

# ZACHARY COLE

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## EDUCATION

- Ph. D. in Psychology, Concentration in Neuroscience  
University of Nebraska-Lincoln, Lincoln, NE [Expected December 2023]
- M. A. in Cognitive and Social Processes  
Ball State University, Muncie, IN (May 2016)
- Graduate Certificate in Institutional Research  
Ball State University, Muncie, IN (May 2016)
- B. S. in Psychology  
Washington State University, Pullman, WA (December 2013)
- B. S. in Kinesiology  
Washington State University, Pullman, WA (May 2011)
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## PUBLICATIONS

- Cole, Z. J.**, Lintz, E. N., & Johnson, M. R. (Under Review). Probability manipulations can modulate but not reverse reflective inhibition-of-return effects. <https://doi.org/10.31234/osf.io/cs5q3>
- Cole, Z. J.**, Kuntzelman, K. M., Dodd, M. D., & Johnson, M. R. (Under Review). Convolutional neural networks can decode eye movement data: A black box approach to predicting task from eye movements. <https://doi.org/10.31234/osf.io/5a6jm>
- Butler, D. L., **Cole, Z. J.**, & Ward, R. (Under Review). Concept maps, outlines, and lists: Three ways to study and take exams. *Scholarship of Teaching and Learning in Psychology*.
- Botvinik-Nezer, R., Holzmeuster, F., Camerer, C. F., . . . , **Cole, Z. J.**, . . . , Nichols, T. E., Poldrack, R. A., & Schonberg, T. (2020). Variability in the analysis of a single neuroimaging dataset by many teams. *Nature*, 582, p. 84-88. DOI: <https://doi.org/10.1038/s41586-020-2314-9>
- Cole, Z. J.** & Butler, D. L. (2020). Disentangling the effects of study time and study strategy on undergraduate test performance. *Psi Chi Journal of Psychological Research*, 25(2), 110-120. DOI: <https://doi.org/10.24839/2325-7342.JN25.2.110>
- Cole, Z. J.** & Ritchey, K. A. (2020). Show me the meaning! The contextual relevance of images influences recall and understanding of multimedia RSVP paragraphs. *Journal of Cognitive Psychology*. DOI: <https://doi.org/10.1080/20445911.2020.1711767>
- Cole, Z. J.** (2016). *Effects of study time and levels of processing on test performance* (Master's thesis). Ball State University Libraries: Cardinal Scholar. Can be retrieved online at <http://cardinalscholar.bsu.edu/handle/123456789/200173>
- Cole, Z. J.**, & Maeda, H. (2015). The effects of music preference and gender on endurance running speed. *Journal of Perceptual and Motor Skills*, 121(2), 1-9. DOI: <https://doi.org/10.2466/06.pms.121c20x9>
- Non-refereed Journals**
- Cole, Z. J.** (2015). Strategies for developing purpose in your research. *Association for Psychological Science Observer*, 28(5), 40-41. Can be retrieved online at <http://www.psychologicalscience.org/index.php/publications/observer/2015/may-june-15/strategies-for-developing-purpose-in-your-research.html>

### Manuscripts in Preparation

- Cole, Z. J.** & Johnson, M. R. (In Prep). Perceptual and reflective attentional competition: An fMRI study.
- Cole, Z. J.** & Bukach, C., & Davis, L. (In Prep). I see what you're saying: Native language phoneme-grapheme mappings affect second language perception and production.
- Butler, D. L., **Cole, Z. J.**, & Montoye, A. H. (In Prep). Why people get physical activity trackers, what they think the effects of using them are, and why do they quit using them?

