# Kathryn L. Gwizdala, Ph.D.

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## **EDUCATION**

Sept. 2015 – Dec. 2019 **Doctor of Philosophy in Kinesiology** 

Concentration in Cognitive and Motor Neuroscience

Michigan State University

East Lansing, MI

Advisor: Matthew Pontifex, Ph.D.

Aug. 2012 – Aug. 2015 Bachelor of Science in Neuroscience, Summa Cum Laude

Concentration in Behavioral and Systems Neuroscience

Michigan State University

East Lansing, MI

## PROFESSIONAL EXPERIENCE

Sept. 2024 - Present

Independent Consultant - Clinical Research Subject Matter Expert,

HumanTrue, Average 8 hours/week (varies based on needs)

HumanTrue is a health technology company that has developed CLARA, the world's first protocol-powered AI designed to simplify, accelerate, and increase the efficiency of the clinical trial lifecycle.

- Validation of AI processes
  - Verifying AI outcomes and providing corrective feedback/course of action to train the model and assist in product development.
- Development of chat capabilities
  - Analyzing chat capabilities that would enhance/support running clinical trials more effectively.
- Review/Compilation of informed consent template
  - Provide firsthand experience and guidance around best practices in development of consent templates.
  - Leverage deep domain expertise in regulatory knowledge of informed consent.
  - Writing guidance documentation for consent template content.
- Design of chat and informed consent capabilities
  - Evaluate software to ensure it meets expectations and works as intended.
  - Direct written and oral feedback to the software development team for product enhancements and capabilities.
- Researched and compiled information on consent form development
  - Presented findings to the UI/Development/Management teams.
  - Provided personas that the software is applicable to targeting.

- Input additional parameters to the chat process in order to enhance the AI engine.
- O Quantified customer value management points for "Why HumanTrue?" versus current practices in the clinical field.

May 2024 - Present

**Contract Consultant - Associate Research Scientist**, Oregon Research Institute, Springfield, OR, *Average 1-5 hours/week (varies based on needs)* 

Oregon Research Institute (ORI) is an independent non-profit behavioral research center focused on promoting quality of life by furthering the understanding of human behavior and the implementation of targeted health programs.

- Provide expertise in healthy behaviors, metabolic/inflammatory diseases, and neurocognitive function for collaboration with multidisciplinary research scientists.
- Co-PI on an R21 grant submission for a clinical trial to evaluate the effects of a PE program on cognitive function in school-aged children.

June 2024 - Oct. 2024

**Research Assistant Professor,** Northwestern University - Feinberg School of Medicine, Age Brain and Circulation Lab, Chicago, IL, *40 hours/week* 

The Northwestern Feinberg School of Medicine is a world-renowned medical research institution fostering innovation in a range of scientific fields from cancer to neurodegenerative disorders. The Age Brain and Circulation (ABC) Lab sits in the Department of Neurology pushing forward understanding in neurovascular functioning both in health and disease states to continuously improve upon precision medicine.

- Assisted PI of the ABC Lab with day-to-day operations.
- Interviewed 12 research study assistant candidates to ensure the lab was appropriately staffed.
- Developed onboarding documents and processes for new staff.
- Trained, and onboarded 2 new staff members.
- Collaborated closely with the lab manager to ensure proper research and regulatory training/compliance for both new and existing staff.
- Developed, with our multidisciplinary team, data processing, and recruitment SOPs for better data management and participant retention.
- Facilitated the reorganization of data storage to establish standardization of knowledge sharing among internal and external staff.
- Managed weekly lab meetings and journal clubs to keep an open line of communication between lab leadership and staff in addition to promoting discussions of the latest research in our field.

Feb. 2022 – Jan. 2024

Consultant - UX Researcher, Bold Insight, Chicago, IL, 40 hours/week

Bold Insight is a full-service user experience and human factors research agency, serving a wide variety of industries, specializing in large-scale and global research spanning the entire product development lifecycle. Specializing in research methods that enable better product design and more effective user experience.

- Streamlined FDA approval, by establishing testing and approval requirement processes, for medical device, biotechnology, and pharmaceutical companies resulting in early product releases and reduction in cost.
- Reduced risk of product complaints by developing enhanced product documentation and processes leading to a decrease of call center traffic.
- Optimized the consumer experience, through mobile application and software end user acceptance testing, resulting in an increase in net promoter score via customer satisfaction surveys.
- Cultivated collaboration across teams of researchers, notetakers, and moderators utilizing various technologies (e.g., Slack, Microsoft Teams, etc.) enabling synchronous communication. Increasing efficiency and resulting in on-time and on-budget project outcomes.
- Facilitated client and vendor (i.e. recruiting and facility) facing communications in order to obtain optimal setup, execution and completion of the projects.
- Authored and presented research documentation (e.g., protocols, participant facing materials, reports, etc.) for biomedical, pharmaceutical, automotive, and high-tech clients.
- Generated complex proposals and project plans for new business and statements of work (SOW) documentation for both new clients and existing businesses.

Jan. 2020 – Feb. 2022

**Postdoctoral Fellow**, Physical Activity & Ethnic Minority Health Lab Pennington Biomedical Research Center (PBRC), Baton Rouge, LA, 40 hours/week

(Mentors: Dr. Robert Newton Jr., Dr. Owen Carmichael)

The PBRC is a world-renowned leader at the forefront of medical discoveries related to obesity, diabetes, cardiovascular disease, cancer, and dementia.

