

EMMANUEL A.

eadeloju[at]asu[dot]edu | [Website](#) | [LinkedIn](#)

Human-AI Interaction | UX Research | LLM Evaluation | Mixed Methods | Quantitative Research

PROFESSIONAL SUMMARY

PhD researcher in Human-AI Interaction specializing in mixed-methods UX research, LLM evaluation, and data-sensemaking. Experienced in designing and conducting qualitative studies (user interviews, think-aloud protocols, thematic analysis, behavioral coding), quantitative research (surveys, inferential statistics, experimental design), and end-to-end program evaluation for multi-stakeholder technology initiatives. Skilled at translating complex findings into actionable insights for cross-functional teams including product, policy, and engineering stakeholders.

EDUCATION

PhD, Learning Literacies and Technology Arizona State University	Expected 2027
MSc, Cell Biology and Genetics University of Lagos	2021 –2022
Postgraduate Diploma in Education National Teachers Institute Kaduna	2018 –2019
BSc, Biochemistry Osun State University	2012 –2016

SKILLS

UX Research Methods: User interviews, A/B testing, ethnography, surveys, user interviews, focus group, think-aloud protocols, contextual inquiries, usability testing & evaluation, mixed-methods research, journey mapping, participatory co-design, behavioral coding, thematic analysis, interaction analysis, content analysis, document analysis

Quantitative Methods: Experimental design, controlled studies, randomized group assignment , A/B testing, inferential and descriptive statistics, hypothesis testing, regression analysis, ANOVA, factor analysis, comparative group analysis, dose/dependent-variable response analysis, data cleaning & interpretation

AI / LLM: Model evaluation, LLM evaluation, Human-AI interaction, machine learning, fairness and responsible AI

Software: MAXQDA, Qualtrics, SPSS, Figma, Miro, Excel

Programming: Python, R, SQL (basic)

EXPERIENCE

DISSERTATION RESEARCH

09/2025 – Present

- Led a longitudinal qualitative study (6 months) of how educators adopt and make sense of LLM based tools, conducting mixed-methods UX research (interaction analysis, semi-structured user interviews, thematic analysis, document analysis) and contextual inquiry across a multi-phase professional-learning journey from first exposure to real-world implementation.

- Designed and ran a comparative multiple-case study tracing users across three adoption stages, learner, designer, implementer, to map how mental models, workflows, and trust in AI evolve over time; surfaced stage-specific usability barriers and behavioral shifts in human-LLM interaction.
- Captured and analyzed screen recordings and think-aloud transcripts of user-LLM sessions, developing a parsimonious, reliability-tested behavioral codebook (6 codes) to identify friction points, breakpoints, and pivotal moments in real-time AI tool use.
- Identified recurring interaction breakdowns (e.g., tool failures, output-trust gaps, prompt-iteration struggles) and traced users' adaptive recovery strategies, producing evidence-based insights into how non-expert users troubleshoot and re-engage with generative AI tools; contributing to human-centered model evaluation criteria for LLM-based products.
- Translating qualitative findings into an operationalized analytic framework linking observable user behaviors to higher-level constructs, creating an auditable observation-to-insight pipeline suitable for cross-participant comparison and stakeholder reporting.
- Synthesizing findings on data-sensemaking workflows with LLMs into actionable design implications for AI tool onboarding, scaffolding, and trust calibration for first-time and recurring users.
- Designing SciGroundBench, a structured LLM evaluation benchmark operationalizing data-sensemaking as a measurable human-AI interaction task.

UL RESEARCH INSTITUTES & ARIZONA STATE UNIVERSITY

2024 –2025

Program and Research Lead Analyst: Xplorlabs Fellowship

- Spearheaded mixed-methods product UX research and end-to-end program evaluation for the Xplorlabs platform, a multi-stakeholder K-12 safety science initiative engaging 23 educators and 5 student fellows across 8 US states to generate evidence-based insights for leadership and product stakeholders.
- Executed quantitative analysis of formative and summative survey data (descriptive and inferential statistics) to assess teacher engagement, implementation challenges, and pedagogical alignment; translated findings into prioritized recommendations adopted by program leads.
- Co-developed and validated survey instruments against evaluation objectives across measurement waves, ensuring construct validity, instrument coherence, and longitudinal comparability between formative and summative assessments.
- Conducted in-depth user interviews with student fellows and synthesized findings into journey maps spanning project ideation, pivots, community engagement, and implementation, applying thematic coding grounded in the Action-Oriented Pedagogies (AOP) framework to surface design insights on agency, partnerships, and barriers to youth-led action.
- Field documentation protocols (photo capture, observation notes, artifact logging) across workshops, convenings, and conferences, producing a longitudinal evidence corpus that enabled triangulation across quantitative and qualitative streams.
- First-authored comprehensive evaluation reports communicating findings and storytelling with data for cross-functional stakeholders (university leadership, industry research partners, K-12 educators); presented insights at conferences.
- Facilitated a research-grounded professional development session at Community of Practice co-design workshop, translating ongoing evaluation insights into actionable implementation guidance for educators adopting AOP in science classrooms.

