

Krystal Starke

Curriculum Vitae

CONTACT INFORMATION

Linkedin:
<https://www.linkedin.com/in/krystalstarke/>

Phone: (716) 704-4383
E-mail: kstarke@buffalo.edu

EDUCATION

Ph.D. Curriculum, Instruction, and the Science of Learning Anticipated May 2023
The State University of New York at Buffalo, Buffalo, N.Y.
Department of Learning and Instruction
Advisor: Claire E. Cameron, Ph.D.
GPA: 4.0/4.0

B.S. Psychology May 2018
St. Bonaventure University, St. Bonaventure, N.Y.
Summa Cum Laude
Major GPA: 4.0/4.0, GPA: 3.987/4.0

EXPERTISE AREAS

Early childhood development, user experience research, play-based learning, special education, developmentally appropriate practice, mixed-methods research, neurodevelopmental disabilities

RESEARCH EXPERIENCE

Doctoral Research Assistant Fall 2021 - Present
Supervisor: Claire E. Cameron, Ph.D., Department of Learning and Instruction, The State University of New York at Buffalo

Project Title: HTKS-Kids: A feasibility study to gamify the Head-Toes-Knees-Shoulders behavioral self-regulation research assessment

- As part of a larger collaboration with Cognitive ToyBox, funded by The Bill & Melinda Gates Foundation, Krystal is helping to create a gamified, child-directed tablet assessment of executive functioning in early childhood.
- Krystal assists with all aspects of this parallel mixed-methods study design and administration, including but not limited to: iterative product development discussions, IRB preparation, participant recruitment, Qualtrics user experience survey preparation, child HTKS-R assessments, moderation of teacher user experience focus groups, analysis of qualitative data and quantitative data, and preparation of manuscript(s).

Doctoral Research Assistant

Fall 2019 – Winter 2021

Supervisor: Claire E. Cameron, Ph.D., Department of Learning and Instruction, The State University of New York at Buffalo

Project Title: Effects of infant egg consumption on child health and cognitive development in an educated sample

- Krystal conducted a literature review, assisted with the development of a comprehensive analytic plan for secondary data analysis, underwent training and ran analyses on SAS statistical software, trained undergraduate students on SAS statistical software, attended bi-weekly research team meetings for the duration of the project, and provided feedback and edits to all papers that are a part of the larger research team.

Doctoral Research Assistant

Fall 2020 – Fall 2021

Supervisor: X. Christine Wang, Ph.D., Department of Learning and Instruction, The State University of New York at Buffalo

Project Title: Fostering meaningful learning and connection for young children over Zoom

- Krystal conducted a literature review, transcribed video recordings, and completed the first draft of a manuscript for a practitioner journal, as well as later revisions.

Doctoral Research Assistant

Fall 2019

Supervisor: X. Christine Wang, Ph.D., Department of Learning and Instruction, The State University of New York at Buffalo

Project Title: Reading and (re)writing the world: Exploring critical pedagogy of place in early science and literacy learning

- Krystal conducted pre-testing assessments on listening comprehension with kindergarten students in a Buffalo Public School.

Project Co-Coordinator

Fall 2017 - Spring 2018

Supervisor: Gregory Privitera, Ph.D., Clinical Health Psychology Laboratory, St. Bonaventure University

Project Title: Understanding the relationship between emotion and health literacy on emotional responsiveness

- Krystal coordinated and conducted a research project as part of a larger collaboration with Dr. Murali Doraiswamy at Duke University Medical Center.
- Krystal obtained IRB approval, recruited participants, administered a battery of tests, analyzed quantitative data, and reported results via poster presentation and written manuscript.

Senior Capstone Research Project, Cognitive Psychology

Fall 2017

Supervisor: Althea Bauernschmidt, Ph.D., St. Bonaventure University

Project Title: Understanding the relationship between sleep quality and attentional processing in college students

- Krystal conducted a capstone research project presented to the psychology faculty as part of a defense stage of the degree requirements.
- Krystal obtained IRB approval, recruited participants, administered the Attention Network Test (ANT), analyzed quantitative data, and reported results via poster presentation and written manuscript.

