25 July 2025

Jason Locklin
Curriculum Vitae
Citizenship: Canadian

CONTACT
INFORMATION   Data Science Lead, Research and Analytics
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PROFILE
SUMMARY

Leader in Education Research, Analytics, and Organizational Transformation

Recognized in the Ontario educational research community as a leader in the field, educator of educators, dedicated to advancing student-centred educational research and practice. Expertise in transforming large-scale quantitative data into actionable insights and mobilizing knowledge to bridge theory and practice in meaningful ways. Passionately committed to dismantling systemic barriers by ensuring identity and social location no longer predict educational outcomes. Translates complex research into teachable, actionable strategies and fosters reproducible, transparent science. Proven ability to design innovative research, apply advanced quantitative methods, and foster data literacy through professional development. Committed to leading the translation of complex theory and research into practical, equitable policies and strategies that empower educators and centre student voice.

Professional Vision:

To drive equitable transformation in education, where student achievement is independent of identity or social location, while modeling inquiry, growth, and social responsibility; leading equitable change by dismantling systemic barriers and centering student lived experience, needs, and success.

EDUCATION

University of Waterloo:

Ph.D., Psychology, Behavioural and Cognitive Neuroscience   2015

Dissertation: *Perceptual and Memory Deficits in Unilateral Neglect*

Area of Study: Stroke, Perception, and Memory.

M.A., Psychology, Behavioural and Cognitive Neuroscience   2011

Thesis: *Development of a Measure of Visuomotor Control for Assessing the Long-term Effects of Concussion*

Area of Study: Fine Motor Control, Concussion Research.

B.Sc. (Honours), Psychology, Biology (minor)   2007

Course load including strong mix of Psychology with Natural and Life Sciences.

Professional Development and Training

Introduction to R for Education Research: Full-Day Workshop   2024

Delivered comprehensive training to TCDSB research team, progressing from R fundamentals to creating publication-quality visualizations.

Developed and provided persistent online documentation supporting continued learning and implementation.

Facilitated hands-on experimental approach building confidence with R, RStudio, and tidyverse packages.

AERO: Intro to R for Education Data Analysis and Visualization Virtual Workshop 2024

Led professional development session introducing R for data analysis and reporting practices for education researchers in Ontario school boards.

Demonstrated innovative approaches to research analysis and visualization.

Generated follow-up requests for additional in-person workshops from participating boards.

Safe, Caring and Inclusive School Survey: Annual Professional Development Days 2019-2024

Facilitate annual professional development for WRDSB administrators on interpreting and implementing school climate survey data.

Guide administrators through analysis of Middle Years Development Instrument results and other climate measures.

Guide development of data-informed school improvement planning using climate survey indicators.

Invited Lectures

University of Waterloo   2014

Psych 261 Physiological Psychology: Topics included Auditory Sensation and Somatosensation.

Wilfrid Laurier University   2008

EU 403: Teaching Equity and Diversity

Student Supervision and Mentorship

Research Team Supervision, Toronto Catholic District School Board   2025-Present

Supervise a team of professional researchers in quantitative research methods.

Provide mentorship and professional development in reproducible analytics.

Co-op Student Supervision, Centre for Family Medicine   2017-2018

Trained and supervised co-op research assistants.

Provided mentorship while building their research capacity.

Honours Thesis Supervision, University of Waterloo   2012-2015

Supervised multiple undergraduate Honours thesis students during doctoral studies.

Guided students through the complete research process from conception to final presentation.

Teaching Assistantships

Department of Psychology, University of Waterloo

PSYCH 261: **Physiological Psychology**: T.A.   2009, 2011 & 2014

Provided weekly office hour instruction to students.

Assisted with course material preparation and grading.

PSYCH 307: **Human Neuropsychology**: T.A.   2012

Provided weekly office hour instruction to students.

Offered guidance on complex neuropsychological concepts.

PSYCH 390: **Res. in Human Cognitive Neuroscience**: T.A.   2010

Provided assistance and feedback to students developing research papers.

Guided students through research design and analysis processes.

PSYCH 207: **Cognitive Processes**: T.A.   2008

Provided extra instruction during office hours, graded term papers, and gave feedback to students.

Facilitated discussions on cognitive psychology topics.

PSYCH 292: **Basic Data Analysis**: T.A. & Lab Instructor   2008

Instructed weekly tutorials for 30 students, consisting of review lectures and practical instruction on solving data analytic problems.

Developed weekly tutorial lesson plans in cooperation with other teaching assistants.

PSYCH 391 **Advanced Data Analysis**: T.A. & Lab Instructor   2007

Developed and led regular tutorials instructing students to utilize SPSS in analyzing experimental and observational data.

Provided practical instruction on solving complex statistical problems.

