

# Bre-Anna K. Owusu

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## TEACHING & RESEARCH AREAS OF INTEREST

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Attention | Child Development | Cognitive Science | Language | Memory | Music Cognition | Psychometry

## EDUCATION & TRAINING

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- **PhD, Neuroscience** 2018 – 2025  
McMaster University, Hamilton, Canada *Advisor:* Dr. Elisabet Service
- **Master of Science, Cognitive Neuroscience and Research Methods in Psychology** 2016 – 2017  
Swansea University, Swansea, Wales *Advisors:* Drs. Toby Lloyd-d Jones & Hana Burianová
- **Bachelor of Science Honours, Psychology and Exceptionality in Human Learning** 2011 – 2015  
University of Toronto, Mississauga, Canada

## RESEARCH & CONFERENCE FUNDING

- Conference Funding, Rac(e)ing Towards Inclusion in Academia and Industry *Institutional* \$3,250 2022
- International Merit Postgraduate Scholarship, Swansea University *International* \$4,000 2016 – 2017
- International Postgraduate Taught Excellence Scholarship, Swansea University *International* \$4,000 2016 – 2017

## AWARDS & HONOURS

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- J. Frank Yates Student Conference Award *International* \$1,000 2023
- Psychology, Neuroscience & Behaviour Graduate Research Day, Best Data Blitz Presentation *Institutional* \$75 2023
- Umoja Award, African Caribbean Faculty Association *Institutional* \$1,000 2022
- McMaster University Faculty of Health Sciences Plenary Graduate Student Leadership Award *Institutional* 2022
- McMaster University Faculty of Health Sciences Plenary Teaching Assistant Excellence Award *Institutional* 2021
- McMaster Student University Teaching Assistant of the Year Award\* *Institutional* 2021  
\* Ranked Top 5
- McMaster University Faculty of Health Sciences Graduate Plenary PechaKucha Competition\* *Institutional* 2021  
\*Ranked Top 3
- University of Toronto Admission Scholarship *Institutional* \$1,500 2011

## PUBLICATIONS

- **Owusu, B. K.,** & Burianová, H. (2020). Transcranial direct current stimulation improves novel word recall in healthy adults. *Journal of Neurolinguistics*, 53, 1–9.
- Agrawal, T., Cui, A-X., Lense, M. D., Lopez, G., **Owusu, B. K.,** Schachner, A., Slevc, L. R., Swaminathan, S., & Vuvan., D. T. (2024). From Commitment to Action: Assessing the Impact of New Mentorship Programs to Promote Equity in the Society for Music Perception and Cognition. *Music Perception*, 41(4), 233–239.

### Chapters in Books

- **Owusu, B.,** Dhanoa, J., Hylton, A., Ing, E., Mappanasingam, A., Patel, A., Pavlakos, R., & deBie., A. (2022). Student Voices from the Classroom, Concluding reflections on cultivating an environment where learning deeply matters. In A. de Bie, S. Baptiste, C.A. Grisé (Eds.). *Where learning deeply matters: Reflections on the past, present, and future of teaching at McMaster University*.
- Mighty, J., Braithwaite, A., Deng, J., Huang, S., Leacock, B., Lopes, V., MacDonald, M., Pérez, R. N., **Owusu, B.,** & Toulouse, P. (2022). Misalignment, Negotiation, and Compromise: The Challenging Process of Pursuing Equity, Diversity, and Inclusion in Higher Education. Invited chapter in J. Christensen Hughes, J. Mighty, D. Stockley and L. Young (Eds.). *Taking Stock 2.0: Transforming Teaching and Learning in Higher Education*.

### Articles in Revision

- **Owusu, B.,** Cannon, J., Pape, D., & Service, E. (in revision). Rhythmic priming may enhance verbal working memory in musicians and non-musicians. *Memory & Cognition*.

### Artistic Contributions

**Curator,** *Racial Views*. KUNSTMATRIX Virtual Exhibition.

Contributors included: Harmata Aboubakar, Mariama Henry, Aleks Raymond, Paryse Reed, Amy Schranz, Selina Shi. [Exhibited artwork at KUNSTMATRIX](#)

## ACCEPTED CONFERENCE POSTERS & PRESENTATIONS *student trainees are underlined*

### Published Abstracts

- **Owusu, B.** (2021). The He(ART) of Dyslexia: How can listening to music improve verbal memory? Talk, NeuroSymposium. *McGill Journal of Medicine*, 20(1).

### Conference Presentations

- **Owusu, B.,** & Service, E. (July 2023). Priming with musical rhythm enhances verbal working memory. Talk, Canadian Society for Brain, Behaviour, and Cognitive Science, Guelph, ON.
- **Owusu, B.,** \* & Service, E. (Apr 2023). Let the Music Play: The beneficial effects of musical rhythms on verbal working memory. Talk, Psychology, Neuroscience & Behaviour Graduate Research Day, Hamilton, ON.

