, C. (May, 2011). *The Workload and Worklife of Teachers Today: Implications for Teacher Education in the Context of 21st Century Learning*. Paper presented at the Canadian Society for Study of Education, Fredericton, New Brunswick.
- MacDonald, R. J. (July, 2010). *Competences in Education for Sustainable Development*. **Invited to present a paper and lead a discussion** at the Atlantic Canada Association of Science Educators. Charlottetown, Prince Edward Island.
- Wiebe, S., Gabriel, M., Campbell, B., McAuley, S. & MacDonald, R. (September, 2010). *Kids Jist Donut No How 2 Right these Days AWK!!* September, 2010. Paper presented at the Atlantic Association of Universities Showcase. Charlottetown, Prince Edward Island.
- MacDonald, R. J. (2010, May). *Bridging the theory-practice divide: Field-based university teaching in education*. Paper presented at the Canadian Society for Study of Education, Montreal, Quebec.
- MacDonald, R. J. (2010, May). *Preparing Teachers for Education for Sustainable Development*. **Invited Panel** for CATE and ACDE at the Canadian Society for Study of Education, Montreal, Quebec.
- MacDonald, R.J (2009, October). *Teacher education and the school: Bridging the theory-practice divide*. Paper presented at Edge: Inspiration and Innovation in Teaching and Teacher Education, St. John's, Newfoundland and Labrador.
- MacDonald, R.J (2009, June). *Data Logger-supported Student Inquiry in Physics*. Paper presented at Harnessing Images, Text, and Sound for Education in the Context of Culture, Multimedia, Technology and Cognition Conference in Charlottetown, PE.
- MacDonald, R. J. (2009, December). *Data logging in senior high science: Are we disadvantaging females?* **Invited paper** presented at the National Science Teacher Association Conference, Phoenix, AZ.
- MacDonald, R. J. (2009, May). *The Influence of Technology-Supported Student Inquiry on Male and Female Attitudes toward Science Self-Efficacy*. Paper presented at UPEI Research Forum, Charlottetown, PE.
- MacDonald, R. J. (2009, May). *Teacher Support for Data Logging Technologies: Intersecting*

- Communities of Practice*. Paper presented at the Canadian Society for Study of Education, Ottawa, Ontario.
- MacDonald, R. J. (2009, May). *Data Logger-supported Student Inquiry in Physics: Are we Disadvantaging Girls?* Paper presented at the Canadian Society for Study of Education, Ottawa, Ontario.
- Gabriel, M., Doiron, R. MacDonald, R. J. & Wiebe, S. (2009, April). *Net generation expectations for technology-mediated learning at the university level*. Paper presented at the V International Conference on Multimedia and ICT in Education, Lisbon, Portugal.
- MacDonald, R. J. & Larter, A. (2009, April). *Data logging in senior high science: Are we disadvantaging females?* Paper presented at the National Association for Research in Science Teaching, Garden Grove, CA.
- MacDonald, R. J. & Larter, A. (2009, April). *Supporting senior high science data logging integration: The identification and support from outsider communities*. Paper presented at the National Association for Research in Science Teaching, Garden Grove, CA.
- MacDonald, R. J. & Larter, A. (2008, April). *Technology use in senior high science: Effects on student attitudes toward science and technology*. Paper presented at the University of Prince Edward Island Research Forum, Charlottetown, Prince Edward Island, Canada.
- MacDonald, R. J. (2008, March). *Supporting Science Inquiry and ICT Integration through a Secondary Science Teacher Community of Practice*. Paper presented at the American Educational Research Association, New York. (Please note: this paper was short listed for a Technology as an Agent of Change in Teaching and Learning SIG Paper Award)
- MacDonald, R. J., Larter, Angela. (2007, October). *A professional learning community of senior high science teachers: Data logging and learner-centeredness*. Paper presented at E-Learn World Conference on E-Learning in Corporate, Government, Healthcare and Higher Education, Quebec City, Canada.
- MacDonald, R. J., Larter, Angela. (April, 2007). *The sub-cultural identity of secondary science teachers: Implications for ICT integration and teacher professional development*. Paper presented at the Atlantic Educators Conference, Charlottetown, Prince Edward Island.
- MacDonald, R. J. Larter, Angela. (2007, October). *The sub-cultural identity of secondary science teachers: Implications for ICT integration and teacher professional development*. Paper presented at the Atlantic Educators Conference, Charlottetown, Prince Edward Island.
- MacDonald, R. J. (2007, May). *Information communications technology in secondary science and math: Factors in successful integration*. Paper presented at the Canadian Society for Study of Education, Saskatoon, Saskatchewan.
- MacDonald, R. J. & Larter, A. (2007, April). *A senior high science professional learning community: First steps*. Paper presented at UPEI Research Forum, Charlottetown, PE.
- MacDonald, R. J. (2006). *Technology-facilitated pedagogies in secondary science classrooms*. Paper

presented at UPEI Research Forum, Charlottetown, PE.