PROFESSIONAL
EXPERIENCE

Data Science Lead, Toronto Catholic District School Board   2025-Present

Lead the transformation of data and theory into educational practice across the TCDSB by converting large-scale quantitative data into accessible strategies for educational leaders, developing innovative data analysis approaches that support student success, and building organizational capacity for data literacy through professional development and collaborative partnerships.

Manage and supervise professional researchers, providing leadership in quantitative research methods while developing and delivering professional learning that builds staff capacity in reproducible analytics using R and other open-source tools.

Design and maintain complex data pipelines, PowerBI dashboards, and sophisticated statistical models using R and SQL that transform educational data from multiple platforms into actionable insights, while implementing data governance strategies to ensure quality and effective knowledge mobilization across nearly 200 schools serving 84,000 students.

Research Officer, Waterloo Region District School Board   2018-2025

Spearhead the development and implementation of system-level measurements aligned with WRDSB's Strategic Plan and Board Improvement and Equity Plan, focusing on enhancing educational outcomes through evidence-based practices that bridge theory and practice in educational settings.

Deliver a major, district-wide longitudinal student well-being research project involving tens of thousands of students completing standardized measurements, while conducting program evaluation research on educational initiatives such as the "Reading Resource Teacher" position, literacy screening program, and equitable staffing rubrics, identifying both positive impacts and implementation challenges that led to evidence-based resourcing model improvements.

Lead professional development workshops for WRDSB school administrators, translating complex research and theory into practical school leadership strategies, and delivering the annual Safe, Caring and Inclusive School Survey, providing professional development to guide the integration of student well-being into School Learning and Improvement Plans.

Demonstrate leadership among peers by cultivating a culture of respect, innovation, and accountability, motivating team members and fostering an inclusive work environment that recognizes the strengths that come from diversity while serving as a trusted advisor to both senior leadership and school administrators.

Lead complex research projects from conception to completion, including developing an innovative statistical model to identify at-risk students that contributed to a 5% increase in graduation rates, and maintaining a student demographic data tool leveraging Canadian Census data to guide equitable resource allocation and automating reporting for schools using R.

Research Associate, Centre for Family Medicine   2016-2018

Contributed to a multi-disciplinary team while fostering cross-organizational relationships, initiating a collaboration between a family health organization and community pharmacy to deliver innovative primary-care programs for persons with dementia and frailty.

Secured a catalyst grant ($100,000) with the Canadian Frailty Network to develop a research program for early identification of frailty in seniors, demonstrating grant writing success and expertise in preventative methodologies.

Trained and supervised co-op students and volunteer research assistants, providing mentorship and building research capacity.

Developed advanced statistical modelling to improve frailty and cognitive impairment detection in primary-care populations.

Applied qualitative research methods and field testing with medical professionals to evaluate program effectiveness, refining implementation strategies while demonstrating expertise in program evaluation and implementation science.

Statistical Consultant, Centre for Family Medicine   2016

Analyzed identity-based data from clinical and administrative databases, outcome data, surveys, and clinical measures to evaluate new and existing primary care procedures.

Created statistical reports with R, including data cleaning, validation, and visualization.

Graduate and Undergraduate Research Employment, University of Waterloo:

Research Assistant; Perception, action and brain injury. 2008-2015

Develop a motor-accuracy task for the measurement of concussion symptoms.

Test neurological patients using a variety of neuropsychological tests and procedures, including Prism Adaptation.

Develop and test a gaze-contingent task using real-time eye-tracking equipment.

Supervise undergraduate research assistants

Research Assistant; Decision making. 2007

Develop web-based decision making experiments and collect data.

Research Assistant; Psychophysics. 2005-2006

Develop a computer-based task for a graduate student's project.

Laboratory Coordinator; Attention and clinical depression. 2005-2006

Coordinate several covert-orienting experiments.

Supervise volunteer research assistants

Research Assistant; Attention and clinical depression. (volunteer) 2004-2005

Conduct experimental psychology research experiments.

SERVICE
ACTIVITIES
Professional Associations

Executive Member at Large, AERO-AOCE 2023-Present

Serving as an executive member at large for Association of Educational Researchers of Ontario (AERO-AOCE), helping to drive the promotion and improvement of research, evaluation, planning, and development within Ontario's school systems.

Contributing to initiatives that underscore the importance and impact of educational research in enhancing board of education strategies and outcomes.

Conferences

Host/Facilitator, AERO-AOCE Fall Conference 2023

Topic: Student Census, focusing on the analysis, reporting and community engagement phases of the project.

Contributed to organization and conference delivery and introduction of speakers.

Host/Facilitator, AERO-AOCE Spring Special Interest Group 2023

Topic: Climate Surveys: Student, Staff & Parent.

MC role and contributed to organization and program delivery.

Committees

WRDSB Accessibility Plan Implementation Committee 2020-Present

Contributing to board-wide planning and implementation of AODA requirements.