- Spearheaded a clinical trial resulting in a \$81,649 from the NORC Obesity and Alzheimer's Disease and Related Disorders (ADRD) Pilot/Feasibility grant.
- Formulated and executed a fully vetted budget plan.
- Pioneered a new line of intranasal insulin research at the biomedical center.
- Facilitated the creation, modification and bi-directional communication with the FDA resulting in Investigational New Drug (IND) approval.
- Negotiated medical device contracts with CEO of third party to facilitate intranasal testing.
- Forged a partnership with the Medical Director at Rush Alzheimer's Disease Center, Chief Medical Officer at Pennington Biomedical Research Center, and nursing staff to facilitate medical research.
- Interpreted and synthesized the analytical data on 1,295 participants for a longitudinal epidemiological cohort.
- Mentored both undergraduate and graduate researchers.
- Publicized research, via presentations, at scientific meetings and conferences as well as professional, career, and grant development workshops.

- Authored 5 publications, 3 of which are first author.
- Cultivated a focus on the health of an underrepresented minority population through public outreach.
- Undertook the role of Co-Chair, Pennington Biomedical Research Center Capital Area United Way Fall 2021 Campaign.

**Completed Clinical Trial:** Food Intake and Intranasal Insulin for African American Adults (FIINAAL)

This study aims to assess Alzheimer's disease related measures and body composition's influence on the relationship between intranasal insulin and food intake in older African American adults, an at-risk, underrepresented population. Investigational New Drug (IND) application approval was obtained from the FDA to conduct this trial.

## PROFESSIONAL SKILLS AND INTERESTS

## **EXECUTIVE SKILL SUMMARY**

As a dedicated professional, with a Ph.D. in Kinesiology (concentration in cognitive and motor neuroscience), 9 years of clinical research and medical writing, and 4 years of experience in clinical trials, I will bring a wealth of expertise to your team. I am adept at navigating the clinical research process, from study design to regulatory compliance, setup to close out. My organizational skills, attention to detail, adaptability, excellent verbal and written communication, and teamwork ensure seamless project management. I flourish in a fast-paced, changing environment as a resourceful and responsible leader and team member. Moreover, strong project management skills allow me to handle multiple tasks efficiently, even under tight deadlines. My ability to dissect complex clinical data and translate it into clear, concise language for varying levels of personnel and clients is a hallmark of my work. Furthermore, my organizational finesse allows me to manage competing priorities effectively with excellent budget management. I have navigated the intricacies of ICH-GCP and the regulatory landscapes of the US, and the EU and successfully obtained an IND submission approval with the FDA. I thrive in collaborative environments, seamlessly coordinating and communicating with cross-functional teams and internal and external stakeholders nationally and internationally. My agile approach, positive attitude, meeting timelines, and ability to work independently equip me to contribute to the success of the team.

## RESEARCH INTERESTS

My primary research interests lie in untangling the complex relationship of health behaviors, and its associations with metabolic and psychosocial modifiers of disease, and disease outcomes, metabolic (such as diabetes and obesity) and neurological (such as Alzheimer's disease). I am interested in exploring these relationships with individuals across the lifespan and in underrepresented populations, such as older African American adults and Down syndrome.

## HONORS AND AWARDS

2015 Associated Students of Michigan State University Outstanding Senior Award
2012 – 2015 Honors College Scholarship – Michigan State University
2012 – 2015 Dean's List – Michigan State University

#### RESEARCH EXPERIENCE

Aug. 2015 – Dec. 2019

**Graduate Research Assistant**, Health Behaviors and Cognition Lab Department of Kinesiology, Michigan State University, East Lansing, MI, 40 hours/week

(Lab Director: Matthew B. Pontifex, Ph.D.)

The HBCL drives and advances interdisciplinary research aimed at understanding the highly complex relationship of health-related behaviors (e.g., exercise) and their influences on cognitive functioning.

- Supervised 4 studies conducted in the lab.
- Executed the development of study design, recruitment, processing data, and testing of 200+ participants.
- Trained and supervised 30+ undergraduate and 3 graduate research assistants.
- Orchestrated FDA research and collaboration (i.e., drafted application and directly communicated with the FDA to obtain an IND exemption) for intranasal insulin clinical trial.

**Dissertation Title:** Cerebral glucose uptake as an underlying mechanism of the effect of acute physical activity on inhibitory control

This project was a pharmaceutical double-blind randomized-controlled trial examining the dose-response relationship between intranasal insulin and changes in inhibition and neural indices of attention. This project required me to seek out an FDA investigational new drug exemption to enable the administration of doses of intranasal insulin — which have been demonstrated to result in increased cerebral glucose uptake. Findings from this project provided vital insights into the dosages of intranasal insulin necessary to incur benefits as well as demonstrate the extent to which exercise modulated the safety and efficacy of this pharmaceutical approach to enhancing brain function.

Feb. 2014 – July 2015

Undergraduate Research Assistant, Health Behaviors and Cognition Lab Department of Kinesiology, Michigan State University, East Lansing, MI, 20 hours/week (Unpaid)

(Lab Director: Matthew B. Pontifex, Ph.D.)

