

ADRIAN L. ADAMS, M.S.

Phone: (918) 691-2737
a.l.adams202@gmail.com

Salt Lake City, Utah

EDUCATION

University of Utah (Salt Lake City, UT) Aug. 2020 - present

- Master of Science in Learning and Cognition program, Educational Psychology Department
 - Master's degree awarded Spring 2023
 - Thesis title: Investigating Students' Sensemaking When Engaging in Data Cleaning
- Doctorate of Philosophy in Learning and Cognition program, Educational Psychology Department

The University of Tulsa (Tulsa, OK) Aug. 2016 - May 2020

- Dean's List, 3.81 GPA
- Bachelors' of science in biological sciences and psychology

Oral Roberts University (Tulsa, OK) 2013 - 2016

- Concurrent classes during high school, 4.0 GPA
- General education

RESEARCH EXPERIENCE

Graduate Research Assistant - Univ. of Utah May 2020 - present

Educational psychology, University of Utah

- Development of Expertise in Scientific Observation (Aug. 2022 - Present)
 - Developed and implemented data collection, data management
 - Assisted with logistical planning and organization related to the project
 - Assisted in writing and editing conference papers
- Exploring Students' Learning of Data Analysis in a Three-Dimensional Lab Environment (May 2020-Dec 2022)
 - Analyzed initial responses of prompt-based assessment
 - Revised and improved scoring rubric for assessment
 - Created, implemented, and analyzed think-aloud cognitive interviews, both remote via Zoom and in-person
 - Assisted in writing and editing conference papers and journal articles
- General
 - Mentored undergraduate students in their own research related to science education
 - Consulted and assisted Jason May on his research projects
 - Consulted and assisted Tamara Young on their dissertation research

Internship - University of Utah

Educational psychology, University of Utah

May - Aug. 2019

- Qualitative analysis of video/audio recordings of labs, pilot task-based interviews, and lab reports to determine where and how students engage in data analysis in the first-semester Introductory Physics for the Life Sciences laboratory course at the University of Utah
- Designed and piloted a task-based assessment to assess students' data analysis skills
- Advised course improvements for biologically-based physics experiments
- Attended the American Association of Physics Teachers and Physics Education Research Conferences in Provo, UT, and co-presented poster on summer research
- Presented poster at the Undergraduate Research Symposium on summer research

Research Assistant - Individual Differences Lab (unpaid)

Jan. 2019 - March 2020

Psychology department, University of Tulsa

- General tasks
 - Administering Longitudinal Study sessions 1 and 2 (self-report measures) and session 3 (eye tracking measures and genetic collection by saliva)
 - Filing and data entry for the longitudinal study
 - Head of Qualtrics digitization project of self-report measures
 - Reading and presenting relevant scientific literature to the lab
- Projects
 - Assisted William Bryant, Ph.D. student, with designing presentation for MMPI 2019 conference

Research Assistant - Shadow Lab (unpaid)

Oct. 2017 - Dec. 2018

Psychology Department, University of Tulsa

- Assisting Meredith Ehrhardt, Ph.D. student
 - Needs assessment for the Burmese refugee population in Jenks Public School system
 - Transcribed interviews for qualitative analysis
 - Coded and analyzed interviews for the final report to Jenks Public Schools
- Assisting Kristen Gray, Ph. D. Student
 - Childhood Obesity Study- sleep habits as a predictor of quality of life
 - Assisted literature review and poster design

Biological Research Through Coursework

Aug. 2018 - May 2020

- Field Ecology (BIOL 3164) - Fall 2018
 - Asymmetry in Blackjack Oak (*Quercus marilandica*) Leaves in Relation to Trafficked Roads (unpublished)
- Ornithology (BIOL 3174) - Spring 2019
 - Distribution of Red-Tailed Hawk Morphs in Eastern Oklahoma (unpublished)
- Plant Anatomy (BIOL 3454) - Fall 2019
 - A study of Plastids in Bell Peppers of Different Colors (TEM study) (unpublished)
- Independent Study (Chloroplast Development) - Spring 2020
 - Effects of Artificial Lighting on Chloroplast Ultrastructure and Quantity in Purple Bell Pepper Fruits (unpublished)