Providing research and data analysis support for accessibility planning and monitoring.

Science Advisor, Advisory Committee: Bad Science Watch. 2012

Provided support and science advice for the non-profit public interest advocacy group.

Contributed to white paper for science-based journalism.

Student Affairs Leadership

President, U.W. Undergraduate Psychology Student Society 2005-2007

Oversee student affairs for undergraduate psychology students.

Organized networking events, social events, and student support initiatives.

Manage scholarship development, financial operations, and wellbeing supports.

Coordinated an administration of 8, supporting over 600 members.

Affiliations

Ontario Data User Group	2018-Present
Association of Educational Researchers of Ontario	2018-Present
Danckert Attention and Action Group	2008-2015
Bad Science Watch (Advisory Council)	2012
Vision Sciences Society	2006

Professional Development

Leading for Change: Understanding Colonialism, Human Rights and Equity; WRDSB 2024

Participated in this 6-week course that deepened understanding of Indigenous education perspectives and the harm caused by colonial structures deeply ingrained in the education system through interactive, experiential learning.

Examined how decolonizing education creates more inclusive environments by challenging personal perspectives and identifying where colonial notions of power and value permeate educational structures, recognizing how choices made as an educator can either perpetuate or dismantle these systems.

Implemented UDL principles that honor diverse ways of knowing and learning by transforming data collection and reporting practices to create educational environments where identity and social location do not predict success, but instead where students develop agency in their learning journey.

WRDSB Microsoft Power BI Hands-On Training; Go Analytics 2023

Mastered the full spectrum of Power BI tools, from data connection to publishing dynamic dashboards.

Learned from Microsoft Certified instructor Klayton Gonçalves, leveraging his extensive data analytics expertise.

Gained proficiency in Power Query for data transformation and DAX for creating calculated columns and measures.

Developed skills in building interactive visualizations and employing best practices for effective data presentation.

The Scientist Knowledge Translation Training (SKTT™); SickKids   2018

Completed intense 2-day workshop focused on effective research dissemination across fields like health, education, and social sciences.

Learned from Dr. Melanie Barwick, an expert in implementation science and knowledge translation, on enhancing research impact.

Acquired strategies for making complex scientific information accessible to non-academic audiences.

Developed skills in creating impactful knowledge translation plans tailored to diverse user groups.

University of Waterloo graduate level training, selected examples follow:

Multiple Regression (Psychology 632)

Analysis of Variance (Psychology 630)

Experimental Design (Statistics 830)

Data Analysis in Neuroscience (Biology 681)

Visual Perception (Psychology 287)

Nature & Computational Correlations of Intelligence (Psychology 670)

Cognitive Neuropsychology I (Psychology 779A)

Human Neuroanatomy and Neuropathology (Psychology 784)

Technical Skills

Data Analysis & Research Tools

Statistical Software: Two decades of experience with R for statistical programming, data visualization, and automated report generation; experienced with SPSS for social sciences research.

Data Visualization & Reporting: Expert in creating interactive dashboards with Power BI, developing reproducible reports with Quarto, R Notebooks, and Shiny applications.

Survey & Assessment Tools: Experienced with Alchemer and Qualtrics for survey design, data collection, and management.

Educational Data Systems

Student Information Systems: Proficient with Aspen and related educational databases.

Database Management: Experienced with Microsoft SQL Server, MySQL, and SQLite; skilled in database design, query optimization, and data governance for educational contexts.

Data Integration: Expert in designing and maintaining data pipelines that connect multiple educational platforms, ensuring reliable data flow for analytics and research.

Research & Academic Skills

Statistical Expertise: Advanced knowledge of experimental design, hypothesis testing,

multivariate analysis, generalized linear models, Bayesian methods, and modern machine learning approaches; specialized in educational data mining and predictive modeling.

Academic Publishing: Proficient with LaTeX and BibTeX for technical and scientific documents; experienced in creating reproducible research workflows.

Programming Languages: In addition to R; working knowledge of Python with Jupyter notebooks for data analysis; familiar with shell scripting, compiled languages, and web technologies.

Collaborative & Development Tools

Version Control: Experienced with Git and GitHub/Forgejo platforms for collaborative research projects and code management.

Project Management: Skilled in implementing continuous integration workflows and managing collaborative research environments.

Infrastructure: Experienced self-hosted computing infrastructure on Linux, OpenBSD, and FreeBSD; experience building secure, on-premises data science solutions for educational institutions.