- Executed recruitment and testing of participants for multiple studies investigating the relationships between cognition, memory, and health behaviors.
  - Grant-funded research (by Nike) for the effect of acute physical activity on the behavioral indices of inhibition in pre-adolescents with ADHD.
  - Coordinated R21-funded exploratory research using fMRI techniques to delve into cerebral blood flow and its relationship to acute physical activity and how much of an influence acute physical activity has on cognitive control in typically developing pre-adolescent children.
  - Research on acute physical activity and its effect on behavioral responses of women with anxiety.
- Conducted data processing and analyses on multiple datasets including behavioral and EEG neuroimaging data.
- Gained extensive experience in indirect calorimetry, neural imaging (EEG/ERPs and MRI) techniques, and psychometric behavioral test administration.

## May 2013 – Aug. 2013

## Undergraduate Research Assistant, Ofen Lab

Institute of Gerontology, Wayne State University, Detroit, MI, *Unpaid Internship* (Lab Director: Noa Ofen, Ph.D.)

- Championed being the liaison between researchers and participants while onsite both in the lab and hospital.
- Led Pre-lab dissertation and Post-Lab processing of the participants
- Coordinated the execution of MRI session (executed the behavioral tasks during the imaging)
- Administered standardized behavioral psychological assessments.
- Championed participant follow-up post lab participation.

## Aug. 2012 – April 2013

# **Honors Undergraduate Research Seminar**

Michigan State University (Instructor: Dr. Dirk Colbry)

- Responsible for processing data using a virtual machine
- Gained extensive experience with programs Chamview, ImageJ, and Image Segmentator.
- Successfully created and presented a poster for the University Undergraduate Research and Arts Forum (UURAF).

#### **FUNDING**

#### **External Grants:**

Total External Funding Pursued: \$198,000 TDIC

 BrightFocus Foundation Postdoctoral Fellowship Program in Alzheimer's Disease Research, Principal Investigator: "BRAin INsulin and Exercise Effects In African AmeriCans (BRAINEEIAC)", \$181,090.16
 TDIC (Withdrawn, January 2022 for new job opportunity)

[X] Formulated Concept [X] Aims [X] Research Plan [X] Budget [X] Supporting Documents

2. LuMind Research, **Co-Investigator**, (M. Pontifex, Principal Investigator): "Physical activity as a tool to reduce Down syndrome related cognitive impairments", \$198,000 TDIC (**Unfunded**, June 2016)

[X] Formulated Concept [X] Aims [X] Research Plan [X] Budget [X] Supporting Documents

#### **Internal Grants:**

Total Internal Funding Awarded: \$100,749, Total Internal Funding Pursued: \$103,249

- 2020 NORC OBESITY AND ALZHEIMER'S DISEASE AND RELATED DISORDERS (ADRD)
   PILOT/FEASIBILITY GRANT, Pennington Biomedical Research Center, **Principal Investigator**: "Food
   Intake and Intra-Nasal Insulin for African American Adults (FINAAL)", \$81,649 TDIC (**Funded**, September
   2020)
- 2. Michigan State University, Kinesiology, "University Dissertation Completion Fellowship", \$7,000 (**Funded**, December 2018)
- 3. Michigan State University, Kinesiology, "College of Education Summer Renewable Research Fellowship", \$6,000 per summer (**Funded**, April 2017)
- 4. Michigan State University, Kinesiology, "Dissertation and Research Practicum Support Fellowship Award", \$3,600 (**Funded**, January 2017)
- 5. Michigan State University, Kinesiology, "College of Education Summer Research Development Partial Fellowship", \$2,500 (**Funded**, May 2016)
- 6. Michigan State University, Kinesiology, "College of Education Summer Research Development Fellowship", \$5,000 (Unfunded, February 2016)

## **SCHOLARSHIP**

Registered with:

NCBI Google Scholar ORCID

https://www.ncbi.nlm.nih.gov https://scholar.google.com http://orcid.org/

#### PEER-REVIEWED JOURNAL ARTICLES (IN PRINT OR ACCEPTED):

1. **Gwizdala, K. L.**, Bazzano, L. A., Carmichael, O. T., & Newton Jr, R. L. (2025). Greater BMI across the lifespan is associated with better midlife cognition: The Bogalusa Heart Study. Scientific Reports, 15(1), 5336.

[X] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [1] Data Collection

- Tong, H., Capuano A.W., Carmichael, O.T., Gwizdala, K.L., Bennett, D.A., Ahima, R.S., Arnold, S.E., Arvanitakis, Z. (2024). Brain Insulin Signaling is Associated with Late-life Cognitive Decline. *Aging and Disease*, 15(5), doi: 10.14336/AD.2023.1117
   [] Research Design [] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [] Data Collection
- 3. **Gwizdala, K.L.**, Bazzano, L.A., Newton, R.L., Carmichael, O.C. (2023). Race and sex differences in the association between lifespan glycemic status and midlife cognitive function: The Bogalusa heart study. *Front. Public Health, Sec. Aging and Public Health, 11*, doi: 1200415

