Matthew J. Sigal, PhD

History, Quantitative & Theoretical
Department of Psychology
6155 Robert C. Brown Hall
Simon Fraser University
8888 University Drive
Burnaby, BC, V5A 1S6
E-mail: matthewsigal@gmail.com / msigal@sfu.ca
Website: http://www.matthewsigal.com

Professional History

2018-present	**Lecturer**, *Simon Fraser University*. **Specialization:** History, Quantitative & Theoretical Psychology.

Education

2017	**PhD**, *York University*, Toronto, Ontario, Area: Quantitative Methods.
2010	**MA**, *York University*, Toronto, Ontario, Area: History and Theory of Psychology.
2008	**BA (Hons.)**, *Bishop's University*, Sherbrooke, Quebec, Major: Psychology.

Dissertation

Title	Everything on the table: Tabular, graphic, and interactive approaches for interpreting and presenting Monte Carlo simulation data.
Committee	Michael Friendly, David Flora, Robert Cribbie, Georges Monettes, R. Walter Heinrichs, and Wayne Oldford

Scholarships & Awards

2017	M. Friendly Award for Methodology Research, York University
2015	Excellence in Innovation, Multi-Health Systems
2013	Professional Development Fund, CUPE 3903, York University ($400)
2013-2014	Ontario Graduate Scholarship ($15,000)
2012-2013	Queen Elizabeth II Graduate Scholarship in Science and Technology, Ontario Ministry of Training, Colleges and Universities ($15,000)
2012	Professional Development Fund, CUPE 3903, York University ($400)
2011	Certificate of Teaching Excellence, Teaching Assistantship Award, Council of Canadian Departments of Psychology
2010	Research Cost Fund, CUPE 3903, York University ($500)
2008	Graduate Studies Entrance Scholarship, York University ($6,000)
2008	Certificate of Academic Excellence in Undergraduate Research, Canadian Psychological Association

Published Articles

Friendly, M., & Sigal, M. J. (2017). Graphical methods for multivariate linear models in psychological research: An R tutorial. *The Quantitative Methods for Psychology*, *13*(1), 20–45. doi: 10.20982/tqmp.13.1.p020

Sigal, M. J., & Chalmers, R. P. (2016). Play it again: Teaching statistics with Monte Carlo simulation. *Journal of Statistics Education*, *24*(3), 136-156. doi: 10.1080/10691898.2016.1246953

Friendly, M., Sigal, M. J., & Harnanansingh, D. (2015). The Milestones Project: A database for the history of data visualization. In M. A. Kimball & C. Kostelnick (Eds.), *Visible Numbers*. Ashgate Publishing.

Sigal, M. J. (2015). Visualizing likert-type data. *Psychostatistics: Newsletter of the Quantitative Methods Section of the Canadian Psychological Association*, *1*, 3.

Friendly, M., & Sigal, M. J. (2014b). Some prehistory of CARME: Visual language and visual thinking. In J. Blasius & M. Greenacre (Eds.), *Visualization and Verbalization of Data* (chap. 1). Chapman and Hall.

Friendly, M., & Sigal, M. (2014a). Recent advances in visualizing multivariate linear models. *Revista Colombiana de Estadistíca*, *37*(2), 261–283. doi: 10.15446/rce.v37n2spe.47934

Sigal, M. J., & Pettit, M. (2012). Information overload, professionalization, and the origins of the *Publication Manual* of the American Psychological Association. *General Review of Psychology*, *16*(4), 357-363. doi: 10.1037/a0028531

Sigal, M. J. (2012). *An Applied Introduction to SPSS*. Toronto, ON: Institute for Social Research, York University.

Sigal, M. J., & McKelvie, S. J. (2012). Is exposure to visual media related to cognitive ability? Testing Neisser's hypothesis for the Flynn effect. *Journal of Articles in Support of the Null Hypothesis*, *9*(1), 23-50.

Sigal, M. J., & Pettit, M. (2010). [Review of J. Goodwin's *A History of Modern Psychology: Third Edition*]. *Canadian Psychology*, *51*(1). doi: 10.1037/a0018471

Published Software

Chalmers, R. P., & Sigal, M. J. (2016). *SimDesign: Structure for organizing Monte Carlo simulation designs.* R package, `http://CRAN.R-project.org/package=SimDesign`.

Friendly, M., Chalmers, R. P., & Sigal, M. J. (2016). *statquotes: Quotes on Statistics, Data Visualization and Science.* R package, `http://CRAN.R-project.org/package=statquotes`.

Chalmers, R. P., Smith, C. E., & Sigal, M. J. (2012). *OLScurve: OLS growth curve trajectories.* R package, `http://CRAN.R-project.org/package=OLScurve`.

Convention Papers, Posters, and Invited Presentations

Belliveau, A., Sigal, M. J., & Ball, L. (2017, June). Reevaluating the Essen Climate Evaluation Schema. Poster presented at the annual meeting of the Canadian Psychological Association, Toronto, ON.

Sigal, M. J. (2017, March). Table dressing: Strategies for improving tabular displays of Monte Carlo simulation results. Applied lecture given at the Quantitative Methods Forum, York University, Toronto, ON.

Friendly, M., & Sigal, M. J. (2017, January). Visualizing tests for equality of covariance matrices. Applied lecture given at the Quantitative Methods Forum, York University, Toronto, ON.

Belliveau, A., & Sigal, M. J. (2016, August). Chronological celluloid cartography: Mapping the history of psychology's films. Paper presented at the American Psychological Association conference, Colorado Convention Center, Denver, CO.

Friendly, M., & Sigal, M. J. (2016, June). Visualizing multivariate linear models in `R`. Paper presented at Cinquièmes Recontres `R` conference, Toulouse, France.

