

# Mark Christopher Adkins

Curriculum Vitæ

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## Education

- 2017–Present **PhD Candidate**, *York University*, Toronto, Area: Quantitative Methods in Psychology
- 2017 **MA**, *York University*, Toronto, Area: Quantitative Methods in Psychology
- 2015 **BA Hons**, *University of Regina*, Regina, High Honors: Psychology  
Minors: Computer Science, Philosophy

## Skill matrix



	Level	Skill	Years	Comment
Language:	■ ■ ■ ■ ■	R	7	<i>Rmarkdown, SimDesign, Tidyverse, Shiny, ggplot2</i>
	■ ■ ■ ■ ■	HTML5	3	
	■ ■ ■ ■ ■	CSS3	3	<i>Bootstrap 4</i>
	■ ■ ■ ■ ■	Javascript	2	<i>Jquery</i>
	■ ■ ■ ■ ■	SQL	1	<i>MySQL</i>
Methods:	■ ■ ■ ■ ■	Hierarchical Linear modelling	3	<i>Random Effects Models, Multi-level Models</i>
	■ ■ ■ ■ ■	Categorical Data Analysis	3	<i>Logistic Regression, Polytomous Response Models, Generalized Linear Models</i>
	■ ■ ■ ■ ■	Item Response Theory	2	<i>2PL Graded Response Models</i>
General:	■ ■ ■ ■ ■	Data Cleaning	7	
	■ ■ ■ ■ ■	Open Science Practices	3	<i>Preregistration, Open Data, Open Source Code, Computational Reproducibility</i>
	■ ■ ■ ■ ■	GitHub	5	<i>Version Control</i>

■ ■ ■ ■ ■ ■ ■ ■	Project Management	7	
■ ■ ■ ■ ■ ■ ■ ■	Data Visualization	7	<i>Interactive Graphics</i>

## Quantitative Methods Graduate Courses

- Winter 2021 Computational Methods for Statistical Modelling
- Winter 2020 Introduction to Bayesian Statistics
- Winter 2020 Statistical modelling of Perception and Cognition
- Winter 2019 Best Practices in Quantitative Research Methods
- Winter 2018 Longitudinal Data Analysis
  - Fall 2017 Categorical Data Analysis
  - Fall 2016 Hierarchical Linear modelling
  - Fall 2016 Psychometric Methods
- Winter 2016 Univariate Analysis II: Regression
  - Fall 2015 Univariate Analysis I: Analysis of Variance
  - Fall 2015 Multivariate Analysis

## Research Articles

- 2022 Heise, V., Holman, C., Lo, H., Lyras, E. M., **Adkins, M. C.**, Aquino, M. R. J., Bougioukas, K. I., Bray, K., Gajos, M., Guo, X., Hartling, C., Huerta-Gutierrez, R., Jindrová, M., Kenney, J., Kępińska, A. P., Kneller, L., Lopez-Rodriguez, E., Mühlensiepen, F., Richards, A., Richards, G., Siebart, M., Smith, J. A., Smith, N., Stransky, N., Tarvainen, S., Valdes, D. S., Warrington, K., Wilpert, N. M., Witkowski, D., Zaneva, M., Zanker, J., & Weissgerber, T. *Ten simple rules for implementing open and reproducible research practices after attending a training course*. PLOS Computational Biology, 19(1), e1010750.
- 2022 Pathman, T., Decker, L., Parmar, P., **Adkins, M. C.**, & Polyn, S. *Children's memory "in the wild": Examining the temporal organization of free recall from a week-long camp at a local zoo*. Cognitive Research: Principles and Implications, 8(1), 6. <https://doi.org/10.1186/s41235-022-00452-z>
- 2020 Chalmers, R. P., & **Adkins, M. C.** Writing Effective and Reliable Monte Carlo Simulations with the SimDesign Package. *The Quantitative Methods for Psychology*, 16(4), 248-280. <https://doi.org/10.20982/tqmp.16.4.p248>
- 2020 Price, H. L., Bruer, K. C., & **Adkins, M. C.** Using machine learning analyses to explore relations between eyewitness lineup looking behaviors and suspect guilt. *Law and human behavior*, 44(3), 223. <https://doi.org/10.1037/lhb0000364>
- 2016 Pek, J., Armstrong, B., **Adkins, M. C.**, Flake, J. K., & Spaniol, J. Predictors of problem gambling among seniors in Ontario (Gambling Exchange Research Ontario Technical Report).