Neurogenetics Research Trainee

Summer 2017

Supervisor: Paul Watkins, M.D., Ph.D., Kennedy Krieger Institute, Baltimore, Maryland

- Krystal attended seminars on various neurodevelopmental conditions; shadowed a child psychiatrist on a neurobehavioral inpatient unit.
- Krystal learned and utilized basic lab methods such as micropipetting, PCR, immunohistochemistry, cell culture, cell transformation, gel electrophoresis, and bioassays as part of a larger malignant glioma drug screening project, as well as an adrenoleukodystrophy drug screening project.

Undergraduate Research Assistant & Project Coordinator

Fall 2016 - Spring 2017

Supervisor: Gregory Privitera, Ph.D., Clinical Health Psychology Laboratory, St. Bonaventure University

- Krystal assisted in designing a study regarding the timing of reward on mood and exercise self-efficacy in adolescent girls.
- She assisted in project coordination including organizing the event at which the data was collected, data collection, and statistical analysis.

Undergraduate Research Assistant

Fall 2016 - Spring 2017

Supervisor: Darryl Mayeaux, Ph.D., Behavioral Neurosciences Laboratory, St. Bonaventure University*Project Title:* The effect of high fat and high sugar diets on hippocampal and olfactory bulb neurogenesis

- Krystal observed object recognition tasks and BrdU injections in hamsters, handled hamsters, cleaned cages, and assisted in other various lab responsibilities, perfused and dissected hamsters, sliced brains using a microtome, and mounted slices on slides and stained slices utilizing cresyl violet.

Service Learning Research Project

Fall 2014

Supervisor: Thomas Scheira, Ph.D., Niagara University*Site:* Niagara Cerebral Palsy, Niagara Falls, NY

- Krystal completed 34 hours of child studies and research on a holistic approach to childhood development and motivation.
- She conducted a case study on a child with developmental delays.

CHILD-CENTERED CLINICAL EXPERIENCES

Early Childhood Research Center

Spring 2020 - Present

Supervisor: Keely Benson, Ph.D., Buffalo, NY*Role:* Lead Teacher & Researcher

- Krystal co-leads a student-centered, play-based preschool classroom of students from ages 18 months through five years old.
- Krystal collects anecdotal and photographic data on child development progression daily, adapts lesson plans to meet diverse student needs regularly, communicates with parents daily regarding student progress and/or concerns, and creates student portfolios at the close of each semester displaying growth in motor, cognitive, social-emotional, and language development. She also mentors pre-service teacher interns.

GiGi's Playhouse: A Down Syndrome Achievement Center

Summer 2020 - Present

Supervisor: Emily Mondschein*Role:* Program Lead

- Krystal designed, developed, and leads a child-directed and play-based program, Play to Learn, for preschool and school-aged children. The program is evolving through action research to meet the needs of the community monthly.
- Krystal has also led LMNOP, a program for children birth through five that fosters language and communication development through music and play.
- Krystal designed an Ed.M. course facilitating literacy tutoring at the playhouse.
- Krystal collects observational data on child progress, adapting programs to match student needs regularly.

In-Home Autism Care Provider

Fall 2020 – Summer 2021

- Krystal provided regular child care in the home to an eight year old girl with autism spectrum disorder and a six year old typically developing boy.
- Krystal created behavior plans for use within the home based on observational data collection and IEP goals.
- Krystal assisted with virtual schooling and tele-therapy sessions for both children.

The Summit Center - Summit Academy

December 2018 – August 2019

Supervisor: Amanda Chapman, Getzville, NY*Role:* Assistant Teacher

- Krystal supported the lead teacher of an 8:1:2 integrated kinder-ready preschool classroom for autistic children.
- Krystal collected qualitative and quantitative data on embedded trials for student academic programs, graphed collected data regularly to determine when students were ready to advance in programs, completed all necessary paperwork, including tracking IEP goals and incident reports, and attended regular meetings regarding the progress of assigned students.

Riverview School

Summer 2018

Supervisor: Chris Barnatchez, East Sandwich, MA*Role:* Dorm Coordinator

- Krystal provided a safe and nurturing living environment for students with complex learning, language, cognitive disabilities in an international boarding school summer program
- Krystal developed and implemented dormitory and individual student routines and activities, established and maintained effective and consistent communication with parents or guardians of students, completed all documentation regarding events between students, and used positive reinforcement and proactive strategies with students

Teddy Bear Day Care

August 2017 - April 2018

Supervisor: Jennifer Higby, Allegany, NY*Role:* Assistant Teacher

- Krystal cared for children 6 weeks-12 years old, specializing with infant and toddler care.

