Curriculum Vitae
Emma G. Cunningham, M.S.

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RESEARCH INTERESTS

Cognitive Skill Transfer
Brain Plasticity & Learning
Cognitive Psychology
Cognitive Training and STEM education
Cognitive Effects of Video Games
Human Computer Interaction & Human Robot Interaction

EDUCATION

Current Position
Pursuing PhD

University of Wisconsin, Madison, WI
PhD in Psychology – Research focused on training and transfer of cognitive skills
    Advised by Professor C. Shawn Green and Professor Daphné Bavelier

Master's Degree
Awarded in 2023

University of Wisconsin, Madison, WI
Master's degree in Psychology – awarded in pursuance of PhD after defense of Master's thesis project titled *"Planning Complexity: Examining Correlations Between Planning Skills and Mini Games"*

Bachelors of Science
Awarded in 2021

University of California, Santa Cruz, CA
Cognitive Science B.S. – Emphasis in Human Computer Interactions and Artificial Intelligence
    Graduated Summa Cum Laude with a 4.0 GPA

High School Diploma
Awarded in 2017

Placer High School, Auburn, CA
    Graduated Valedictorian with a 4.3 GPA

RESEARCH EXPERIENCE

August 2021-Present

Graduate Student Research Fellow – Department of Psychology, UW Madison
Produce original research projects, publications, and presentations in addition to mentoring undergraduate students and supporting larger lab research projects

April 2020 - August 2021

Graduate Student Research Associate – Brain and Learning Lab, UNIGE, Faculty of Science and Education, Geneva, Switzerland
PI: Professor Daphné Bavelier
-        Contributed to a meta-analysis the impact of action video games on perceptual, attentional, and cognitive skills
-        Co-authored a book chapter on video games impact on high cognitive function (See Publications)

	- Co-collaborated on meta-analysis on computerized reading training for children and action video game training paper. - Contributed to a review of literature on computerized reading training for children (See Publications)
December 2019 – June 2021	**Lab Manager** – HRI Lab, UCSC Computational Media Department, Santa Cruz, CA PI: Professor Leila Takayama Organized lab logistics and members and oversaw all ongoing projects.
March 2019 – June 2021	**Research Assistant** – HRI Lab, UCSC Computational Media Department, Santa Cruz, CA PI: Professor Leila Takayama Conducted studies on the transfer effects of video games on robot operation skills.
March 2020 – October 2020	**UX Project Lead** – Silicon Valley Social Innovation Lab, Open Minds, Silicon Valley, Menlo Park, CA PI: Matthew Jacobs Lead User Experience research project for STEM e-learning platform ensuring accessibility for students with disabilities.
September 2019 – December 2019	**Research Assistant** – High Level Perception Lab, UCSC Psychology Department Santa Cruz, CA PI: Professor Nicholas Davidenko Conducted studies on illusory motion perception in Virtual Reality.
September 2018 – March 2019	**Research Assistant** – Early Social Innovation Lab, UCSC Psychology Department Santa Cruz, CA PI: Professor Audun Dahl Conducted studies on the development of helping behaviors in toddlers. Produced coding scheme in collaboration with PI.

PUBLICATIONS

June 2023 *(Book Chapter)*	**Cunningham, E. G.**, Green, C. S. (2023). "Cognitive Skills Acquired from Video Games." In Matthew Powers (Ed.), Oxford Research Encyclopedia of Communication. New York and Oxford: Oxford University Press.
October 2022 *(Journal Article)*	Moortgat-Pick, A., So, P., Sack, M. J., **Cunningham, E. G**., Hughes B. J., Adamczyk, A., Sarabakha, A., Takayama, L., Haddadin, S. (2022). A-RIFT: Visual Substitution of Force Feedback for a Zero-Cost Interface in Telemanipulation. In *2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. IEEE.
October 2021 *(Journal Article)*	Pasqualotto, A., Zanichelli, B., Marolo, M., **Cunningham, E.**, & Venuti, P. (2021). [The impact of computerized executive function training on children's reading outcomes: A review of literature]. *DIS*, 341.