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## Workshops

- June 2021 **Adkins, M.C.**. *So, you want to be a SimDesign(er)?*. Psychology Post Graduate Affairs Group (PSYPAG) and the Mathematics, Statistics, and Computing Psychology (MSCP) section of the British Psychological Society (BPS) Simulation Summer School. <https://simsummerschool.github.io/>
- June 2021 **Adkins, M.C.**, Alter, U., Beribisky, N., Chalmers, R. P., Wang., Y. A. *Understanding and Incorporating Data Simulation into the Research Pipeline: A Practical Guide for the Novice Simulator*. Society for Improving Psychological Science 6th Annual Meeting, Remote edition. <https://www.improvingpsych.org/SIPS2021/>
- May 2021 **Adkins, M.C.**. *Preregistration: A Practical Guide*. Workshop. York University's Quantitative Methods Spring Workshop Series, Toronto, Ontario, Canada.
- Feb 2021 **Adkins, M.C.**. *So, you want to be a SimDesign(er)?* Workshop. Presented for Reproducibilitea Toronto Journal Club. <https://osf.io/tc6ga/>
- July 2020 **Adkins, M.C.**, & Cribbe, R. *Better (and Quicker) Data Cleaning using R and the Tidyverse*. Pre-Convention PD Workshop - Half Day. 81st Canadian Psychological Association Annual National Convention, Montréal, Quebec, Canada.
- July 2020 **Adkins, M.C.** *Small Steps Towards Reproducible Data Analyses*. Workshop (85 minutes). 81st Canadian Psychological Association Annual National Convention, Montréal, Quebec, Canada.

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## Convention Papers and Invited Presentations

- 2023 Green, C. D., Crone, G., & **Adkins, M. C.**. *p-Hacking and Statistical (Mis)reporting: What Do Past p-Values Indicate?* Review session presented at the Canadian Psychological Association's Annual National Convention. Toronto, Canada.
- 2023 **Adkins, M. C.**. *Mind the gap: Assessing current pedagogical approaches to teaching effect size estimation and interpretation in university level psychology statistics classrooms* Invited talk at the Quantitative Psychology Forum. York University.
- 2022 **Adkins, M. C.**, *Integrating User Experience and Behavioural Design: A pilot project to help students better understand data and how to clean it*. Invited talk at the Quantitative Psychology Forum. York University.
- 2021 t Hart, B. M., & **Adkins, M. C.** *Project Management (in R)*. Invited workshop for the 47th annual biology symposium presented by the Association of Graduate Students in the Biological Sciences. York University, Toronto, Canada.
- 2020 Counsell, A., Campbell, L., Alter, U., & **Adkins, M. C.**, *Increasing Awareness and Adoption of Open Science Practices*. [conference session cancelled]. Society for Improving Psychological Science 5th Annual Meeting, Victoria, BC, Canada. <https://www.improvingpsych.org/SIPS2020/>
- 2019 **Adkins, M. C.**, *Little Steps: A Primer on Open Science Practices*. Invited talk at the Quantitative Psychology Forum. York University.

- 2018 **Adkins, M. C.**, & Pek, J. *Best Practices for Constructing Confidence Intervals for the General Linear Model Under Non-Normality*. Poster presentation at the 2018 International Congress of Applied Psychology & the Canadian Psychological Association's Annual General Meeting. Montréal, Québec.
- 2018 **Adkins, M. C.**, *Data Thuggery 101: A few tools of the trade*. Invited talk at the Quantitative Psychology Forum. York University.
- 2018 Green, C. D., **Adkins, M. C.**, Austerberry, E., Davidson, I. J., DiGiovanni, J., Lysenko, N. & Villani, L. K. *Which statistical tests have which psychological subdisciplines been using for how long?* Paper presentation at the meeting of the European Society for the History of the Human Sciences. University of Groningen, The Netherlands.
- 2018 Green, C. D., **Adkins, M. C.**, Austerberry, E., Davidson, I. J., DiGiovanni, J., Lysenko, N. & Villani, L. K. *How Fisher's Dream Became Lakatos' Nightmare: An Historical Survey of the Psychologists' Use of (Mostly) Inferential Statistics*. Paper presentation at the 50th Annual Meeting of Cheiron. University of Akron, Akron, Ohio.
- 2017 **Adkins, M. C.**, *How Prolific are Statistical Anomalies in Psychological Research?* Invited talk at the Quantitative Psychology Forum. York University.
- 2016 **Adkins, M. C.**, *Predictors of Problem Gambling Among Seniors in Ontario*. Invited talk at the Quantitative Psychology Forum. York University.
- July 2015 **Adkins, M. C.** & Oriet, C. *Intuitive statistical reasoning: Improving students' understanding of normative ANOVA logic*. Poster presentation at the 2015 Canadian Society for Brain, Behavioural, and Cognitive Science annual meeting. Ottawa, Ontario.