### Abstracts

- Cole, Z. J.**, Lintz, E. N., & Johnson, M. R. (2020). Attentional competition in perceptual and reflective attention: An fMRI study. *Journal of Vision*, 20(11), p. 1730. DOI: <https://doi.org/10.1167/jov.20.11.1730>
- Cole, Z. J.**, Kuntzelman, K. M., Dodd, M. D., & Johnson, M. R. (2019). I see what you did there: Deep learning algorithms can classify cognitive tasks from images of eye tracking data. *Journal of Vision*, 19(10), p. 306b. DOI: <https://doi.org/10.1167/19.10.306b>
- Olson, C., Luu, G., **Cole, Z. J.**, Ding, J., Peissig, J. J., & Bukach, C. M. (2017). Background check: Perceptual grouping cues reduce novice holistic processing of birds. *Journal of Vision*, 17(10), p. 1252. DOI: <https://doi.org/10.1167/17.10.1252>
- Cole, Z. J.** (2011). Effects of music on exercise. *Northwest Student Professional Network Journal: Publication of Works*, 6, p. 7.
- Cole, Z. J.**, & Maeda, H. (2011) Effects of earphones on exercise. *Northwest Student Professional Network Journal: Publication of Works*, 6, p. 24.
- Cole, Z. J.**, Maeda, H., & Knutson, D. (2011). Music effects on exercise. *Northwest Student Professional Network Journal: Publication of Works*, 6, p. 18.
- Cole, Z. J.**, Maeda, H., & Knutson, D. (2011). Music selection and running performance. *Western Society for Kinesiology & Wellness R. D. Peavy Papers*, p. 55-56.
- Maeda, H., **Cole, Z. J.**, Boice, J., Swihart, R., & Mendes, K. (2011). Slow relaxing music and runners. *Northwest Student Professional Network Journal: Publication of Works*, 6, p. 20.
- Maeda, H., **Cole, Z. J.**, & Brooks, J. (2011). Music and motor accuracy endurance. *Northwest Student Professional Network Journal: Publication of Works*, 6, p. 26.
- Maeda, H., **Cole, Z. J.**, Swihart, R., Boice, J., & Mendes, K. (2011). Running with fast energetic music. *Northwest Student Professional Network Journal: Publication of Works*, 6, p. 27.
- Maeda, H., **Cole, Z. J.**, & Brooks, J. (2011). Music and extraversion on free throw pace. *Western Society for Kinesiology & Wellness R. D. Peavy Papers*, p. 73-74.
- Maeda, H., **Cole, Z. J.**, & Brooks, J. (2011). Music, distraction, and free throw accuracy. *Western Society for Kinesiology & Wellness R. D. Peavy Papers*, p. 79-80.
- Maeda, H., **Cole, Z. J.**, & Knutson, D. (2011). Frequency of music listening. *Western Society for Kinesiology & Wellness R. D. Peavy Papers*, p. 77-78.
- Maeda, H., **Cole, Z. J.**, Boice, J., Swihart, R., & Mendes, K. (2011). Music genre preference: Running vs. studying. *Western Society for Kinesiology & Wellness R. D. Peavy Papers*, p. 75-76.
- Cole, Z. J.** (2010). The use and effects of imagery in golfers. *Northwest Student Professional Network Journal: Publication of Works*, 5, p. 122-124.
- Cole, Z. J.** (2010). Effects of music and exercise. *Western Society for Kinesiology & Wellness R. D. Peavy Papers*, p. 18.
- Cole, Z. J.** (2010). The use and effects of imagery in golfers. *Western Society for Kinesiology & Wellness R. D. Peavy Papers*, p. 22-23.

## CONFERENCES AND PRESENTATIONS

*Cognition and Biopsychology in Nebraska (CABiN) (March 2021)*

**Cole, Z. J.** (Invited Speaker). Exercise and executive function in perceptual and reflective attention.

*Vision Sciences Society Annual Meeting 2020*

**Cole, Z. J.**, Lintz, E. N., & Johnson, M. J. (Poster Presentation). Attentional competition in perceptual and reflective attention: An fMRI study.

*Cognition and Biopsychology in Nebraska (CABiN) (December 2019)*

**Cole, Z. J.** (Invited Speaker). Deep learning and eye tracking.

*Psychonomic Society Annual Convention 2019*

**Cole, Z. J.**, Kuntzelman, K. M., Dodd, M. D., Johnson, M. R. (Poster Presentation). How you see is what you get: A deep learning look at how cognitive state is variably informed by key aspects of raw eye movement data.