Education Research Through Coursework

Jan. 2020 - May 2020

- Independent Study (Neuroscience Education) - Spring 2020

- Applying Three Types of Learning Theories to Teaching Neuroscience (unpublished)

TEACHING AND PROFESSIONAL EXPERIENCE

Instructor - University of Utah Jan. 2024 - Present

- Classes taught:
 - EDPS 2030 Research and Inquiry in Education

Research Mentor - University of Utah Aug. 2020 - Present

- Advised Summer 2023 SURP and SPUR interns
 - Physics education (SURP): Impact of TA and student interactions on student sensemaking
 - Geology education (SPUR): Interplay of instructional scaffolds and group dynamics on students' observations and synthesis in a geology field course
- Advised Summer 2022 UROP interns in physics education
 - Topics: Student and TA/LA interactions in IPLS lab, Student-student interactions in IPLS lab
- Advised undergraduate biology honors student on senior thesis research project
 - Topic: Educational intervention on animal-human relationships
- Advised Summer 2021 REU interns in physics education
 - Topic: Student enactment of creating representations in the IPLS Lab

Polygence Mentor February 2022 - October 2022

- Mentored high school student on project examining how dance classes impact balance and proprioception in older adults

Undergraduate Teaching Assistant - Biology Aug. 2019 - May 2020

- University of Tulsa Biology Department
- TA for Intro to Organismic and Evolutionary Biology Lab (BIOL 1611) and Intro to Molecular and Cellular Biology Lab (BIOL 1711)
 - Assisting instructor in preparing and cleaning labs
 - Grading assignments, quizzes, and exams
 - Assisting and mentoring students during labs

OASiS Tutor May 2017 - May 2019, Aug. 2019 - May 2020

- University of Tulsa Athletics Department
- Courses tutored in person
 - Intro to Evolutionary and Organismic Biology (BIOL 1611L+1603), Intro to Molecular and Cellular Biology (BIOL 1711L+1703), General Chemistry 1 & 2 (CHEM 1013+1011L, 1023+1021L), Intro to Statistics (STATS 2013), Research Methods (PSY 3013), Plagues and Pestilence (BIOL 1053), Exposition and Argument (ENGL 1033), Neuropsychology and Psychopharmacology (PSY 4083), Foundations of Psychology (PSY 2253), Culture, People, and Nature: General Anthropology (ANTH 1063), Field Ecology (BIOL 3164), Intro to Indoor Air Quality (BIOL/CHEM 1123), Genetics (BIOL 2124)
- Courses tutored online due to COVID-19
 - Intro to Molecular and Cellular Biology (BIOL 1711L+1703), General Chemistry 1 (CHEM 1013+1011L)

PUBLICATIONS AND CONFERENCE PAPERS

Journal Articles

May, J. M., Barth-Cohen, L. A., Gerton, J. M., de Grandi, C., & Adams, A. L. (2022). Student sensemaking about inconsistencies in a reform-based introductory physics lab. *Physical Review - Physics Education Research* 18, 020134

Thesis/Dissertation

Adams, A. L. (2023). Investigating Students' Sensemaking when Engaging with Anomalous Data (Order No. 30243745). Available from Dissertations & Theses @ University of Utah; ProQuest Dissertations & Theses Global. (2777117517).

American Educational Research Association

Barth-Cohen, L., Zummo, L., Braden, S., Adams, A. L., & Godsey, H. (2023). Sense-Making About Geologic Features That Are Spatially Adjacent and Chronologically Distant. [Talk]. *American Educational Research Association Conference, Chicago, IL.*

Adams, A. L., May, J. M., Barth-Cohen, L. A., & De Grandi, C. (2021) Developing an Assessment to Investigate Data Analysis in Introductory Physics. [Poster]. *American Educational Research Association Conference, Virtual.*

Physics Education Research Conference

Barth-Cohen, L., Young, T., Jason, M., & Adams, A. (2023) Acquisition of qualitative video data: methods and reflections in PER. [Poster]. *Physics Education Research Conference, Sacramento, CA.*