  [X] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [] Data Collection
- 4. Chuang, KC., Ramakrishnapillai, S., Madden, K., St Amant, J., McKlveen, K., **Gwizdala, K.**, Dhullipudi, R., Bazzano, L., Carmichael, O.T. (2023) Brain Effective Connectivity and Functional Connectivity as Markers of Lifespan Vascular Exposures in Middle-Aged Adults: The Bogalusa Heart Study. *Frontiers in Aging* 
  - [] Research Design [] Statistical Analysis [] Drafted Manuscript [X] Revised Manuscript [] Data Collection
- Gwizdala, K.L., Brouillete, R., Beyl, R., Johnson, W., Hebert, C., Carter, L., Harris, M., Carmichael, O.T., Newton, R.L. (2022). Exercise effects on cognition in older African Americans: a pilot randomized trial. *Front Aging Neurosci.*, 14, doi: 10.3389/fnagi.2022.921978.
  - [] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [] Data Collection
- Gwizdala, K.L., Pugh, E.A., Carter, L., Carmichael O.T., Newton, R.L. (2022). Impact of COVID-19 Pandemic on Lifestyle Factors and Research Participation Among Older African Americans. *Alzheimer's Disease and Related Disorders*, 36(4), 350-353. doi: 10.1097/WAD.000000000000512.
  - [X] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [X] Data Collection
- 7. **Gwizdala, K. L.**, Ferguson, D. P., Kovan, J., Novak, V., & Pontifex, M. B. (2021). Placebo controlled phase II clinical trial: Safety and efficacy of combining intranasal insulin & acute exercise. *Metabolic Brain Disease*, *36(6)*, 1289–1303. doi: 10.1007/s11011-021-00727-2.
  - [X] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [X] Data Collection
- 8. Hauck, J. L., Felzer-Kim, I. T., **Gwizdala, K. L.** (2020). Early movement matters: Physical activity in early infancy influences prone and sitting motor milestone acquisition in infants with Down syndrome. *Adapted physical activity quarterly: APAQ, 37(2),* 160–176. https://doi.org/10.1123/apaq.2019-0012
  - [X] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [] Data Collection
- 9. Pontifex, M. B., McGowan, A. L., Chandler, M., C., **Gwizdala, K. L.**, Parks, A. C., Fenn, K., & Kamijo, K. (2019). A primer on investigating the after effects of acute bouts of physical activity on cognition. *Psychology of Sport & Exercise*, 40, 1-22.
  - [X] Drafted Manuscript [X] Revised Manuscript

Neuroscience, 15, doi: 1110434.

- 10. Pontifex, M. B., **Gwizdala, K. L.**, Weng, T. B., Zhu, D. C., & Voss, M. W. (2018). Cerebral blood flow is not modulated following acute aerobic exercise in preadolescent children. *International Journal of Psychophysiology*, 134, 44-51.
  - [ ] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [X] Data Collection

- 11. Pontifex, M. B., **Gwizdala, K.**, Parks, A. C., Billinger, M., & Brunner, C. (2017). Variability of ICA decomposition may impact EEG signals when used to remove eye blink artifacts. *Psychophysiology, 54*, 386-398. doi: 10.1111/psyp.12804 (PMID: 28026876)
  - [ ] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [ ] Data Collection
- 12. Pontifex, M. B., **Gwizdala, K. L.**, Parks, A. C., Pfeiffer, K. A., & Fenn, K. M. (2016). The association between physical activity during the day and long-term memory stability. *Scientific Reports*, *6*(38148), 1-9. doi: 10.1038/srep38148 (PMID: 27909312)
  - [ ] Research Design [ ] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [X] Data Collection

#### MANUSCRIPTS SUBMITTED FOR REVIEW:

Goodson, M.M., Gwizdala, K.L., Manrique, I.R., Rao, A., Beyl, R., Martin, C., Firmin S., Salceanu, V., Newton Jr., R.L., Carmichael, O.T. Acute Effect of Intra-nasal Insulin on Food Intake Among Middle-Aged African American Adults: the FIINAAL Study [Submitted to Journal of Clinical Endocrinology & Metabolism]
 [X] Research Design [] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [X] Data Collection

#### MANUSCRIPTS IN PREPARATION:

- 2. Chuang, KC., Naseri, M., Ramakrishnapillai, S., Madden, K., St Amant, J., McKlveen, K., **Gwizdala, K.,**Dhullipudi, R., Bazzano, L., Carmichael, O. The hemodynamic response function in midlife is associated with lifespan cardiovascular risk and midlife brain health: Bogalusa Heart Study
  [] Research Design [] Statistical Analysis [] Drafted Manuscript [X] Revised Manuscript [] Data Collection
- 3. **Gwizdala, K.L.**, Kracht, C.L., Newton, R.L., Stiano, A.E. Health related quality of life as a mediator of the relationship between insulin resistance, body composition and depressive symptomology in adolescents.

  [X] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [X] Data Collection
- 4. **Gwizdala, K. L.**, Pontifex, M. B., & Hauck, J. L. Treadmill protocol without motivation in individuals with Down syndrome: feasibility and recommendations.
  - $[X] \ Research \ Design \quad [X] \ Statistical \ Analysis \quad [X] \ Drafted \ Manuscript \quad [X] \ Revised \ Manuscript \quad [X] \ Data \ Collection$
- 5. Kraal, A.Z., **Gwizdala, K.L.**, Palta, P., Sims, M., Denstel, K., Selvin, E., Windham, B.G., Heiss, G., Knopman, D., Bertoni, A., Carmichael, O.T., Newton, R.L. Psychosocial moderators of the diabetes-brain relationship: the Jackson Heart Study and the Atherosclerosis Risk in Communities (ARIC) Study cohorts.