PUBLICATIONS

Refereed:

Lee, L., **Locklin, J.**, Patel, T., Lu, S. K., Hillier, L. M. (2022) Recruitment of participants for dementia research: interprofessional perspectives from primary care-based memory clinics. Neurodegenerative Disease Management. 12 (3), 117-127 doi:10.2217/nmt-2021-0053

Lee, L., Hillier, L., **Locklin, J.**, Lee, J., Slonim, K. (2019) Advanced care planning for persons with dementia in primary care: Attitudes and barriers among health-care professionals. Journal of palliative care, 34 (4), 248-254. doi:10.1177/0825859718812463

Lee, L., Hillier, L., **Locklin, J.**, Lumley-Leger, K., Molnar, F. (2019) Specialist and family physician collaboration: Insights from primary care-based memory clinics. Health & Social Care in the Community. 27 (4), e522-e533. doi:10.1111/hsc.12751

Lee, L., Patel, T., **Locklin, J.**, Milligan., J., Pefanis, J., Costa, A., Lee, J., Slonim, K., Giangregorio, L., Hunter, S., Keller, H., Boscart, V. (2018). Frailty screening and case-finding for complex chronic conditions in older adults in primary care. Geriatrics, 3 (3), 39. doi:10.3390/geriatrics3030039

Locklin, J. (2015). *Perceptual and Memory Deficits in Unilateral Neglect.* (Dissertation, University of Waterloo, Waterloo, Canada).
Retrieve from hdl.handle.net/10012/9590

Locklin, J., Bunn, L., Roy, E. & Danckert, J. (2010). Measuring Deficits in Visually Guided Action Post-Concussion. *Sports Medicine, 40*, 183-187.
doi:10.2165/11319440-000000000-00000

Locklin, J. (2009). *Development of a measure of visuomotor control for assessing the long-term effects of concussion.* (Master's thesis, University of Waterloo, Waterloo, Canada).
Retrieve from hdl.handle.net/10012/4740

Striemer, C., **Locklin, J.**, Blangero, A., Rossetti, Y., Pisella, L. & Danckert, J. (2009). Attention for action? Examining the link between attention and visuomotor control deficits in a patient with optic ataxia. *Neuropsychologia, 47*(6), 1491-1499.
doi:10.1016/j.neuropsychologia.2008.12.021

Non-Refereed:

Locklin, J. (2024) R training workshop notes. Retrieve from rpubs.com/jasonL/module1, rpubs.com/jasonL/module2, and rpubs.com/jasonL/module3

Locklin, J. (2024). AERO Lunch and Learn notes. Retrieve from Rpubs.com/jasonL/LandL

2022-2023 Safe, Caring and Inclusive School Survey – Summary Report (2024). Public report produced by the Waterloo Region District School Board. Retrieve from wrdsb.ca/about-the-wrdsb/research/reports/scis/2022-2023-safe-caring-and-inclusive-school-survey-summary-report/

Newman, G., Duffy, C., Powell, A., Gray, R., & **Locklin, J.** (2012). Position Paper on Electromagnetic Hypersensitivity (Idiopathic Environmental Intolerance Attributed to Electromagnetic Fields). Canada: *Bad Science Watch*.
Retrieve from www.badsciencewatch.ca/projects/investigation-of-anti-wifi-activism-in-canada

Locklin, J., & Danckert, J. (2010). Do we have Independent Visual Streams for Perception and Action? a Response. Preprint.
Retrieve from cogprints.org/6854/

Conference Contributions:

Lee, L., Hillier, L., **Locklin, J.**, Lumley Leger, K., & Molnar, F. (2018). Specialist and Family Physician Collaboration: Insights from Primary Care Collaborative Memory Clinics. Poster presented at the CGS 38th Annual Scientific Meeting, Markham, Canada. Abstract published in *Canadian Geriatrics Journal*, *21*(3), 218–261. doi:10.5770/cgj.21.334

Lee, L., **Locklin, J.**, Patel, T., & Lu, S. (2018). Interdisciplinary Perspectives on Recruitment of Participants for Clinical Research in the Primary Care Collaborative Memory Clinic Setting. Poster presented at the CGS 38th Annual Scientific Meeting, Markham, Canada. Abstract published in *Canadian Geriatrics Journal*, *21*(3), 218–261. doi:10.5770/cgj.21.334

Lee, L., **Locklin, J.**, Skimson, K., & Patel, T. (2018). Frailty Screening in Primary Care: A Pilot Study Involving Collaboration Between Community Pharmacy and Family Practice. Poster presented at the CGS 38th Annual Scientific Meeting, Markham, Canada. Abstract published in *Canadian Geriatrics Journal*, *21*(3), 218–261. doi:10.5770/cgj.21.334

Locklin, J., Danckert, J. (2009). Changes in Visuomotor Performance of Concussed Individuals. Poster. Abstract published in *Journal of Vision*, *9:8*, 1103-1103. doi:10.1167/9.8.1103

Law, A., McCabe, S., **Locklin, J.**, Tan, C., & Morris, S. (2006). Perceptions of social rank as a predictor of anger and depression symptoms. Poster presented at the Graduate Student Research Conference, University of Waterloo, Waterloo, Canada.