May, J. M., Barth-Cohen, L. A., & Adams, A. L. (2021) Students' productive strategies and representational competencies when generating graphs: An undergraduate laboratory case study. [Poster]. *Physics Education Research Conference, Virtual.*

National Association for Research in Science Teaching Conference

Adams, A. L., Barth-Cohen, L. A., & May, J. (2022) Investigating Student Response to Anomalous Data When Analyzing and Interpreting Data. [Talk] *National Association for Research in Science Teaching Conference, Vancouver, B.C. Canada.*

National Conference in Clinical Child and Adolescent Psychology

Gray, K., Ehrhardt, M., Ali, L., Hendrix, A., Hemming, E., Brewer, A., Adams, A., Rodriguez, H., Rhudy, J. L., & Shadlow, J. O. (2018). Factor analysis of a brief sleep habits questionnaire: Do sleep habits predict quality of life in obese children? [Poster]. 2018 *National Conference in Clinical Child and Adolescent Psychology, Kansas City, MO.*

Ehrhardt, M., Gray, K., Ali, L., Hendrix, A., Hemming, E., Brewer, A., Adams, A., Rodriguez, H., Rhudy, J. L., & Shadlow, J. O. (2018). Childhood obesity and the moderation of sleep habits in parent- and child-reported quality of life. [Poster]. 2018 *National Conference in Clinical Child and Adolescent Psychology, Kansas City, MO.*

PRESENTATIONS AND CONFERENCES

Society for the Advancement of Biology Education Research

July 19-23, 2023, Minneapolis, MN

- Presented short talk "Exploring Student Sensemaking when Engaging with Anomalous Data"
- July 7 - 10, 2022, Minneapolis, MN
- Presented poster "Exploring Student Sensemaking When Engaging in Data Cleaning"
- July 2021 - Online due to COVID-19
- Attended
- July 2020 - Online due to COVID-19
- Attended

2022 NSF-IUSE Summit

June 1 - 3, 2022, Washington, D.C.

- Presented poster "Exploring Students' Learning of Data Analysis in a Three-Dimensional Lab Environment"

National Association for Research in Science Teaching Conference

March 27 - 30, 2022 - Vancouver, B.C., Canada

- Talk presented "Investigating Student Response to Anomalous Data When Analyzing and Interpreting Data"
- Session presider

American Education Research Association Conference

April 8 - 12, 2021 - Online due to COVID-19

- Presented "Developing an Assessment to Investigate Data Analysis in Introductory Physics"

Association of Physics Teachers/Physics Education Research Conferences

July 31 - August 5, 2021 - Online due to COVID-19

- AAPT Contributed talk: Investigating Student Decision-Making when Engaging in Data Cleaning
- PERC Poster: Investigating Students' Process of Data Cleaning

July 19 - July 24, 2020 - Online due to COVID-19

- Attended

July 20 - July 25, 2019 - Provo, UT

- Co-presented poster "Exploring Students' Enactment of Data Analysis Practices in Interdisciplinary IPLS Laboratory Courses" at PERC

23rd Annual Student Research Colloquium

April 2020

The University of Tulsa

- Cancelled due to COVID-19
- 20-minute talk: "Applying Three Types of Learning Theories to Teaching Neuroscience"

University of Utah Summer Symposium

Aug. 1, 2019

- Presented poster "Aspects of Data Analysis in an Introductory Physics for the Life Sciences (IPLS) Laboratory Course"

HONORS AND AWARDS

Phyllis Allen Jex Memorial Scholarship (University of Utah)

May 12, 2022

- \$9,000 awarded to graduate students in the educational psychology department

Albert Pat Blair Award for Outstanding Academic Achievement in Biology (University of Tulsa) Apr. 6th, 2020

- Awarded to graduating seniors in the biology department with high academic performance

Outstanding Senior Award (University of Tulsa) Dec. 11th, 2019

- Awarded to psychology department undergraduates in their final year to those who "excel in multiple areas including coursework, departmental development, research productivity, and community service."

