

Nicholas Baird

8010 QUEEN AVE S APT 107, BLOOMINGTON, MN
(952) 242-6585 ✉ BAIRD066@UMN.EDU

Composed October 2015

Education

Bachelor of Science, Psychology (GPA 3.507) University of Minnesota, Minneapolis,
Expected Graduation Spring 2016.

Subjects include: Quantitative and Psychometric Methods, Advanced Psychological and Educational Measurement, Adolescent Psychology, Cognitive Psychology, Discrete Structures of Computer Science, Introduction to C/C++, Introduction to Algorithms, Data, Structures, and Program Development, User Experience in Design, and Web Design.

Research

Department of Psychology, University of Wisconsin, Madison.
Researcher Assistant Summer 2015:

“You test what you can name: the role of dimensional nameability in testing hypotheses during category learning.”

Faculty Mentor: Gary Lupyan Ph. D., Assistant Professor, Department of Psychology.

- Worked in tandem with a Ph. D. graduate student to design and develop HTML and JavaScript web experiments.
 - Experiments tested language’s role in a problem-solving task.
- Recruited, briefed, and analyzed data from participants collected via online job forum (Amazon Mechanical Turk).
- Reiterated web experiments to improve functionality based off user data from participants.
- Composed a 20-page research paper documenting the experiment.
 - Literature review, methodology, results, and discussion.
- Presented results via PowerPoint to audience of 30 professors and scholars.

Department of Educational Psychology, University of Minnesota, Minneapolis.
[Graduate] Researcher Assistant Spring 2015:

Formative Assessment System for Teachers (FAST): Kindergarten through grade 12 reading (aReading) ability analysis--fastforteachers.org.

Research Director: Ted Christ Ph. D., Associate Professor, Department of Educational Psychology.

- Worked with a team consisting of two professors and one Ph. D. graduate student to implement a multidimensional item response theory (MIRT) analysis using five dimensions.
 - Concepts of print, comprehension, vocabulary, phonics, and phonological awareness.
- Developed **R code** to format and describe K - 12 testing data contained in ~7,000 student by ~700 item response matrices.
 - Generated summary statistics and visual color maps to better understand items and response patterns.
- Utilized specialty software (BMIRT) to obtain one overall and five sub-domain ability estimates.
- Analyzed MIRT model fit to the data and diagnosed usability for FAST.
- Prepared MIRT model to be implemented by software engineers for practical use in FAST software.
- Composed a technical manual of procedures taken by team to ensure future reproducibility.

Department of Psychology, University of Minnesota, Minneapolis.
Lead Student Researcher Autumn 2014:

Graduate seminar: Continued research on "Measurement Matters" material.

Faculty Mentor: David Weiss Ph. D., Professor, Department of Psychology.

- Presented and taught "Measurement Matters" research to graduate seminar students.
 - Covered mathematics, methodology, results, and discussion sections of the summer [2014] experiment.
- Critiqued original experiment's methods and mathematics with seminar students.
 - Established new research tasks to be undertaken.
- Developed and implemented new programming in **R code** for conducting discussed changes during seminar critique.
- Communicated with other graduate students to assist in programming code and troubleshooting.
- Documented changes and revised "Measurement Matters" paper to reflect the improvements generated from the seminar experience (65-page document).

Department of Psychology, University of Minnesota, Minneapolis.
Lead Student Researcher Summer 2014:

"Measurement Matters: Effects of measurement error on statistical analysis involving one-sample t-tests."

Faculty Mentor: David Weiss Ph. D., Professor, Department of Psychology.

- Developed and implemented programming in **R code** for executing a simulation study.
 - Included tasks like visualizing theories and investigating model assumptions.
- Analyzed simulations and discussed relationships between methodology and research

question.

- Composed a 60-page research paper documenting the experiment.
 - Literature review, methodology, results, discussion and appendices of **R code**.
- Designed a poster illuminating the steps of the research project: showcasing the major implications resulting from the study.
- Presented poster with a focus on the implications and future goals for the research at the McNair Poster Presentation, All University Research Symposium, and 23rd Annual McNair Research Conference and Graduate Fair.

Department of Psychology, University of Minnesota, Minneapolis.

Student Researcher Spring 2013:

Group Performance: “How does female attractiveness impact group performance in cognitive tasks?”

Lab Instructor: John Myers, Teaching Assistant, Department of Psychology.

- Worked with a group of 4 undergraduate students to develop a simple researcher topic.
- Designed a working model of factors, levels, ranges, and response variables to test with human participants.
- Conducted experiment over two weeks and compiled data via SPSS software.
- Reviewed Institutional Review Board guidelines for conducting human subject research and utilized all relevant procedures during and after contact with our participants.
- Presented results of experiment along, areas for further research, and limitations of our chosen methodology.