Sigal, M. J. (2016, February). Everything on the table: Demystifying the results of simulation studies and other complex tables. Applied lecture given at the Quantitative Methods Forum, York University, Toronto, ON.

Sigal, M. J. (2015, March). Introduction to `R` for psychometrics. Full-day applied workshop given at Multi-Health Systems, Inc., Toronto, ON.

Sigal, M. J. (2015, January). MSCEIT meets MIRT: Assessing the psychometric properties of emotional intelligence. Applied lecture given at the Quantitative Methods Forum, York University, Toronto, ON.

Sigal, M. J. (2013, December). Introduction to computerized adaptive testing. Applied lecture given at York University, Toronto, ON.

Sigal, M. J. (2013, November). Multiple trait, multiple method models. Applied lecture given at York University, Toronto, ON.

Sigal, M. J. (2013, October). The grammar of (interactive) graphics. Applied lecture given at the Quantitative Methods Forum, York University, Toronto, ON.

Sigal, M. J., & Friendly, M. (2013, August). Statistical historiography: Plotting the history of data visualization via the Milestones Project. Paper presented at the American Psychological Association conference, Honolulu, Hawaii.

Counsell, A., Sigal, M. J., Chalmers, R. P., & Cribbie, R. (2013, May). Extending the Robust Means Modeling Framework. Paper presented at the Modern Modeling Methods conference, Storrs, Connecticut.

Friendly, M., & Sigal, M. J. (2013, May). Visualization for multivariate linear models. Paper presented at the Statistical Society of Canada conference, Edmonton, AL.

Friendly, M., & Sigal, M. J. (2013, April). Recent Advances in Visualization for Multivariate Linear Models. Paper presented at Statistics Day at York University, Toronto, ON.

Sigal, M. J. (2012, July). From instructions to standards: The maturation of publication policies for American psychology. Paper presented at the Joint Meeting of Cheiron and the European Society for the History of Human Sciences, Dawson College, Montreal, QC.

Sigal, M. J. (2012, June). Counting the seconds: Working with reaction time data. Paper presented at the Social and Personality Psychology symposium on Recent Advances in Data Screening and Solutions to Assumption Violations at the Canadian Psychological Association conference, World Trade and Convention Centre, Halifax, NS.

Anisef, P., Brown, R., Conley, C., Maldonado, V., Sigal, M. J., & Smith, C. E. (2012, February). The big picture: Visualizing issues of post-secondary education access. Poster presented at the Ontario Education Research Symposium, Toronto, ON.

Sigal, M. J. (2011, November). Make it pretty! Graphical post-processing using Adobe Illustrator. Applied lecture given at the Quantitative Methods Brownbag Series, York University, Toronto, ON.

Sigal, M. J. (2011, April). Introduction to SPSS workshop. Lecture given at the Ministry of Child and Youth Services, Toronto, ON.

Sigal, M. J. (2010, August). Statistical thinking and methodology for medical research. Lecture given at the University of Toronto, Toronto, ON.

Sigal, M. J. (2010, June). The origins of the 'Bible': The historical roots of the American Psychological Association's Publication Manual. Paper presented at Cheiron: The International Society for the History of Behavioral and Social Sciences, LeMoyne College, Syracuse, NY.

Sigal, M. J. (2009, August). Applied statistics for graduate-level theses in dentistry. Lecture given at the University of Toronto, Toronto, ON.

Sigal, M. J. (2009, November). APA style: The *Publication Manual* as a foundation for discursivity in 20th century American psychology. Paper presented at the 2009-2010 History and Theory of Psychology Colloquium Series, York University, Toronto, ON.

Sigal, M. J. (2008, April). The influence of visual media on fluid intelligence. Poster presented at the 2007-2008 Research Week, Bishop's University, Lennoxville, QC.

Professional and Teaching Experience

Course Directorships

2016, Fall   PSYC 3256: Design and Analysis, Laurentian University, Barrie, ON.

2015, Winter   PSYC 3031: Intermediate Statistics Laboratory, York University, Toronto, ON.

2013, Winter   PSYC 2020: Statistical Methods I, York University, Toronto, ON.

Workshops and Short Courses

2014, Summer   An Introduction to Data Analysis with R, Continuing Education workshop held at the APA conference, Washington, D.C.

2014, Spring   An Introduction to Data Analysis with R, Institute for Social Research (ISR), York University, Toronto, ON.

2014, Winter   An Introduction to Data Analysis with R, ISR, York University, Toronto, ON.

2013, Summer   An Introduction to Data Analysis with R, Continuing Education workshop held at the APA conference, Honolulu, Hawaii.

2013, Spring   An Applied Introduction to SPSS, ISR, York University, Toronto, ON.

2013, Winter   An Applied Introduction to SPSS, ISR, York University, Toronto, ON.

2012, Fall   An Applied Introduction to SPSS, ISR, York University, Toronto, ON.

Other Professional Experience

2014-2015:   Psychometrician at Multi-Health Systems, Inc. (MHS), Toronto, ON, Canada.

2011-present   Web administrator and contributor with the "Milestones Project" (http://www.datavis.ca/milestones/), York University.

2011-2013:   Statistical consultant for the Knowledge Network for Applied Education Research (KNAER) initiative with the Ontario Ministry of Education (OME) and the Toronto District School Board (TDSB).

2011-2013   Administrator for the Quantitative Methods area website, York University.

2011-2013   Coordinator for the Quantitative Methods colloquium series, York University.

2010-2011   Research Assistant for Dr. Michael Friendly, York University.

2010-2016:   Consultant with the Statistical Consulting Service (SCS) at the ISR, York University.

2009-present: Partner and consultant at *df* Consulting (http://www.dfconsulting.org).

2008-2009   Research Assistant for Dr. Michael Pettit, York University.