*University of Delaware Core Outreach Workshop 2019*

**Cole, Z. J.** (Invited Speaker). Deep Learning and Eye Tracking.

*Vision Sciences Society Annual Meeting 2019*

**Cole, Z. J.**, Kuntzelman, K. M., Dodd, M. D., Johnson, M. R. (Poster Presentation). I see what you did there: Deep learning algorithms can classify cognitive tasks from images of eye tracking data.

*University of Nebraska-Lincoln Research Fair 2019*

**Cole, Z. J.**, Kuntzelman, K. M., Dodd, M. D., Johnson, M. R. (Poster Presentation). Deep learning classification of images of eye tracking data can delineate motivational state while viewing scene images.

*University of Nebraska-Lincoln Psychology Research Symposium 2019*

**Cole, Z. J.**, Kuntzelman, K. M., Dodd, M. D., Johnson, M. R. (Poster Presentation). Deep learning classification of images of eye tracking data can delineate motivational state while viewing scene images.

*Vision Sciences Society Annual Meeting 2017*

Olson, C., **Cole, Z. J.**, Luu, G., Ding, J., Peissig, J., & Bukach, C. (Poster Presentation). Background check: Perceptual grouping cues reduce novice holistic processing of birds.

*University of Richmond Annual Arts and Sciences Symposium*

Richard, S., Frost, T., Jackson, W., Rivera, C., & **Cole, Z. J.** (Poster Presentation). The art of capping: An introduction to the procedural conventions of ERP data collection.

*28<sup>th</sup> Annual Convention of the Association for Psychological Science. (2016). Chicago, IL.*

**Cole, Z. J.** & Butler, D. L. (Poster Presentation). Disentangling the effects of study time and levels of processing on test performance in undergraduate students.

Butler, D. L., **Cole, Z. J.**, Ward, R. T., Dilorio, A. S., Samaan, L. M. (Poster Presentation). Recall as a function of study and test format: Understanding the role of organization in memory.

*2016 American Psychological Association Annual Convention. (2016). Denver, CO.*

**Cole, Z. J.** (Poster Presentation). Effects of study time and levels of processing on test performance. [Accepted]

**Cole, Z. J.,** Butler, D. L., Ward, R., Diiorio, A., & Samaan, L. (Poster Presentation). Comparing recall for sentences formatted in a concept map, outline, or list. [Accepted]

*24<sup>th</sup> Ball State University Psychological Science Poster Session. (2016). Muncie, IN.*

**Cole, Z. J. & Ritchey, K. A.** (Poster Presentation). Using pictures to build a schema for rapidly presented paragraphs.

**Cole, Z. J.,** Butler, D. L., Ward, R., Dilorio, A., & Samaan, L. (Poster Presentation). The effect of organization on recall using concept map tests.

**Cole, Z. J.** (Poster Presentation). Disentangling the effects of study time and study method on test performance.

*Ball State University Research Symposium. (2016). Muncie, IN.*

**Cole, Z. J. & Butler, D. L.** (Poster Presentation). Exploring the confounding effects of study time and study method on test performance in undergraduate students.

*27<sup>th</sup> Annual Convention of the Association for Psychological Science. (2015). New York, NY.*

**Cole, Z. J.,** Mabrey, M., Pierce, J., & Butler, D. (Poster Presentation). Comparing concept map and outline formats in memory recall using Easymap.

*23<sup>rd</sup> Ball State University Psychological Science Poster Session. (2015). Muncie, IN.*

**Cole, Z. J.,** Mabrey, M., Butler, D. (Poster Presentation). Comparing memory recall using lists, outlines, and concept maps.

*Ball State University Research Symposium. (2015). Muncie, IN.*

Mabrey, M., **Cole, Z. J.,** Pierce, J., & Butler, D. (Poster Presentation). The effectiveness of concept map and outline strategies in memory recall tests using Easymap software.