Department of Educational Psychology, University of Minnesota, Minneapolis.

Research Assistant Autumn 2012:

Formative Assessment Systems for Teachers (FAST): Kindergarten through grade 12 testing project.

Supervisor: Mary Jane White, Research Associate, Department of Educational Psychology.

- Edited HTML program code for formatting of online student exams.
- Organized and prepared document packages for reading assessment of 6 - 12 grade students.
- Collected and organized an EXCEL spreadsheet of all federally listed K - 12 schools in the U.S.A to assist granting funds and improve access to desired school districts.
- Reconstructed dates in a data set to reflect a student's range of activity in calendar day format.

Presentations

Baird, N. Psychology Experience Research Program Presentation, July 31 2015, Hosted by The Department of Psychology, University of Wisconsin, Madison. Provided an informative PowerPoint with dialogue: You test what you can name: the role of dimensional nameability in testing hypotheses during category learning.

Baird, N. McNair Research Presentation, October 30 2014, Hosted by the 23rd Annual McNair Research Conference and Graduate Fair, Lake Geneva, Wisconsin. Provided an informative PowerPoint with dialogue: Measurement Matters: Effects of measurement error on statistical analysis involving one sample t-tests.

Baird, N. McNair Research Presentation, July 31 2014, Hosted by The College of Education and Human Development, University of Minnesota. Provided an informative poster with dialogue: Measurement Matters: Effects of measurement error on statistical analysis involving one sample t-tests.

Baird, N. All University Research Symposium, August 7 2014, Hosted by the University of Minnesota. Provided an informative poster with dialogue: Measurement Matters: Effects of measurement error on statistical analysis involving one sample t-tests.

Baird, N., Fisher, J., Mendola-White, S., Peterson, D. Research Methodology Course Presentation, May 4 2014, Hosted at the University of Minnesota. Provided an informative PowerPoint with dialogue: Group Performance: How does female attractiveness impact group performance in cognitive tasks?

Baird, N. The Lions' Roar Intercollegiate Speech Competition, May 10 2011, Hosted by Normandale Community College. Provided a persuasive dialogue about debunking common myths in psychology.

Projects

Sole designer/programmer of <http://www.goodquestiongames.com>

Written Articles (unpublished work)

You test what you can name: the role of dimensional nameability in testing hypotheses during category learning. July 31, 2015.

Measurement Matters: Effects of measurement error on statistical analysis involving one-sample t-tests. July 2014.

R Code for Measurement Theory: Introduction to programming related to item response theory. December 2014.

Group Performance: How does female attractiveness impact group performance in cognitive tasks? December 2014.

Adlerian Psychotherapy: A brief literature review from classic to contemporary. May 2014.

Workshops Attended

Games+Learning+Society 11 conference, University of Wisconsin, Madison. July 8 – 10, 2015.

Professional Communication for Graduate School and life (public speaking, interpersonal, and dealing with conflict.), University of Minnesota. July 15, 2014.

Overview of Classical Test Theory Day Workshop, given by Michael C. Rodriguez, University of Minnesota. October 24, 2013.

Awards and Honors

Predoctoral

Psychology Research Experience Program (PREP) Scholarship Recipient - University of Wisconsin, 2015 Cohort.

- 8 week intensive research summer program.
- Crash course learning of HTML, JavaScript, Python, and PHP.

McNair Scholarship Recipient - University of Minnesota, 2014 Cohort.

- 10 week intensive research summer program.
- Prepared academic portfolio and actively sought out graduate schools.
- Made strong bonds with faculty for future networking.
- Determined to add unique diverse perspective to academic literature.

CLA Dean's List: Spring 2013

Eagle Scout from The Boy Scouts of America, 2006

- Project: built a ravine run-off dam (dimensions 20 feet [long] by 3 feet [tall]).
- Organized and led a group of 20 participants over a two week period.
- Sourced construction materials, tools, and safety equipment.
- Developed and implemented unique rope crane to transport materials into restricted access building site.
- Built and maintained at Auto Club Park in Hennepin County, Minnesota.

Professional Membership/Affiliations

American Psychological Association: Student Member since 2014

Employment

Fall 2015: Cashier/Front End Customer Service, Fresh Thyme Farmer's Market, Bloomington MN.

Spring 2015: Research Assistant, FAST, University of Minnesota, Minneapolis.

2013 to 2015: Product Inventory Specialist, Liquor and Spirits, Richfield Liquor, Richfield MN.

Summer 2012: Independent Support Specialist, Adults with Disabilities, Opportunity Partners, Minnetonka MN.

2007 to 2011: Sales Representative, Hobby and Specialist items, Air Traffic Kites and Games, Bloomington MN.