MacDonald, R. J., (2005). *Is it about technology or pedagogy? A comparative look at ICTs in science and math*. Paper presented at the Atlantic Educators Conference, Antigonish, Nova Scotia.

MacDonald, R. J., (2004). *Information communication technology integration: An international perspective*. Paper presented at University of South Australia, Adelaide, Australia.

Publications under Review

Falkenberg, T., Goodnough, K., & MacDonald, R. J. (under review). Views and practices of integrating theory and practice in teacher education programs in Atlantic Canada.

Non-Refereed Contributions

MacDonald, R. (2014, May). *Project-Based Learning in Science: Inspiring Collaboration and Intrinsic Motivation*. **Invited presentation** at the Saint Mary's University, Faculty of Science (Chemistry Department), Halifax, NS.

Falkenberg, T., & MacDonald, R. J. (2013, February). *Theory and practice in Canadian initial teacher education: Thoughts, observations, and initial findings*. **Invited presentation** at the Faculty of Education, University of Saskatchewan, Saskatoon, SK.

Wiebe, S., Gabriel, M. A., Campbell, B., MacDonald, R.J., McAuley, A. (2010, December). *Writing the digital economy: A summary of research and perspectives*. Final report to Social Sciences and Humanities Research Council.

MacDonald, R. J. Wiebe, S., Goslin, K., Doiron, R., & MacDonald, C. (October, 2010). *The workload and worklife of Prince Edward Island teachers*. Report presented at the Prince Edward Island Teacher Federation Conference. Charlottetown, PEI.

MacDonald, R. J. & Hayes, J. (2008). *Data logging in senior high physics: A carousel of student inquiry opportunities*. Presentation at the Prince Edward Department of Education Teacher Development Conference. Charlottetown, Prince Edward Island, Canada.

MacDonald, R. J. (2008). *Integrating Wikis and Blogs: Pedagogy and Practicality*. Presentation at Holland College, Summerside, Prince Edward Island, Canada.

MacDonald, R. J. & Larter, A. (2008). *Engaging adult learners through hands-on technology integration: Learning styles and learning achievement*. Conference Presentation at Advancing Adult Education in Prince Edward Island: A Meeting of the Minds, Holland College, Charlottetown, Prince Edward Island, Canada.

MacDonald, R. J. (2007). *Data logging in senior high physics*. Presentation to the Prince Edward Island Physics Curriculum Group. Charlottetown, Prince Edward Island, Canada.

MacDonald, R.J & Larter, Angela (2007). *An intervention to meet students' needs in one intermediate school in the Eastern School District*. Research Report to Eastern School District, Prince Edward Island.

MacDonald, R. J. (2006) *Data logging integration in junior and senior high schools*. Workshop provided to the Prince Edward Island Teachers Federation. Charlottetown, Prince Edward Island, Canada.

MacDonald, R. J., (2004). *ICTs in the science classroom: A current snapshot*. Presentation at the Atlantic Science Teacher Conference, Halifax, Nova Scotia.

MacDonald, R. J., (2004). *Reality-based ICT use in the high school math classroom*. Presentation at the Cape Breton Victoria Regional School Board High School Mathematics Conference, New Waterford, Nova Scotia.

MacDonald, R. J. & Gabriel, Martha. (2007). *Creating and maintaining your E-portfolio*. Workshop presentation at the University of Prince Edward Island, Charlottetown.

Knowledge Translation/Mobility

MacDonald, R. J. & Ramsay, D. (June 14, 2013). Project-based Learning in the Science Classroom. *Compass (CBC TV Evening News)*.

MacDonald, R. J. Wiebe, S., Goslin, K., Doiron, R., & MacDonald, C. (2011). Studies show teachers buried in admin work, have less time for students. *The National Post*, June 1.
<http://news.nationalpost.com/2011/06/01/studies-show-teachers-buried-in-admin-work-have-less-time-for-students/>

MacDonald, R. J. Wiebe, S., Goslin, K., Doiron, R., & MacDonald, C. (October 14, 2010). The workload and worklife of Prince Edward Island teachers. *Compass (CBC TV Evening News)*.

MacDonald, R. J. Wiebe, S., Goslin, K., Doiron, R., & MacDonald, C. (October 15, 2010). P.E.I. teachers spending less time teaching, study shows. *The Chronicle Herald*.

Dissertation

MacDonald, R. J. (2006). *In what ways do teacher attitude, professional development and leadership affect ICT integration?* Unpublished doctoral dissertation, University of South Australia.