*International Development Consortium. (2014). Indianapolis, IN.*

*Inaugural Bruya-Wood Foundation Conference. (2014). Pullman, WA.*

**Cole, Z. J.** (Keynote Address). Postgraduate Education and Professionalism.

*56<sup>th</sup> Annual Western Society for Kinesiology & Wellness Conference. (2011). Reno, NV.*

Burns, A., Comfort, G., Maeda, H., **Cole, Z. J.,** McCord, T., Clifton, T., Dotson, C., Kendall, G., Silvers, W. M., & Bruya, L. D. (Symposium). Kinesiology student performance and instruction in the classroom.

Burns, A., Maeda, H., Dotson, C., **Cole, Z. J.,** Catalano, L., Blehm, A., Sorensen, C., McGowan, J., Silvers, W. M., & Bruya, L. D. (Symposium). Student performance outside the classroom: Student conferencing used for idea exchange.

**Cole, Z. J.,** Maeda, H., Dotson, C., Arndt, S., Silvers, W. M., & Bruya, L. D. (Symposium). Student performance outside the classroom: Professional review teams and student journal in undergraduate school.

**Cole, Z. J.,** Maeda, H., & Knutson, D. (Poster Presentation). Music selection and running performance.

Maeda, H., Cole, Z., Boice, J., Swihart, R., & Mendes, K. (Poster Presentation). Music genre preference: Running v. studying.

Maeda, H., **Cole, Z. J.**, & Brooks, J. (PowerPoint Presentation). Music and extraversion on free throw pace.

Maeda, H., **Cole, Z. J.**, & Brooks, J. (Poster Presentation). Music, distraction, and free throw accuracy.

Maeda, H., **Cole, Z. J.**, & Knutson, D. (Poster Presentation). Frequency of music listening.

*7<sup>th</sup> Annual Northwest Student Professional Network Conference. (2011). Pullman, WA.*

**Cole, Z. J.**, Maeda, H. (Poster Presentation). Music effects on exercise.

Maeda, H., **Cole, Z. J.**, Swihart, R., Boice, J., & Mendes, K. (Poster Presentation). Slow relaxing music and runners.

*Washington State University Annual Undergraduate Research Symposium. (2011). Pullman, WA.*

Maeda, H., **Cole, Z. J.**, Swihart, R., Boice, J., & Mendes, K. (Poster Presentation). Slow relaxing music and runners.

*Annual Northwest Student Professional Network Interpacific Research Symposium. (2011). Pullman, WA.*

**Cole, Z. J.** (PowerPoint Presentation). Music effects on exercise performance.

*28<sup>th</sup> Bi-Annual G. S. Wood Foundation Conference. (Spring 2011). Pullman, WA.*

*55<sup>th</sup> Annual Western Society for Kinesiology & Wellness Conference. (2010). Reno, NV.*

Bruya, L. D., Silvers, W. M., **Cole, Z. J.**, McCullough, L., & Johnson, K. (Hot topic discussion). Does a re-write policy in professional coursework improve student professional writing?

**Cole, Z. J.** (Poster Presentation). Effects of music and exercise.

**Cole, Z. J.** (Poster Presentation). Imagery in golf.

*6<sup>th</sup> Annual Northwest Student Professional Network Conference. (2010). Pullman, WA.*

*Annual Northwest Student Professional Network Interpacific Research Symposium. (2010). Pullman, WA.*

**Cole, Z. J.** (PowerPoint Presentation). Imagery use in golfers.

*27<sup>th</sup> Bi-Annual G. S. Wood Foundation Conference. (Fall 2010). Pullman, WA.*

*26<sup>th</sup> Bi-Annual G. S. Wood Foundation Conference. (Spring 2010). Pullman, WA.*

*25<sup>th</sup> Bi-Annual G. S. Wood Foundation Conference. (Fall 2009). Pullman, WA.*