\* Psychology, Neuroscience & Behaviour conference award, Best Data Blitz Presentation

- **Owusu, B., Alnahhar, D., Campbell, J., & Service, E.** (Apr 2023). Let the Music Play: The beneficial effects of musical rhythms on verbal working memory. Poster, Student Research Day, Hamilton, ON.
- **Owusu, B., & Service, E.** (Nov 2022). Can rhythmic stimulation benefit verbal memory? Poster, NeuroMusic 18<sup>th</sup> Annual Conference, Hamilton, ON.
- **Owusu, B., & Service, E.** (Oct 2022). Rhythmic stimulation boosts memory for new word forms in children. Poster, Mental Lexicon, Niagara, ON.
- **Homiar, A., Owusu, B., & Service, E.** (Apr 2022). The influence of musical training on visuospatial working memory processing in musicians with dyslexia. Poster, Student Research Day, Hamilton, ON.
- **Owusu, B., & Service, E.** (Nov 2021). Can musical rhythm primes boost memory for new word forms in dyslexia? Poster, Psychonomic Society 62<sup>nd</sup> Annual Meeting, Virtual Meeting.
- **Owusu, B.** (May 2021). Music and Dyslexia: Please don't stop the music. Talk, Black Graduate Student Association, Virtual Meeting.
- **Boguslavski, L., & Owusu, B.** (Apr 2021). A plan for combining musical training and action video games as a therapeutic tool for dyslexia. Poster, Student Research Day, Virtual Meeting.
- **Owusu, B., & Service, E.** (Apr 2021). Music and Memory—Tunes for dyslexia. Talk, Student Research Day, Virtual Meeting.

## OTHER PRESENTATIONS

- **Teaching Assistant Welcome.** (Sept 2022). Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching. Panelist on *Experienced TA Panel Discussion*. Hamilton, ON.
- **GenSTEM Conference.** (Dec 2021). WISE (McMaster Women in Science and Engineering). Youth outreach workshop co-presenter. Virtual Meeting.
- **Three Minute Thesis (3MT).** (June 2021). The He(ART) of Dyslexia: How can listening to music improve verbal memory? 6<sup>th</sup> edition of NeuroSymposium. Virtual Meeting.
- **Plenary Presentation\*.** (May 2021). [The Cocktail Party Effect: Mixing rhythms for dyslexia](#). Virtual Meeting.  
\* *Ranked Top 3 for best PechaKucha Presentation*
- **GRADFlix Competition\*.** (March 2021). [Syncing' to the Beat of your Own Brain](#). McMaster University.  
\* *Finalist*

## TEACHING EXPERIENCE

### Course Instructor

- Cognitive Neuroscience of Language (LINGUIST/PSYCH 3NL3) | McMaster University | Jan 2026 – Present  
*Attendance: 75 undergraduate students*
- Child Language Acquisition (LINGUIST/PSYCH 3C03) | McMaster University | Sep 2025 – Dec 2025  
*Attendance: 100 undergraduate students (online course)*
- Child Development (PSYCH 2AA3) | McMaster University | *Attendance: 87* | Jun 2025 – Aug 2025

*undergraduate students*

- Essential Theory in Teaching and Learning (EDUCATN 640) | McMaster University | Attendance: 35 graduates, postdocs, faculty, and staff Sep 2023 – Dec 2023
- Millennials, Music & the Mind (EXPLORE 3IE1) | McMaster University | Attendance: 13 undergraduate students Sep 2019 – Nov 2019

Guest Lecturer

- Applied/Advanced Placement | Topic: Supervisor Interviews Oct 2020–2022
- Applied/Advanced Placement | Topic: LinkedIn Networking Jan 2018–2022
- Applied/Advanced Placement | Topic: Mind Maps Oct/Feb 2018–2022

Chapter Presentation

- Neuroscience NEUROSCI 700 | Attendance: 20 graduate students Topic: Language, Thought, Affect and Learning Nov 2018

Teaching Assistant

- Independent Study LIFESCI 4A03 | Instructor: Dr. Sunita Nadella Sep 2018 – Apr 2022
  - Research Practicum LIFESCI 3RP3 | Instructor: Dr. Sunita Nadella Sep 2018 – Apr 2022
  - Independent Project LIFESCI 4B09 | Instructor: Dr. Sunita Nadella Sep 2018 – Apr 2022
  - Independent Thesis LIFESCI 4C12/D15 | Instructor: Dr. Sunita Nadella Sep 2018 – Apr 2022
  - Applied/Advanced Placement\* LIFESCI 3EP3/4EP6 | Instructor: Dr. Sunita Nadella Sep 2018 – Apr 2022
- \* Awarded the Faculty of Health Sciences Plenary Teaching Assistant Excellence Award
- \* Awarded Rank of top 5 McMaster Student University Teaching Assistant of the Year Award