The Gow School Summer Program

Summer 2016 and 2017

Supervisor: Matt Fisher, The Gow School, South Wales, NY*Role:* Group Leader

- Krystal supervised 2 counselors and 20 camper-students in a residential, international, and educational summer program for children with ADHD, dyslexia, and other language based learning disabilities.
- Krystal organized and led recreational activities fostering team-building & communication skills, and created a community within the residence hall.

Duck Duck Goose Child Care Center

September 2013 - January 2017

Supervisor: Paula Von Derau, East Aurora, NY*Role:* Assistant Teacher

- Krystal cared for children 6 weeks-12 years old, specializing with 3-4 year old children.

DoodleBugs! Children's Learning Academy

September 2015 - January 2016

Supervisor: Colleen Nolan, West Amherst, NY*Role:* Assistant Teacher

- Krystal cared for children 6 weeks-12 years old, specializing with toddlers and 3 year old children.

Elite Heat All Stars Cheerleading

2013 - 2015

Supervisor: Laura Voigt, Amherst, NY*Role:* Coach

- Krystal enhanced her communication, conflict resolution, problem solving, and leadership skills, specializing with 8-12 year old girls.

Tri-Town Recreation Day Camp

Summer 2012 - 2015

Supervisor: Bree Bonn, Elma, NY*Role:* Counselor

- Krystal worked with children ages 5-15 in various day camp activities, such as sports and games, arts and crafts, swimming, cooking, and team building.
- Krystal specialized with children 5-7 years old.

PROFESSIONAL DEVELOPMENT

Invited Presentation: Fisher-Price®, East Aurora NY

July 2021

- Krystal presented to the Fisher-Price® Play Lab, a child development research team, the key takeaways from her research fellowship at the Strong National Museum of Play in Rochester, NY. Topics included but were not limited to: the science of learning in early childhood autism spectrum disorders, possible implications for select Fisher-Price brands, Thomas & Friends™ and Little People®, and future directions for research in this area.
- [Blog post summary available here.](#)

Media Appearance: UBNOW News and views for UB faculty and staff August 2021
Title: “New partnership provides future teachers with hands-on experience with special needs students”

- Krystal disseminated information to the public about the new experiential learning program for future teachers at UB that she co-developed.
- [Story available here.](#)

Science of Public Engagement & Communication, University at Buffalo Fall 2019 - Present
Role: Active Member & Presenter

- Krystal meets with peers to share statistics, academic writing, and funding resources.
- Krystal practices conference and interview talks with peers and faculty.

Graduate Assistant for the Dean of Undergraduate Education Fall 2019
Supervisor: Krista Hanypsiak Krause, The State University of New York at Buffalo

- Krystal completed literature reviews on higher education first-year retention strategies and pedagogical approaches in certain domains, completed personal outreach efforts to first-year students deemed at-risk by their professors in gateway courses, an organized and maintained large databases of administrative files.

PUBLICATIONS

Manuscripts in Progress:

- Cameron, C. E., **Starke, K.**, Rideout, T., Choudary, D., Lehman, H., Oken, E., Rifas-Shiman, S. L., & Wen, X. (In progress). Associations of infant egg consumption with childhood cognitive and social development in an educated sample.
- Wang, X. C., Benson, K., **Starke, K.**, & Eggleston, C. (Under review). “Real worms and gummy worms!”: Fostering meaningful learning and connection for young children over Zoom.
- Mi, B., Liu, H., Wang, Y., Small, H., Surguy-Bowers, A., Rideout, T. C., Cameron, C. E., Lehman, H., **Starke, K.** & Wen, X. (Under Review). Infant age at egg introduction and malnutrition-related child growth outcomes in a U.S. cohort.

Research Briefs:

- O’Neill, J., Cameron, C. E., Leone, L., Orom, H., with **Starke K.** (2021). [Financial scarcity is indirectly related to multiple aspects of executive function through stress and the strength of association depends on childhood poverty.](#) GSE research brief.

POSTER PRESENTATIONS

Starke, K., Bilger, A., Welling, D., & Privitera, G. (2018, March). *The relationship between literacy of emotion on emotional responsiveness to comfort foods.* Poster presented at the Eastern Psychological Association meeting, Philadelphia, PA.