**Cole, Z. J.** (Poster Presentation). The use and effects of imagery in golfers.

*4<sup>th</sup> Annual Northwest Student Professional Network Conference. (2008). Pullman, WA.*

*Annual Northwest Student Professional Network Interpacific Research Symposium. (2008). Pullman, WA.*

*22<sup>nd</sup> Bi-Annual G. S. Wood Foundation Conference. (Spring 2008). Pullman, WA.*

**Cole, Z. J.** (Poster Presentation). Psychomotor slowing: A review of Salthouse, T. A. (1996).

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## GRANTS

- Cole, Z. J.** (2015). APSSC Student Research Grant Competition. *Association for Psychological Science Student Caucus*, Association for Psychological Science. Not Awarded.
- Cole, Z. J.** (2015). Aspire Graduate Research Competition. *Sponsored Programs Office*, Ball State University: Muncie, IN. Not Awarded.
- Cole, Z. J.** (2015). [Master's Level Research] APAGS/Psi Chi Junior Scientist Fellowship/NSF Preparation Grant. *American Psychological Association Graduate Students/Psi Chi*, American Psychological Association. Not Awarded.
- Maeda, H., **Cole, Z. J.**, & Knutson, D. (2011). [The effects of music on exercise] Undergraduate research location funding match. *University Recreation Scheduling Office*, Washington State University: Pullman, WA. \$1,000.00.
- Maeda, H., **Cole, Z. J.**, & Knutson, D. (2011). [Music and extraversion on free throw pace] Undergraduate research location funding match. *University Recreation Scheduling Office*, Washington State University: Pullman, WA. \$625.00.
- Cole, Z. J.** (2011). Western Society for Kinesiology and Wellness conference travel grant. *Phi Epsilon Kappa (National Honorary Physical Education Fraternity)*, Washington State University: Pullman, WA. \$375.00.
- Cole, Z. J.** (2010). Western Society for Kinesiology and Wellness conference travel grant. *Phi Epsilon Kappa (National Honorary Physical Education Fraternity)*, Washington State University: Pullman, WA. \$375.00.
- Cole, Z. J.** (2010). The effects of music on exercise. *Undergraduate Research Fellowship*, Auvil Undergraduate Scholars Association, Washington State University: Pullman, WA. \$1,000.00.
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## AWARDS

- Cole, Z. J.** (2018). International Convention for Psychological Science Student Travel Award. *Association for Psychological Science*.
- Cole, Z. J.** (2015). Recognition of outstanding scholastic achievement and excellence. *Psi Chi: International Honor Society in Psychology*, Ball State University: Muncie, IN.
- Maeda, H., **Cole, Z. J.**, & Brooks, J. (2011). Music and extraversion on free throw pace. R. D. Peavy honor award for excellence in writing. *The Western Society for Kinesiology & Wellness*, Reno, NV.
- Maeda, H., **Cole, Z. J.**, Swihart, R., Boice, J., & Mendes, K. (2011). Slow relaxing music and running. The undergraduate research excellence award (honorable mention). *Undergraduate Research Symposium*, Washington State University: Pullman, WA.
- Cole, Z. J.** (2010). The effects of music on exercise. Undergraduate research fellowship award. *Auvil Undergraduate Scholars Association*, Washington State University: Pullman, WA. An article reviewing this award can be retrieved at <https://education.wsu.edu/2010/11/04/student-researchers/>
- Chmura, T., Bakke, J., **Cole, Z. J.**, Benson, D., Haughlie, T., & Murray, P. (2008). [Roger's hall government executive staff] Residence hall of the year. *Residence Hall Association*, Washington State University: Pullman, WA.
- Chmura, T., Bakke, J., **Cole, Z. J.**, Benson, D., Haughlie, T., & Murray, P. (2008). [Roger's hall government executive staff] National organization of the month (January). *National Residence Hall Honorary*, United States.
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## CERTIFICATIONS

- Institutional Review Board members. (January 2015). *Collaborative Institutional Training Initiative*.