  [X] Research Design [X] Statistical Analysis [X] Drafted Manuscript [X] Revised Manuscript [1] Data Collection

#### INVITED LECTURES AND SYMPOSIA (NOT INCLUDED IN ABSTRACTS):

- 1. **Gwizdala, K.L.** (2021). Impact of the COVID-19 Pandemic on Research Participation Among Older African Americans. Louisiana COVID-19 Seminar Series. Louisiana Clinical and Translational Science Center (LACATS)
- 2. **Gwizdala, K. L.** (2020). Influences of Health Behaviors on Neurophysiological Underpinnings of Cognitive Health. LaTech Kinesiology Seminar. Ruston, LA.

#### ABSTRACTS (in print or accepted) \*indicates Dr. Gwizdala was a senior author:

- 1. Chuang, K.C., Naseri I, M., Ramakrishnapillai, S., Madden, K., St Amant, J., McKlveen, K., **Gwizdala, K.,** Dhullipudi, R., Bazzano, L., Carmichael, O. (2023). Hemodynamic Response Function Derived Biomarkers for Brain Health in Middle-Aged Adults. *American Association of Physicists in Medicine (AAPM)*
- 2. Chuang, KC., Ramakrishnapillai, S., Madden, K., St Amant, J., McKlveen, K., **Gwizdala, K.,** Dhullipudi, R., Bazzano, L., Carmichael, O. (2023). Hemodynamic Response Biomarkers for Aging Brain Health: Bogalusa Heart Study. *Alzheimer's Association International Conference (AAIC)*

- 3. Carter, L., Garn, A.C., Newton, Jr., R.L., Carmichael, O.C., **Gwizdala, K.L.\*** (2022). Impact of COVID-19 Pandemic on Health Behaviors Among Older African Americans. *International Society of Behavioral Nutrition and Physical Activity (ISBNPA)*
- 4. **Gwizdala, K.L.**, Arvanitakis, Z., Arnold, S.E., Ahima, R.S., Bennett, D.A., Newton, R.L., Carmichael, O.T. (2021). Brain Insulin Signaling in Persons with and without Diabetes Is Associated With Cognitive Decline. *Alzheimer's Association International Conference (AAIC)*
- 5. Newton, R.L., **Gwizdala, K.L.**, Bazzano, L.A., Carmichael, O.T. (2021). Race and sex differences in lifespan glycemic status and midlife cognitive function: The Bogalusa Heart Study. *Alzheimer's Association International Conference (AAIC)*
- 6. Bazzano, L.A., **Gwizdala, K.L.**, Carmichael, O.T., Newton, R.L. (2021). BMI across the lifespan and midlife cognitive function: The Bogalusa Heart Study. *Alzheimer's Association International Conference (AAIC)*
- 7. Carmichael, O.T., **Gwizdala, K.L.**, Brouillete, R., Beyl, R., Johnson, W., Hebert, C., Carter, L., Harris, M., Newton, R.L. Twelve weeks of physical activity promotion did not benefit AD-related cognition among community-dwelling African Americans: Program for African American Cognition and Exercise (PAACE). *Alzheimer's Association International Conference (AAIC)*
- 8. **Gwizdala, K. L.,** Ferguson, D. P., Pontifex, M. B. (2019). The effect of intranasal insulin on neuroelectric and behavioral indices of inhibition: a dose-response examination. *Psychophysiology*, *56*, s73
- 9. **Gwizdala, K. L.,** Pontifex, M. B., Hauck, J. L. (2018). Implications of Motivation for Individuals with Down syndrome to Successfully Complete a Treadmill Protocol. Presented at the 14<sup>th</sup> biennial North American Federation of Adapted Physical Activity Conference at Oregon State University
- 10. **Gwizdala, K. L.,** Felzer-Kim, I. T., Hauck, J. L. (2018). Physical activity level changes are related to motor skill changes in infants with Down syndrome. *Journal of Sport and Exercise Psychology, 40, s28*
- 11. **Gwizdala, K. L.,** Weng, T. B., Voss, M. W., Pontifex, M. B. (2017). The effects of single bouts of exercise on cerebral blood flow in preadolescent children. *Journal of Sport and Exercise Psychology, 39*, s250
- 12. **Gwizdala, K. L.,** McGowan, A. L., Miskovic, V., Laszlo, S., & Pontifex, M. B. (2016). An investigation of fully automated approaches for the selection of eye blink ICA components. *Psychophysiology*, *53*, s36
- 13. **Gwizdala, K. L.,** Lamkin, S., Parks, A. C., Henning, D. A., Billinger, M., Brunner, C., and Pontifex, M. B. (2015) Eye blink artifact removal using ICA may be killing your findings: How variability in ICA solutions influence stimulus-locked ERPs. *Psychophysiology*, *52*, s78

## POSTER PRESENTATIONS (not included in Abstracts):

- 1. Manrique, I., De-Anda Duran, I., **Gwizdala, K**., Bazzano, L., Carmichael, O. (2022, April). Lifespan Metabolic Syndrome Components and Mid-Life Depression Within the Bogalusa Heart Study. Presented at the LSU Discover Day; 2022 Apr 22; Baton Rouge, LA.
- 2. **Gwizdala, K. L.**, & Colbry, D. (2013). The automation of chestnut grading. Presented at the Michigan State University Undergraduate Research and Arts Forum, East Lansing: MI.