Freeland Faculty Award (University of Tulsa) Spring 2019

- \$500 awarded to junior-level biological sciences students with an interest in botany

Scholastic Art and Writing Competition

- **National Silver Medal for "Innocence Forgotten"** 2016
 - Also received Regional Gold Key
- **Regional Silver Key for "Like a Clumsy Monkey"** 2016

GRANTS

University of Tulsa, Office of Research Spring 2020

- \$500 grant for "Effects of Artificial Lighting on Chloroplast Ultrastructure and Quantity in Purple Bell Pepper Fruits"

PROFESSIONAL AFFILIATIONS

Student Insurance Advisory Committee 2021-2022

University of Utah

- Graduate representative for student health insurance

College of Education Student Council 2020 - Present

University of Utah

- Representative for Learning and Cognition program

Educational Psychology Student Advisory Committee

University of Utah

2020 - Present

- Representative for Learning and Cognition program
- Assist in departmental faculty reviews

University of Tulsa Alumni Association 2020 - Present

Alma Mater Alumni Association

- Member

Beta Beta Beta, Pi Alpha Chapter 2018 - 2020

Biological Honor Society

- Member

2018 - 2019: Historian

- Assembled scrapbook representing the academic year for the chapter, presented at the South Central Regional Beta Beta Beta Conference in April 2019
- Participated in events such as the biannual plant sales for fundraising, and STEM Fair for local high school and middle school students

Psi Chi, University of Tulsa Chapter 2018 - 2020

Psychological Honor Society

- Member

2019 - 2020: Secretary

- Create flyers for Psi Chi events, send email announcements of events to members and students on email list
- Collaborate with other officers to design events
- Designed survey to gauge student interests, and supported formation of TU Psychology Club
- Participated in prospective student events as a student ambassador for the psychology department

TU Psychology Club, University of Tulsa Jan. 2020 - May 2020

- Member, Executive Committee Member
 - Involved in the initial formation of the club
 - Helped draft club charter and constitution
 - Liaison for executive committee to other committees (planning, communications, membership, volunteer)

Phi Eta Sigma, University of Tulsa Chapter 2017 - 2020

First-Year Honor Society

- Member

COMMUNITY SERVICE

One Voice in aChord 2021 - Present

Salt Lake City, UT

- Member of community choir
- Tenor section leader October 2023 to Present
 - Participate in board meetings, support fellow tenor singers

Ruff Haven Crisis Sheltering 2021 - 2022

Salt Lake City, UT

- Entertain and care for resident cats

Transmission Ministry Collective 2020 - 2021

- Transgender-led online ministry
- Leadership cohort member
- Discord moderator January - December 2021

Baptist Collegiate Ministries 2016 - 2020

University of Tulsa

- Bassist and vocalist for worship band

OTHER WORK EXPERIENCE

Data Annotation 2023 - Present

DataAnnotation.tech

- Evaluate AI responses to prompts for accuracy and quality

Courtyard Maintenance 2017 - 2019 Growing Seasons

University of Tulsa

- Removal of weeds, control and care of native plants in courtyard
- Cleaning of courtyard ponds and streambed
- Control of leaf litter
- Feeding of turtles (three-toed box and red-eared sliders)
- Train others in optimal care of the atrium

Bookseller (seasonal) Oct. – Dec. 2015

Books-A-Million (Tulsa, OK)

- Shelves books in all sections of the store
- Unloaded and sorted shipments
- Assisted customers

COMPUTER SKILLS

Programming: HTML

Applications: Microsoft Office Suite, ATLAS.ti, NVivo, SAS, SPSS, Qualtrics, R

Platforms: Windows

OTHER

Training

- CITI training for social and behavioral research (record ID: 24740569)
- CITI training for biomedical research (record ID: 30020360)

REFERENCES

Marsha Howard, M.S.

-Undergraduate advisor and supervisor for TA position at the University of Tulsa

-Email: marsha-howard@utulsa.edu

-Phone: 918-631-3944

Dr. Lauren Barth-Cohen

-M.S. and Ph.D. advisor and research supervisor at the University of Utah

-Email: lauren.barthcohen@utah.edu

-Phone: 801-581-7148