Responsible conduct of research for social, behavioral, and educational researchers. (September 2014).

*Collaborative Institutional Training Initiative.*

Social and behavioral research. (January 2017). *Collaborative Institutional Training Initiative.*

Nonviolent Crisis Prevention and Intervention (CPI). (April 2014). *Washington State Department of Social and Health Services.*

Health information and security (HIPS) for students and instructors. (February 2011). *Collaborative Institutional Training Initiative.*

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## JOURNAL REVIEWING/EDITING

Reviewer. (October 2014). Manuscript review. *Research Quarterly for Exercise and Sport.*

Reviewer. (July 2014). Manuscript review. *Research Quarterly for Exercise and Sport.*

Reviewer. (December 2013). Manuscript review. *The Journal of Sport Psychology in Action.*

Reviewer. (September 2013). Manuscript review. *The Journal of Sport Psychology in Action.*

Editor. (2010 - 2011). Northwest student professional network: Publication of works. *Phi Epsilon Kappa (National Honorary Physical Education Fraternity)*, Washington State University: Pullman, WA.

Review Team Leader. (2010 - 2011). Northwest student professional network: Publication of works. *Phi Epsilon Kappa (National Honorary Physical Education Fraternity)*, Washington State University: Pullman, WA

Reviewer. (2009 - 2010). Northwest student professional network: Publication of works. *Phi Epsilon Kappa (National Honorary Physical Education Fraternity)*, Washington State University: Pullman, WA.

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## RESEARCH EXPERIENCES

Project Leader, *Attention, reflection, competition (ARC)*. (2019 – Present). Dr. Matthew Johnson's RAP Lab. University of Nebraska – Lincoln, NE. Collaborating with Evan Lintz.

- The purpose of this project is to determine the relative difficulty in inhibiting certain categories of visual stimuli during perception and reflection.

Project Leader, *Prime probability and the IoR-like effect in reflective attention*. (2019 – Present). Dr. Matthew Johnson's RAP Lab. University of Nebraska – Lincoln: Lincoln, NE.

- The purpose of this project is to follow-up a study where Johnson et al. found that an inhibition of return-like effect occurred during reflective attention trials. We hope to uncover the mechanisms underlying this effect.

Project Leader, *Deep learning and eye tracking*. (2019 – Present). Dr. Matthew Johnson's RAP Lab. University of Nebraska – Lincoln: Lincoln, NE. Collaborating with Dr. Karl Kuntzelman, Dr. Michael Dodd.

- The purpose of this project is to explore the factors relevant to decoding mental state (task) from eye movement data using deep learning classifiers.

Lab Manager, *Preparing Undergraduates for Research in STEM Related Fields (PURSUE)*. (Fall 2016 – 2018). Dr. Bukach's Beyond Categories Lab. University of Richmond: Richmond, VA.

- The purpose of the project is to develop teaching materials and a database of the major ERP components and various questionnaires. The database will be available to undergraduate students at institutions without ERP labs, allowing them have a simulated lab experience.
- Managed undergraduate student work.
- Trained undergraduates how to use the ERP system.
- Worked on ERP methodology tutorial videos.
- Helped establish the procedures and database questionnaires.

Lab Manager, *The use of perceptual grouping in holistic processing*. (Fall 2016 – 2018). Dr. Bukach's Beyond Categories Lab. University of Richmond: Richmond, VA.

- This project compared holistic processing in novice and expert Birders, with the specific purpose of determining how expertise affects perceptual grouping associated with holistic processing.
- Managed undergraduate work.
- Helped establish the procedures and program the experiment (using Superlab programming software).
- Worked on data analysis.
- Trained undergraduate students on basic data analysis in Excel and SPSS.
- Worked on conference submission and poster.

Institutional Researcher, *Learning experiences of international online students*. (Fall 2015 – Spring 2016). Office of institutional Effectiveness. Ball State University: Muncie, IN. Collaborating with Kurtis McCain.