## TEACHING EXPERIENCE

**UNDERGRADUATE CORE COURSES:** 

Fall 2018 & Summer (Online) 2019

**Instructor,** KIN 250: Measurement in Kinesiology Michigan State University, East Lansing Michigan

Responsible for the organization, instruction and execution of the course material for this course. Instructional responsibilities include, setting up and maintenance of a course website, creation/evaluation of course activities/labs, assignments, and exams that cover material addressing methods and materials for measurement and evaluation applied to motor skills, physical fitness, sport psychology and other concepts in Kinesiology. For the fall 2018 semester, worked with certain students in the honors college that wanted to gain an honors option through extra work enhancing their experience in the course. Additionally, for the summer 2019 semester, continuously recorded/edited lectures and instructional videos for the proper dissemination of the course material.

Selected Topics Covered in the Course:

- Levels of Measurement
- Hypothesis Testing, T-Tests and ANOVA's
- Measures of Variability and Z-scores
- Correlation and Regression
- Physical Fitness and Activity Assessment in Adults and Youth
- Psychological Measurement in Sports & Exercise

Semester	Mean Number of Students in each Section	Instructor Involvement	Student Interest	Student Instructor Interaction	Course Demands	Course Organization
Fall 2018	54	$2.32 \pm 0.97$	$2.45 \pm 1.01$	$2.40 \pm 0.97$	$2.22 \pm 0.84$	$2.21 \pm 0.92$
US19	18	$2 \pm 0.86$	$2.06 \pm 0.86$	$2.37 \pm 1.05$	$2.37 \pm 0.99$	$2.18 \pm 0.88$
Scores Obtained from MSU Student Instructional Rating System as of January 2019 Scores range from (1) Superior to (5) Inferior						

Fall 2018 – Spring 2019

**Instructor,** KIN 371: Introduction to Research Methods in Kinesiology Michigan State University, East Lansing Michigan

Responsible for execution and organization of course material for this course of 14 and 24 students. Instructional responsibilities include setting up and maintenance of a course website, creation/evaluation of assignments, in-class activities and exams. The material of this course covers the foundational steps of evaluating, and properly conducting research with the goal of being able to create your own solid research proposal by the end of the course. Additionally, worked with students in the honors college to gain an honors option through extra work enhancing their experience in the course.

## Selected Topics Covered in the Course:

- Introduction to Research Methods in Physical Activity
- Developing the Problem and Using the Literature
- Ethical Issues in Research and Scholarship
- Experimental and Quasi Experimental Research
- Stats Issues in Research Planning/Evaluation
- Ways of Reporting Research

Semester	Mean Number of Students in each Section	Instructor Involvement	Student Interest	Student Instructor Interaction	Course Demands	Course Organization
Fall 2018	14	$1.70 \pm 0.78$	$2.2 \pm 1.15$	$1.63 \pm 0.90$	$1.40 \pm 0.80$	$1.50 \pm 0.72$
Spring 2019	24	$2 \pm 0.75$	$2.28 \pm 0.99$	$2.01 \pm 0.91$	$2.15 \pm 0.76$	$2.07 \pm 0.79$
Scores Obtained from MSU Student Instructional Rating System as of January 2019 Scores range from (1) Superior to (5) Inferior						

# Fall 2017 – Spring 2018

# **Instructor,** KIN 121: The Healthy Lifestyle Michigan State University, East Lansing Michigan

Responsible for the organization, execution and personal instruction of course material for the combination lecture and activity course of around 50 students. Instructional responsibilities included the evaluation/grading of assignments, creation of lectures, and execution of a variety of instructor and student lead physical activities. Lecturing topics include a wide range of material about the healthy lifestyle including developing physical fitness, cardiovascular risks, nutrition, mental health and lifetime wellness.

## Selected Topics Covered in the Course:

- Understanding Wellness
- Developing/Assessing Physical Fitness
- Exploring Special Exercise Considerations
- Adapted Physical Activity
- Cardiovascular Diseases and Heart Health
- Coping with Stress

Scores range from (1) Superior to (5) Inferior

Semester	Mean Number of Students in each Section	Instructor Involvement	Student Interest	Student Instructor Interaction	Course Demands	Course Organization
Fall 2017	50	$2.46 \pm 1.05$	$2.78 \pm 1.04$	$2.45 \pm 0.92$	$2.39 \pm 0.93$	2.27 ± 1.00
Spring 2018	49	$2.63 \pm 0.96$	$2.72 \pm 0.99$	$2.5 \pm 1.02$	$2.40 \pm 0.88$	$2.39 \pm 0.86$
Scores Obtained	from MSU Studer	nt Instructional Ra	nting System as o	f January 2019		

## Summer 2016

## **Instructor**, Kin 173: Foundations of Kinesiology

Responsible for the organization and execution of course material for the lecture and laboratory/discussion of this course. Instructional responsibilities included evaluation/grading of assignments and exams, set up/demonstration of techniques that are used in the Kinesiology field and lecturing on a wide range of topics that cover physiological, mechanical, and psychological perspectives.