**MENTORSHIP & CO-SUPERVISION**Graduate Mentorship

- Jonathan Lieberman, Neuroscience Sep 2021 – Apr 2022  
Health Sciences Mentorship Program (HSMP)
- Olivia Turner, Neuroscience Sep 2020 – Apr 2021  
Health Sciences Mentorship Program (HSMP)

Undergraduate Mentorship

- Renisha Rodriques, Life Sciences Sep 2021 – Apr 2022  
Black Student Mentorship Program (BSMP)
- Hephzibah Ali, Health Sciences Sep 2020 – Apr 2021  
Black Student Mentorship Program (BSMP)

Supervised Undergraduate Independent Project Students

- Ava Homiar, Life Sciences | Topic: Temporal processing in dyslexic musicians Jan 2022 – Apr 2022
- Lior Boguslavski, Life Sciences | Topic: Video game music and dyslexia Jan 2021 – Apr 2021
- Conan Hu, Psychology, Neuroscience & Behaviour | Topic: Rhythm and

### Co-Supervised Research Assistants

• Sophia De Mesa	Feb 2023 – Feb 2024
• Chiara Malatesta	Sep 2023 – Dec 2023
• Dana Alnahhar, Jacquelyn Campbell	Jan 2023 – Apr 2023
• Ava Homiar, Jacquelyn Campbell	Jan 2022 – Apr 2022
• Abigail Almeida, Ava Homiar	Jun 2021 – Aug 2021
• Anna Lui, Conan Hu, Daniela Andreadis, Jacquelyn Campbell, Lior Boguslavski, Louise Huang	Sep 2020 – Apr 2021

## EDITORIAL ACTIVITIES

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### Editorial Board

• Member   <i>ARiEAL Research Magazine</i>	May 2023 – Sep 2023
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### Peer Reviewing

• 50 Years of Stories   MacPherson Institute for Leadership, Innovation and Excellence in Teaching	2021 – 2022
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## SERVICE & COMMITTEE MEMBERSHIPS

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### International

• <b>Mentorship Committee Member</b> Society for Music, Perception and Cognition (SMPC)	2021 – 2023
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### National

• <b>Conference Chair and Organizer</b> Rac(e)ing Towards Inclusion in Academia and Industry	2021 – 2022
• <b>Research Assistant &amp; <a href="#">Webinar Moderator</a>, EDI Task Force</b> Society for Teaching and Learning in Higher Education (STLHE)	2021 – 2022
• <b>Member &amp; Reading Tutor</b> Learning Disabilities Association of Ontario (LDAO)	2020 – 2021

### Institutional

• <b>Vice President</b> African Caribbean Graduate Student Association (ACGSA), McMaster University	2021 – 2022
• <b>Adjudicator</b> Life Sciences Interdisciplinary Research Symposia, McMaster University	2018 – 2022

### Departmental

• <b>Scientific Advisory Committee (SAC) Working Group Member</b> ARiEAL Research Centre	2021
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## WORK EXPERIENCE

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- **Psychometrist** | PeakMinds Psychology Services 2025 – present
- **Educational Research Assistant/Student Partner** | Paul MacPherson Institute for Leadership, Innovation and Excellence in Teaching, McMaster University, Hamilton, Canada 2021 – 2023
- **EEG Research Assistant** | Language, Memory & Brain Lab, McMaster University, Hamilton, Canada 2021
- Advisor:** Dr. John Connolly
- **tDCS Research Intern** | College of Human and Health Sciences, Swansea University, Swansea, Wales 2017
- Advisor:** Dr. Hana Burianová
- **Research Assistant** | Infant and Child Studies Centre, Department of Psychology, University of Toronto, Mississauga, Canada 2015 – 2016
- Advisors:** Drs. Sandra Trehub & Laura Cirelli
- **Piano Instructor** | Primer levels to Professional 2008 – present

## PROFESSIONAL DEVELOPMENT & TRAINING

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- Teaching and Learning Scholar Certificate of Completion (100 hours) | Paul MacPherson Institute for Learning, Innovation and Excellence in Teaching 2022
- Teaching and Learning Foundations Certificate of Completion (36 hours) | Paul MacPherson Institute for Learning, Innovation and Excellence in Teaching 2022
- Instructional Skills Workshop (30 hours) | Paul MacPherson Institute for Learning, Innovation and Excellence in Teaching 2022
- TCPS 2: CORE Certificate 2021
- Certified Peer Reviewer Course | Elsevier Research Academy 2020
- R Programming Workshop 2016

## PROFESSIONAL AFFILIATIONS

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- Society of Teaching, and Learning in Higher Education | Society of Music, Perception and Cognition  
| Canadian Open Parkinson Network

## TECHNICAL EXPERTISE

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- Hardware: tDCS systems
- Software: Audacity, E-Prime, Jamovi, PsychoPy, SPSS, SuperLab,