- The purpose of this project was to find out if international students taking online classes are having positive class experiences, and are able to apply learned concepts outside of class.
- Identified a population at Ball State applicable for this study and developed an instrument to assess student learning and the online experience. Planning for data collection in Spring 2016.

Institutional Researcher, *The use of physical activity monitoring devices*. (Fall 2015 – Spring 2016). Office of Institutional Effectiveness. Ball State University: Muncie, IN. Collaborating with Dr. Darrell Butler.

- Developed an instrument to assess the use of physical activity monitors among students, faculty, and staff at Ball State University.

Project Leader, *Effects of Study Time and Levels of Processing on Undergraduate Student Test Performance (Master's Thesis)*. (Summer 2015 – Spring 2016). Thesis Chair: Dr. Darrell Butler. Ball State University: Muncie, IN.

- Master's Thesis designed to provide a distinction between the confounded effects of study time and study method on test performance in the literature.

Project Leader, *The effects of pictures and text on memory and inference development*. (Summer 2015 – Spring 2016). Ball State University: Muncie, IN. Collaborating with Dr. Kristen Ritchey.

- Experimental research meant to clarify the process of conceptual short term memory by determining if contextually clarifying pictures assist in the conceptual understanding of a rapidly presented paragraph.

Project Leader, *Do organized test formats leave visually disabled students at a disadvantage?* (Fall 2015 – Spring 2016). Butler Lab. Ball State University: Muncie, IN.

- This experiment is an attempt to generalize the findings of "Recall as a function of study format and test interface" to visually disabled students.



Project Leader, *Recall as a function of study format and test interface*. (Fall 2014 – Spring 2015). Butler Lab. Ball State University: Muncie, IN.

- This experiment was meant to identify how organization of the study material and the test format affects memory.
- Took part in conceiving the experiment, developing the stimuli, presenting at conference, and preparing the manuscript for publication. In charge of the training of research assistants and data collection.

Student Representative, Review Board Member. (Fall 2015 – Spring 2016). Institutional Review Board (IRB), Full Board Committee. *Office of Research Integrity*. Ball State University: Muncie, IN.

- Served as a full board review member on the Ball State University IRB. Reviewed and discussed research with the committee to determine risk level.

Review Board Member. (Spring 2015). Student Research Review Board (SRRB). *Office of Research Integrity*. Ball State University: Muncie, IN.

- Worked on SRRB committee determining level of review and level of risk for graduate and undergraduate research proposals to be conducted at Ball State University.

Electroencephalogram (EEG) laboratory training (March-April 2015). *Simon-Dack Lab*. Ball State University: Muncie, IN.

- Trained to conduct EEG related research in Dr. Stephanie Simon-Dack's laboratory.

Conducting research on event related potentials (ERPs). (January-April 2015). *ERP Symposium*. Ball State University: Muncie, IN.

- Attended Dr. Stephanie Simon-Dack's monthly Symposium lectures regarding ERP research.

Research Assistant, *Effect of music on basketball free-throw shooting accuracy*. (Spring 2011).

Washington State University: Pullman, WA. Collaborated with Dr. Hotaka Maeda.

- Experiment looking at the effects of music on free-throw shooting performance. Helped with conception, data collection, conference presentation, and manuscript preparation.

Project Leader, *Running with music*. (Fall 2010 – Spring 2011). Washington State University: Pullman, WA. Bruya Lab. Collaborated with Dr. Hotaka Maeda.

- Experiment looking at the effects of preferred and non-preferred music on running performance. Took part in conception, data collection, conference presentation, manuscript preparation, and the peer review and publication process.

Project Leader. *The use and effects of imagery in golfers*. (Fall 2009). Washington State University: Pullman, WA.

- Experiment differentiating what types of imagery is useful, and when imagery is used by golfers. Conceived the study, developed the survey, collected the data, presented findings, and wrote the manuscript.

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## TEACHING EXPERIENCES

Adjunct Professor (Spring 2021). Psychology 331: Physiological Psychology. *Department of Psychology*, Midland University: Fremont, NE.