## Selected Topics Covered in the Course:

- Cardiovascular system
- Ventilation/Respiration
- Skeletal System
- Skeletal Muscle Structure and Function
- Body Composition
- Development of Sport Behavior

Semester	Mean Number of Students in each Section	Instructor Involvement	Student Interest	Student Instructor Interaction	Course Demands	Course Organization
Summer 2016	23	$2.30 \pm 1.26$	$2.45 \pm 1.19$	$2.32 \pm 1.34$	$2.18 \pm 1.07$	2.09 ± 1.25

Scores Obtained from MSU Student Instructional Rating System as of January 2019 Scores range from (1) Superior to (5) Inferior

## **Teaching Assistant**

Fall 2019

# **Teaching Assistant**, NEU 301: Introduction to Neuroscience I

Responsible for the organization and execution of course material and instruction of 2 sections of recitation for an over 200 student lecture course, supervision of multiple undergraduate learning assistants. Instructional responsibilities include evaluation/grading of assignments and exams, point of contact for students for clarification/review of course materials and lecturing on the fundamental topics of neuroscience that include anatomy and physiology of the nervous system, structure and function of different brain systems, and the molecular, cellular and anatomical levels of the central and peripheral nervous system.

## Selected Topics Covered in the Course:

- Action Potentials
- G-Protein Coupled Receptors
- Neurotransmitters and their Receptors
- Anatomy
- PNS Anatomy
- Central Visual Systems

Spring 2016 – Fall 2017

Head Teaching Assistant, Kin 173: Foundations of Kinesiology

Responsible for the organization and execution of course material for 6 sections of the laboratory/discussion, supervision of multiple graduate and undergraduate teaching assistants, and the personal instruction of 4 sections. Instructional responsibilities included evaluation/grading of assignments, set up/demonstration of techniques that are used in the Kinesiology field and lecturing on a wide range of topics that cover physiological, mechanical, and psychological perspectives.

Selected Topics Covered in the Course:

- Cardiovascular system
- Ventilation/Respiration
- Skeletal System
- Skeletal Muscle Structure and Function
- Body Composition
- Development of Sport Behavior

Semester	Mean Number of Students in each Section	Instructor Involvement	Student Interest	Student Instructor Interaction	Course Demands	Course Organization
Spring 2016	$37 \pm 1.0$	$2.56 \pm 0.2$	$2.09 \pm 0.07$	$2.30\pm0.3$	$2.32\pm0.2$	$2.43 \pm 0.06$
Fall 2016	$39 \pm 1.0$	$2.15 \pm 0.36$	$1.81 \pm 0.14$	$1.97 \pm 0.37$	$2.08 \pm 0.33$	$2.18 \pm 0.38$
Spring 2017	$37 \pm 3.0$	$2.31 \pm 0.24$	$1.92 \pm 0.30$	$2.30\pm0.30$	$2.20 \pm 0.13$	$2.29 \pm 0.28$
Fall 2017	$40 \pm 1.0$	$2.595 \pm 0.12$	$1.975 \pm 0.18$	$2.425 \pm 0.05$	$2.71 \pm 0.01$	$2.64 \pm 0.10$

Scores Obtained from MSU Student Instructional Rating System as of January 2019 Scores range from (1) Superior to (5) Inferior

Fall 2015 & Spring 2018

**Teaching Assistant**, Kin 173: Foundations of Kinesiology Michigan State University, East Lansing Michigan

Responsible for the organization, execution and personal instruction of course material for 2 sections of the laboratory/discussion. Instructional responsibilities included evaluation/grading of assignments, set up/demonstration of techniques that are used in the Kinesiology field and lecturing on a wide range of topics that cover physiological, mechanical, and psychological perspectives.

Selected Topics Covered in the Course:

- Cardiovascular system
- Ventilation/Respiration
- Skeletal System
- Skeletal Muscle Structure and Function
- Body Composition
- Development of Sport Behavior

Semester	Mean Number of Students in each Section	Instructor Involvement	Student Interest	Student Instructor Interaction	Course Demands	Course Organization
Fall 2015	$37 \pm 1.0$	$2.7 \pm 0.2$	$2.1 \pm 0.1$	$2.6 \pm 0.1$	$2.5 \pm 0.2$	$2.7 \pm 0.2$
Spring 2018	39	$2.305 \pm 0.16$	$1.965 \pm 0.11$	$2.15 \pm 0.17$	$2.265 \pm 0.13$	$2.28 \pm 0.06$
Scores Obtained from MSU Student Instructional Rating System as of January 2019 Scores range from (1) Superior to (5) Inferior						

## UNDERGRADUATE ACTIVITY COURSES:

2015 **Instructor**, Kin 106C: Bowling 1

Michigan State University, East Lansing Michigan

Instructed students, with the help of lectures and practice, on how to execute and understand the fundamental skills of bowling through scoring, terminology, and the rules as well as learning about nontraditional bowling games.

#### **GUEST LECTURES:**

2019 **Presentation Title:** Healthy Behaviors and How They Affect Our Cognitive

**Function** 

Lectured students in two different courses (KIN 121: The Healthy Lifestyle and KIN 360: Physical Growth and Motor Behavior) on how cognitive performance is affected after acute exercise, the intricacies of the behavioral and neuroelectric measures that are used to quantify this change and why this type of research is important to people across the lifespan.