Abstracts or Papers Read

2008, 2009, 2010, 2011 Paper Reviewer for Canadian Society for Study of Education Conference: Canadian Association for Teacher Education

2007, 2008 Paper Reviewer for Canadian Society for Study of Education Conference: Science Education Researchers Group

2008 Paper Reviewer for Canadian Society for Study of Education Conference: Technology and Teacher Education

2007 Reviewer for University of Prince Edward Island SSHRC Canada Graduate Scholarships Program (CGSP) Master's adjudication committee

2007 Paper Reviewer for the Atlantic Educator's Conference

RECORD OF TEACHING

University of Prince Edward Island

School Year 2013-2014

ED446SI: Senior Years Science Methods (I)

School Year 2012-2013

Sabbatical: Did not teach University, but guest taught Grade 10 Science

School Year 2011-2012

Bachelor of Education:

ED446SI: Senior Years Science Methods (I)

ED447SII: Senior Years Science Methods (II)

ED445E: Early Years Science Methods

School Year 2010-2011

Bachelor of Education:

ED446SI: Senior Years Science Methods (I)

ED447SII: Senior Years Science Methods (II)

ED445E: Early Years Science Methods

School Year 2009-2010

Bachelor of Education:

ED444M: Middle Years Science Methods

ED446SI: Senior Years Science Methods (I)

ED446SII: Senior Years Science Methods (II)

ED445E: Early Years Science Methods

Graduate Courses:

ED616: Action Research in Education

School Year 2008-2009

Bachelor of Education:

ED444M: Middle Years Science Methods

ED446SI: Senior Years Science Methods (I)

ED446SII: Senior Years Science Methods (II)

ED474: Information Technology Integration

Graduate Courses:

ED616: Action Research in Education

School Year 2007-2008

Bachelor of Education:

ED446S: Senior Years Science Methods (I)

ED447S: Senior Years Science Methods (II)

ED444M: Middle Years Science Methods
ED495: Introduction to Teaching and School Experience (Practicum supervision)
ED496: General Teaching Methods and School Experience (Practicum supervision)

School Year 2006-2007

Teaching the following Bachelor of Education courses:

ED444M: Middle Years Science Methods
ED446SI: Senior Years Science Methods (I)
ED446SII: Senior Years Science Methods (II)
ED497: Issues in Teaching and School Experience

School Year 2005-2006

Taught the following Bachelor of Education courses:

ED445E: Early Years Science Methods
ED444M: Middle Years Science Methods
ED446SI: Senior Years Science Methods (I)
ED446SII: Senior Years Science Methods (II)
ED474: Information Technology Integration

Graduate Courses:

612: Quantitative Research Methods
626: Technology: Leadership in Learning

Cape Breton University/Memorial University of Newfoundland

School Year 2001- 2004

Graduate Courses:

Course Designer and Instructor for Cape Breton University/Memorial University of Newfoundland Master of Education (Information Technology) distance education courses:

ED533: Integration of Instructional Design and Information Technology
ED531: Assessment of Software and Information Technology Applications for Education

Note: each of these two courses were taught once in each year for three years (**total= 6**)

School Year 1998-2001

Graduate Courses:

Course Designer and Instructor for Cape Breton University distance education course - Software Application and Curriculum Integration

Note: this course was taught three times over this period

School Year 1998-1999

Computer In-service Instructor for Extension and Community Affairs (Cape Breton University)

Cape Breton Victoria Regional School Board

School Years 1991-2005

Science: Science 10, Chemistry 11, Chemistry 12, Physics 12, Oceans 11, Agriculture 11,
Biology 10, Biology 12

Math: Grades 7, 8, 9, 10, 11 and 12

Computer Related Studies: Grade 7, 8, 9 and 12

History 10, Co-op Education, Political Science 11, Health: Grade 7, 9

School Year 2001- 2004

Computer System Co-Administrator for *WinSchool* and other management software applications

School Year 1996-97

Teacher Professional Development Facilitator - Information Technology

Metropolitan Separate School Board, Toronto, Ontario

School Year 1997-98

Taught at Jean Vanier Catholic Secondary School, Scarborough - Grade 12
Physics, Grade 9 Science

School Year 1990-91

Taught at St. Basil-the-Great College School, Toronto - Grade 11 and 13 Biology and Chemistry.

SERVING THE EDUCATIONAL COMMUNITY

Academic Service

- Member of the 38-member, Canada-wide Research Working Group investigating Teacher Education in Canada, 2011-2013
- Member of the Atlantic Educator Conference organizing committee, 2009
- Peer Reviewer for the *Journal of Research in Science Teaching*, 2008 – present
- Book reviewer for the Canadian Society for Study of Education - *Policy Unplugged: Policy Unplugged: Dis/Connections between Technology Policy and Practices in Canadian Schools*, 2008
- Peer Reviewer for *Canadian Society for Study of Education Conference: Technology and Teacher Education*, 2008 - present
- Peer Reviewer for *Canadian Society for Study of Education Conference: Science Education Researchers Group*, 2007 - present
- Peer Reviewer for *Canadian Society for Study of Education Conference: Canadian Association for Teacher Education*, 2007 - present
- Discussant for the Science Education Research Group at the CSSE (Canadian Society for the Study, 2007
- Member of the University of Prince Edward Island SSHRC Canada Graduate Scholarships Program (CGSP) Adjudication Committee, 2007
- Peer Reviewer for the *Atlantic Educator's Conference*, 2007