## Teaching Experience

- Winter 2022 Teaching assistant for second year statistical methods courser at York University (PSYC 2021).
- Fall 2021 Teaching assistant for third year lab based statistics course (PSYC 3031).
- Winter 2021 Teaching assistant for second year statistical methods course at York University (PSYC 2022).
- Winter 2021 Teaching assistant for third year lab based statistics course (PSYC 3031).
- Fall 2020 Teaching assistant for third year lab based statistics course (PSYC 3031).
- Fall 2019 Course director for second year statistical methods course at York University (PSYC 2531 Glendon Campus).
- Fall 2019 Course director of a four-part short course, *Introduction to R and the Tidyverse*, for the Statistical Consulting Service at the Institute for Social Research, York University.
- Fall 2019 Teaching assistant for third year lab based statistics course (PSYC 3031)
- Summer 2019 Course director of a four-part short course, *Introduction to R and the Tidyverse*, for the Statistical Consulting Service at the Institute for Social Research, York University.

- Summer 2019 Teaching assistant for second year statistical methods course at York University (PSYC 2022).
- 2018-2020 Teaching assistant for the Statistical Consulting Services (SCS) whose duties included assisting undergraduate thesis students with their projects at York University and conducting a three-part workshop series on using statistical software, data analysis, and report writing.
- Fall 2018 Course director of a four-part short course, *Introduction to R and the Tidyverse*, for the Statistical Consulting Service at the Institute for Social Research, York University.
- 2017-2018 Teaching assistant for graduate univariate statistics class at York University during the fall and winter semesters (PSYC 6131).
- Winter 2018 Teaching assistant for graduate univariate statistics class at York University. (PSYC 6132).
- 2016-2017 Teaching assistant for second year statistical methods course during the fall and winter semesters at York University (PSYC 2020).
- Winter 2016 Teaching assistant for second year statistical methods courser at York University (PSYC 2022).

## Honours and Awards

- 2020 Council of Canadian Departments of Psychology - Certificate of teaching excellence: Teaching Assistantship Award
- 2020 The Psychological Science Accelerator's PSA001 Data Analysis Challenge Winner (\$200)
- 2019 PGSA student initiative award (\$150)
- 2019 York University Graduate Fellowship - Doctoral Domestic (\$5400)
- 2018 York University Graduate Fellowship - Doctoral Domestic (\$5400)
- 2017 York University Graduate Fellowship - Masters Domestic (\$5400)
- 2016 York University Graduate Fellowship - Masters Domestic (\$5400)
- 2015 York Entrance Graduate Scholarship (\$6000)
- 2015 University of Regina: Academic Silver Scholarship; retroactive (\$800)
- 2015 University of Regina: Academic Silver Scholarship (\$1600)
- 2014 University of Regina: Academic Silver Scholarship (\$1000)

## Research Experience

- 2022 Conducted formal survey analysis for Dr. Atsuko Matsuoka which explored how or whether Ontario Social Workers include animals in their formal assessments. Currently writing a manuscript for submission.
- 2020 Research assistant for Dr. Monique Herbert on project titled "Developing and testing online activities for undergraduate statistics"
- 2020 Team leader for the PSA001 Secondary Analysis Challenge (incomplete pre-print of our team's manuscript can be found at <https://psyarxiv.com/5bv2p/>)

- 2020 Research assistant for Dr. Jeni Pathman doing data cleaning and running various analyses.
- 2018 Created interactive *Shiny* application using *R* to explore database of APA journal articles for the PSYBORG lab.
- 2016 Assisted Dr. Jolynn Pek with data analysis and report writing for Gambling Research Exchange Ontario (GREO).
- Summers of 2014, 2015, & 2016 Assisted the Child and Law Lab at the University of Regina with data collection, transcribing, and programming reaction time experiments using E-Prime 2.0.

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## Professional Activities

- 2019-2021 Founder of the ReproducibiliTea (Toronto branch) journal club for open and reproducible science.
- 2019-2020 Student Coordinator for the Quantitative Methods Forum at York University.
- 2019-2020 Methods reviewer for the Psychological Science Accelerator.
- 2019 Attended the Oxford | Berlin Summer School on Open Science. University of Oxford, UK.
- 2019-2020 Member of the Psychological Science Accelerator (PSA).
- 2019-2020 Member of the Society for the Improvement of Psychological Science (SIPS).
- 2017-2019 Student Mentor in the Psychology Undergraduate Mentorship Program (PUMP) at York University.
- 2017-2019 Student Representative for the Quantitative methods section of the Canadian Psychological Association (CPA).
- 2016-2019 York University Psychology Graduate Students' Association (PGSA) Departmental Representative.

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## Ad hoc Reviewer

The R Journal

Frontiers in Psychology: Quantitative Psychology and Measurement