May 2021 *(Book Chapter)*	Parong, J., Holman, C., **Cunningham, E.**, Green, C. S., Bavelier, D., (2021). Video Games and Higher Cognition. In Harold F. O'Neil, Eva L. Baker, Ray S. Perez, & Stephen E. Watson (Eds.), *Using Cognitive and Affective Metrics in Education-Based Simulations and Games*. Routledge/Taylor & Francis: Matt Friberg, Education Editor, p 3-30.

PRESENTATIONS

November 2023 *(Poster Presentation)*	**Cunningham, E. G.**, Anthony, E. L., Kasten, L., Yüksel, E. M., Green, C. S.. Individual Differences in Learning a Complex Visuo-Motor Task, (2023). *Psychonomic Society Annual Conference.* San Francisco, CA.
November 2023 *(Invited Talk)*	**Cunningham, E. G.**. Individual Differences in Learning a Complex Visuo-Motor Task, (2023). *Department of Psychology Cognition and Cognitive Neuroscience Proseminar.* University of Wisconsin-Madison.
May 2023 *(Poster Presentation)*	**Cunningham, E. G.**, Bavelier, D., Green, C. S.. Minimal Correlations Found between Multidisciplinary Metrics of Planning and Planning Related Games, (2023). *Association for Psychological Science Annual Conference Proceedings.* Washington D.C.
October 2022 *(Invited Talk)*	**Cunningham, E. G.**. Planning Complexity: Examining Correlations Between Planning Skills and Selected Mini Games, (2022). *Annual Department of Psychology First Year Project Symposium.* University of Wisconsin-Madison.

IN PREPARATION

Submitting for review in January 2024	Pasqualotto, A., **Cunningham, E. G.,** Holman, C., Bediou, B., Bavelier, D. (in Prep). Meta-Analysis on Computerized Approaches to Enhance Reading in Children.
Submitting for review in January 2024	Joessel, F., **Cunningham, E. G.,** Green, C.S., (Preregistered). Expectancy Effect on Visual Attention Performance After Playing a Puzzle Game (Replication Study)

AWARDS

Dean's Honors list – All terms – *UW Madison*
Dean's Honors List – All terms – *UCSC*
Schwab Rosenhaus Scholar
Walsh Family Scholarship
Undergraduate Research College Scholars Program – *UCSC*
Auburn Kiwanis Club Academic Achievement Scholarship
Soroptimist Ruth Johnston Scholarship Award
Charles and Fannie Keena Scholarship Award
Department Student of the Year Award: English – *Placer High School*
Department Student of the Year Award: Science – *Placer High School*

SKILLS

Research Skills – Literature review, database literature search using search terms, literature analysis for meta-analysis, video data coding, coding scheme creation

Technical Skills – R, Data Visualization, SPSS, Excel/Sheets, several video data coding softwares, some Python, some Java, some Matlab

Personal Attributes – Team player, Self-directed, Organized, Creative problem solver, Efficient, Precise, Hard-working, Strong leadership skills

Language – Fluent in English, intermediate Spanish, familiar with French

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OTHER EXPERIENCE

August 2022-December 2023

Graduate Student Teaching Assistant – UW Madison Psychology Department
Provided teaching support for Professors and instructors in a range of courses from Graduate level statistics to introductory psychology for undergraduates

March 2023 – August 2023

Vocational Coach – Feist Vocational Counseling and Placement, Madison, WI
Provided adaptive and individualized on-site job coaching and support for individuals with developmental or physical disabilities

September 2017 – June 2021

Library Circulation Desk Assistant – UCSC Library, Santa Cruz, CA
Attended the needs of patrons and optimized their experience through understanding a myriad of library processes. Gained the ability to recognize and accomplish tasks in a self-directed fashion

September 2018 – March 2020

Video Game Lab Technician – UCSC Games & Playable Media Department, Santa Cruz, CA
Maintain systems within the UCSC Library Video Game Lab.

January 2019 – June 2021

Notetaker – UCSC Disability Resource Center, Santa Cruz, CA
Provide the crucial service of taking and distributing class notes to students with disabilities that prevent them from notetaking

September 2019 – December 2019

Peer Tutor for Upper Division Psychology Class – UCSC Learning Support Services, Santa Cruz, CA
Provided additional instructional support to a group of consistent students for a class on sensation and perception, including lesson planning, creating teaching resources, and exam preparation.