Lecturer (Summer 2019). Psychology 463: Perception. *Department of Psychology*, University of Nebraska-Lincoln: Lincoln, NE.

Laboratory Instructor (Fall 2018). Psychology 350: Research and Data Analysis. *Department of Psychology*, University of Nebraska-Lincoln: Lincoln, NE.

Guest Lecture. (February 2017). Psychology 341: Cognitive Neuroscience. *Department of Psychology*, Washington State University: Richmond, VA.

Teaching Assistant. (2010 - 2011). Movement studies 313: Behavioral aspects of human movement. *Department of Counseling Psychology and Educational Leadership*, Washington State University: Pullman, WA.

Guest Lecture. (October 2010). Comprehensive graphic creation; Movement studies 313: Behavioral aspects of human movement. *Department of Counseling Psychology and Educational Leadership*, Washington State University: Pullman, WA.

Student Observer. (2009). Health and fitness teaching field experience. *Washington State Department of Teaching and Learning*, Tumwater High School: Tumwater, WA.

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## MEDIA

Radio Interview. (February 2016). Breakfast: Make you sweat- how can music motivate you? *ABC Gold Coast Morning Show*, Australia. Can be listened to online at <https://soundcloud.com/abc-gold-coast/breakfast-make-you-sweat-how-can-music-motivate-you>

Recognition Article. (November 2010). Movement studies student researchers win recognition. *College of Education*, Washington State University: Pullman, WA. Can be retrieved at <https://education.wsu.edu/2010/11/04/student-researchers/>

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## WORK EXPERIENCE

Adjunct Professor. (January 2021 – Present). *Department of Psychology*. Midland University: Fremont, NE.

Graduate Student. (August 2018 – Present). *Department of Psychology*. University of Nebraska – Lincoln: Lincoln, NE.

Research Specialist (Lab Manager). (June 2016 – Present). *Beyond Categories [Bukach] Cognitive Neuroscience (ERP) Lab*. University of Richmond: Richmond, VA.

Institutional Research Intern. (August 2015 – December 2015). *Office of Institutional Effectiveness*. Ball State University: Muncie, IN.

Graduate Assistant. (August 2014 – Present). *Center for International Development*. Ball State University: Muncie, IN.

Psychiatric Childcare Counselor. (March 2014 – August 2014). *Child Study and Treatment Center: Western State Mental Hospital*. Washington State Department of Social and Health Services: Lakewood, WA.

Transportation Technician 1 – Geotechnical Drilling. (Summer: 2008, 2009, 2010; September 2011 to September 2013). *Materials Lab*. Washington State Department of Transportation: Olympia, WA.

Executive Secretary. (2008-2009). *Rogers hall government, Residence Hall Association*. Washington State University: Pullman, WA.

Basketball Referee. (Spring 2008). *University Recreation*. Washington State University: Pullman, WA.

Grade Checker/Laborer. (Summer 2007). *Scott's Excavating*: Lacey, WA.

Driving Range Attendant. (2005-2006). *Airport Golf and Batting Cages*: Tumwater, WA.

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## **VOLUNTEER EXPERIENCE**

Graduate Mentor. (2014-2015). Undergraduate mentorship program. *Association for Psychological Science Student Caucus*.

Course Marshal. (2013). America's cup championship. *America's Cup*: San Francisco, CA.

Event Volunteer. (2011). Jingle bell fun run. *YMCA*: Lakewood, WA.

Teaching Assistant. (2011). Movement studies 313: Behavioral aspects of human movement (spring). *Department of Counseling Psychology and Educational Leadership*. Washington State University: Pullman, WA.

Gym Attendant. (2010). WSU athletics workout facility: Bohler gym. *Washington State University Athletic Department*: Pullman, WA.

Article Reviewer. (2009 – 2010). Northwest student professional network: Publication of works. *Phi Epsilon Kappa (National Honorary Physical Education Fraternity)*. Washington State University: Pullman, WA.

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