University Service

- Undergraduate Coordinator, 2010-2012 – responsible for overseeing of our Faculty of Education Undergraduate programs (with support from the Dean and other coordinators). Programs include: Bachelor of Education, Bachelor of Education (français langue seconde), Bachelor of Education (Human Resource Development), Certificate in Adult Education, Bachelor of Education (Kindergarten)
- Chair of the B.Ed. Committee, 2010 - 2012
- Member of UPEI Graduate Faculty in the Faculty of Education
- Member of UPEI's Research Ethics Board, 2008 - 2010

- Chair of UPEI Faculty of Education Departmental Ethics Committee, 2006 - 2010
- Member of UPEI's PEI Industry Research Chair Application Review Committee, 2009
- UPEI SSHRC Canada Graduate Scholarships Program Adjudication Committee, 2007
- Member of Robertson Library/Information Technology in Education Committee, 2005 - 2008
- UPEI Provincial Education Job Fair Co-coordinator, 2005 - 2006
- Member of UPEI Faculty of Education Hiring Committee, 2006, 2009, 2011
- Chair of UPEI Faculty of Education Hiring Committee, 2012
- Member of the UPEI Faculty of Education Technology Committee, 2005 - 2012
- Faculty of Education's representative on the UPEI Kinesiology Degree Development Committee
- Acting Dean (various time throughout the past 2 academic years)
- Chair of the Bachelor of Education Awards Committee, 2009 - 2012

Provincial Education Service

- Member of Joint Committee on Teacher Education, which is made up of PEI Department of Education personnel and UPEI Faculty, 2010 - 2012
- Member of the PEI Department of Education Professional Development Committee, 2005 - 2012
- Member of Prince Edward Island Sustainability Network Steering Committee, 2010 - 2012
- Member of UPEI Environmental Studies Steering Group, 2010 - 2013
- Prince Edward Island Educational Leadership Committee, 2007- 2012
- Member of PEI Provincial Grade 11 Physics Curriculum Committee, 2007 - 2008
- PEI Provincial Grade 12 Physics Curriculum Committee Member, 2008 - 2012
- Member of the Provincial Pre-IB (International Baccalaureate) Science Curriculum Development Committee, 2008 - 2010

National Service

- Executive Member of the Canadian Association of Teacher Educators (CATE), 2010 - 2012
- Organized the CATE Invited Panel on Teacher Education Practice, 2012

Other Service

- Workshop participant Centre for Higher Education Research and Development, Heads and Chairs: Challenges in Academic Leadership, Toronto, Ontario, November 2013.
- Participated and was certified (Level 1) in the International Baccalaureate Training for Physics Teaching
- I lead, along with another faculty member, a discussion group at Holland College to inform instructors of the possibilities, pitfalls and opportunities regarding future Master of Education and Doctoral studies.
- Member of a UPEI research group investigating the possibilities of addressing adult learners' needs in the University Context.
- Member of the STAS (Science and Technology and Society) committee, which is a web-based support for K-12 students doing research in science, 2006 - 2010.
- Prince Edward Island Science Fair Steering Committee Member
- Science fair judge recruiter for the Eastern District Regional Science, 2006 - present
- Science fair organizer for judge recruiter for the Prince Edward Island Provincial Science Fair, 2006 - 2012
- Judge for the Prince Edward Island Provincial Science Fair, 2006 - present
- Member of the Sanfoni-Aventis Biotech Challenge Committee, 2006 - 2007
- Sanfoni-Aventis Biotech Challenge Judge, 2006 - 2007

CERTIFICATION/MEMBERSHIPS

- Member of the Canadian Association of Teacher Educators (2009 - present)
- Member of UPEI's Centre for Education Research (2009 - 2012)
- Member of Canadian Society for Studies in Education (2006 – present)
- Technology as an Agent of Change for Teaching and Learning (AERA Special Interest Group), 2007 – 2010
- Science Education Research Group (CSSE Special Interest Group), 2006 - 2010, 2012
- Society for Information Technology and Teacher Education, 2006 - 2010
- Association for the Advancement of Computer in Education, 2007 - 2009
- American Educational Research Association, 2006 - 2010
- International Society for Technology in Education, 2006 - 2010
- Nova Scotia Teachers' Union 1990 - 2007
- Ontario College of Teachers Certification (Secondary Science, Biology, Computer)
- Atlantic Science Teachers Association, 1994 - 2004