Starke, K. (2018, May). *Understanding the relationship between sleep quality and attentional processing in college students.* Poster presented and defended at St. Bonaventure University Psychology Department, St. Bonaventure, NY.

TEACHING EXPERIENCE

Student Instructor for Experiential Learning Course Spring & Summer 2021

Supervisor: Claire Cameron, Ph.D., Department of Learning and Instruction, The State University of New York at Buffalo

- Krystal fostered a university and community partnership between SUNY Buffalo and GiGi's Playhouse of Buffalo by developing an experiential learning course for pre-service teachers and other Ed.M. students.
- Krystal designed the syllabus and the course, leading biweekly discussions on assigned reading materials about learning and development in children with Down syndrome and similar disabilities.

Supplemental Instruction Leader for Psych Research: Stats and Methods II Spring 2018

Supervisors: Gregory Privitera, Ph.D. & Althea Bauernschmidt, Ph.D., St. Bonaventure University

- Krystal conducted SI sessions weekly including reteaching portions of lecture, designing learning activities for students that helped foster good study habits, answered questions, and reviewed homework and potential test questions.

Teaching Assistant, Psychological Research: Statistics and Methods I Fall 2017

Supervisors: Gregory Privitera, Ph.D. and Althea Bauernschmidt, Ph.D., St. Bonaventure University

- Krystal maintained regular office hours, worked with students individually and in small groups, graded student papers, and proctored exams.

Tutor, Psychological Research: Statistics and Methods I Fall 2017

Site: St. Bonaventure University Student Success Center

- Krystal attended and designed curriculum for regular tutoring sessions.

RELATED SKILLS AND TRAINING

- Technical Proficiency in Microsoft Office Suite, incl. Word, Excel, and PowerPoint for Mac and Windows
- Technical Proficiency in IBM SPSS Statistics Software for Mac and Windows
- Technical Proficiency in SAS Statistics Software for Mac and Windows
- Technical Proficiency in EpiData Software for Mac and Windows
- Collaborative Institutional Training Initiative (CITI) IRB Certification
- Good Research Practice Training (GRP) for Clinical Researchers
- Certification, NYSTCE Assessment of Teaching Assistant Skills (ATAS), Received 05/2019
- Certification, CPR and AED, American Heart Association, Current through 08/2022
- Certification, Strategies for Crisis Intervention and Prevention- Revised (SCIP-R), Current through 12/2020
- New York State Office of Children and Family Services, *Identifying and Responding to Anaphylaxis: Elijah's Law*, Completed 08/2021

- New York State Office of Children and Family Services, *Prevention and Identification of Brain Injuries, Including Abusive Head Trauma*, Completed 03/2019
- New York State Office of Children and Family Services, *Foundations in Health and Safety E-Learning*, Completed Fall 2017
- New York State Dignity for All Students Act (DASA) Training, Completed 03/2019
- New York State Safe Schools Against Violence in Education (SAVE), Completed 02/2019
- New York State Mandated Reporter Training, Completed Fall 2015
- NIH Office of Extramural Research, *Protecting Human Participants Course*, Completed Fall 2016
- Completed 20 observation hours in a third-grade integrated classroom, *Niagara Street School*, Niagara Falls, NY, Spring 2015
- Basic proficiency in French

PROFESSIONAL AFFILIATIONS

National Association for the Education of Young Children (NAEYC) Member, since Spring 2021

Women in Toys Member, since Spring 2021

Eastern Psychological Association Associate Member, since Fall 2017

Psi Chi International Psychological Honor Society Member, since Spring 2017

HONORS AND AWARDS

G. Rollie Adams Research Fellowship, The Strong National Museum of Play; \$1,000, May 2021

Dean's Scholarship for Academic and Inclusive Excellence, \$10,000, Fall 2019 – Spring 2020

Alpha Gamma Psi Award Recipient, Spring 2018

General Excellence Award for a Transfer Student Honorable Mention, Spring 2018

Student of Success Award Recipient, April 2018

Psychology Department Scholarship and Mentorship Recipient, \$1,000, 2017-2018

Dean's List Member, Fall 2014-Spring 2018

Jean and Brian Hickey Mental Health Scholarship Recipient, \$1,500 per semester, 2016-2018

NYS Scholarship for Academic Excellence Recipient, \$500 per semester, 2014-2018

Elly's Angels Community Outreach Award Recipient, 2014