## SUPERVISION OF UNDERGRADUATE TEACHING ASSISTANTS

Shelby Cavazos Katie Voisard Monica Hagen
Abigail London Jeremy Hagerman Vanessa Cousino

## SUPERVISION OF UNDERGRADUATE RESEARCH ASSISTANTS (\*At PBRC)

Caleb Sokolowski	Madeleine Barrera	Mackenzie Eschberger	Tyler King	Amanda Pohl
Maddy Allen	Mallory Martlock	David Gasser	Thacker Hisey	Becca Blitz
Brandon Henry	Riley Rampolo	Morgan Ham	Abigail London	Katherine Miller
Grace Mansour	Parita Shah	Anthony Mrocko	Effie Oates	Monica Hagen

Katie Voisard	Jeremy Hagerman	Stacy Vo	Kayla Bryant	Vanessa Cousino
Will Shriver	Shelby Cavazos	Jensyn Bradley	Rachel Collaer	Andrew Rehling
Katelyn Eidenberger	Marie Dickson	Isabella Manrique*		

# **SERVICE**

## AD-HOC JOURNAL REVIEWER:

<u>Years</u>	Impact Factor	Journal Title
2024	1.8	Current Alzheimer Research
2024	0.702 (SNIP)	Current Aging Science
2021	2.592	Journal of Physical Activity and Health
2020	0.364 (SNIP)	Obesity Medicine
2019	5.688	Journal of Clinical Medicine (mentored review)
2016	4.162	Hippocampus (mentored review)

## COMMUNITY OUTREACH AND PROGRAMMING

Fall 2021	Co-Chair, Pennington Biomedical Research Center Capital Area United Way Campaign
	Pennington Biomedical Research Center, Baton Rouge, Louisiana
	Duties include but are not limited to meeting with the United Way representatives, notifying employees about the campaign, and sending out reminders to encourage participation.
May 2018	Volunteer, Michigan Victory Games
	Michigan State University, East Lansing, Michigan
	Volunteered on Friday, May 18th through Saturday, May 19th. Helped score, set up and run varying events throughout the games. This several day competition allows athletes of varying abilities from all over the state of Michigan to compete in a diverse set of events from track and field to power lifting. More detailed

information is given on the organization website http://www.michiganvictorygames.org/

June 2017

Volunteer, RicStar's Music Therapy Camp

MSU Community Music School, East Lansing Michigan

Volunteered on Tuesday June 20th (for youth/adolescents/young adults). Helped individuals with special needs enjoy and create music through different activities throughout the day. More details are provided on the official website https://cms.msu.edu/el/programs/summer-camps/ricstars-camp.html

March 2017

Volunteer, MSU Neuroscience Fair

Michigan State University, East Lansing, Michigan

Volunteered on Saturday, March 25th. Helped set up and run the Health Behaviors and Cognition Laboratory booth. Educated children and adults from the surrounding Greater Lansing community about what the lab does, provided a demonstration activity and informed them about current opportunities for them to participate in. More details provided on the official website https://neuroscience.natsci.msu.edu/outreach/outreach-events/neuroscience-fair/

July 2016

MSU Autism Family-Professional Conference

The Henry Center for Executive Management, Lansing, Michigan

Attended talks about current and upcoming research about Autism tailored to professionals and families. Interacted with families and informed them of the research that the HBCL conducts and what they could do to get their children with Autism involved.

Aug. 2016

**Volunteer,** Walk and Roll Safety Day

Michigan State University, East Lansing, Michigan

Volunteered on Saturday, August 27th. Helped with the setup of the event. Purpose was to educate the children and parents in the surrounding community the importance of safety while walking and riding bikes to school.

Sept. 2014 – Oct.

**Volunteer**, Teddy Bear Hospital and Picnic

Michigan State University, East Lansing, Michigan

Volunteered on Saturday, September 13th 2014 and Saturday, October 10th 2015. Helped with running a booth for the Health Behaviors and Cognition Laboratory. Informed parents and children about what the lab does and the upcoming research opportunities for the children to participate in. News article about the event can be found at this link

https://msutoday.msu.edu/news/2017/teddy-bear-picnic-offers-free-family-fun/

2015

# PROFESSIONAL AFFILIATIONS

Jan. 2021-Present	Alzheimer's Association
Jan. 2021-Present	International Society to Advance Alzheimer's Research and Treatment (ISTAART) Member
Jan. 2017- Present	North American Society for the Psychology of Sport and Physical Activity (NASPSPA)
Jan. 2015 – Present Jan. 2015 – Present	American College of Sports Medicine (ACSM) Society for Psychophysiological Research (SPR)

# PROFESSIONAL DEVELOPMENT

August 19 <sup>th</sup> –20 <sup>th</sup> , 2021	Center for Clinical and Translational Science (CCTS) Mock NIH Study Section Reviewer (K and R Series Grants)
May 2013 – Present	CITI Human Subjects Research Training

# **CERTIFICATIONS AND LICENSURES**

Sept. 2015 – Sept. 2021	American Red Cross Adult and Pediatric First
	Aid/CPR/AED