GRADUATE TEACHING ASSISTANT

Spring 2025

COE 502: Introduction to Data Analysis (Dr. Audrey Beardsley)

- Led weekly applied statistics lab sections for graduate students across an 18-module quantitative curriculum spanning descriptive statistics, probability distributions, hypothesis testing, correlation, linear regression, one-way and factorial ANOVA, chi-square, and nonparametric methods; delivered end-to-end workflows in SPSS and Excel from data wrangling through interpretation and write-up.
- Taught full modules independently, translating statistical theory into decision frameworks for selecting appropriate quantitative methods, drawing valid inferences from noisy real-world data.
- Tutored students on reliability, validity, and threats to validity in measurement design, reinforcing the instrumentation that underpins scale validation, survey construction, and psychometric approaches central to UX survey research.

RELEVANT COURSEWORK

APM 527: Deep Neural Network: neural architecture, backpropagation, deep learning

EE 549: Statistical Machine Learning: classification, supervised learning, model evaluation

PAF 513: Foundations of Data Science (R): data wrangling, visualization, reproducibility

COE 502: Introduction to Data Analysis: applied statistics, SPSS, psychometrics

STP 530: Applied Regression Analysis: linear and logistic regression, model fit, residuals

AWARDS

- CVPR26 Broadening Participation Scholarship Award
- 2026 College Dissertation Research Grant
- 2025 Mary Lou Fulton Endowment Scholarship
- 2025 Graduate Support Award

INVITED GUEST TALKS

- 2026: AI for Social Science Research, Arizona State University
- 2025: Introduction to LLM for Data Sensemaking, ASU Preparatory Academy, Phoenix, AZ

PUBLICATIONS & CONFERENCE

Peer-Reviewed Papers

Adeloju, E., Mishra, P., McCaleb, L., Oster, N., & Jongewaard, R. (in press). Designing in uncertainty: GenAI and creative agency in a graduate seminar. *Journal of Instructional Design and Technology*.

Adeloju, E., McCaleb, L., Jongewaard, R., Oster, N., & Mishra, P. (2026). Socio-Emotional Learning in AI K-12 Guidance and Policy Documents: A Gap Analysis. *Proceedings of the Learning Engineering Research Network Convening (LERN 2026): From Insights to Implementation, Learning Engineering in Action*. doi:10.59668/2551.25384

Meza-Torres, C., Jordan, M., Zuiker, S., Jongewaard, R., & **Adeloju, E.** (2024). Examining Teacher Supports for Visibility, Believability, and Meaningfulness in Place-Based Citizen Science. *Proceedings of the 18th International Conference of the Learning Sciences (ICLS 2024)*, pp. 2409–2410. International Society of the Learning Sciences.

Conference and Workshop Papers/Presentations

Adeloju, E., McCaleb, L., Jongewaard, R., Oster, N., & Mishra, P. (2026). From Policy to Design: Uncovering Socioemotional Risks in Generative AI Systems for Education. Humans of Generative AI Workshop @ CVPR 2026, Denver, CO.

Jongewaard, R., McCaleb, L., Oster, N., **Adeloju, E.,** & Mishra, P. (2026). Social and Emotional Dimensions of Generative AI Use. Learning Engineering Research Network Convening (LERN 2026).

Jordan, M., **Adeloju, E.,** Weinberg, A. Oster, N., & Anayatova., D. (2026, April 19-22). Opportunities for Student Agentic Action in K-12 Sustainability Education: A Systematic Review [Conference presentation]. Ninety-ninth Annual NARST International Conference, Seattle, Washington, United States.

Adeloju, E., Jordan, M., Suloff, S., Oster, N., & Weinberg, A. (2026, April 19-22). In-Service Teachers Cultivating Student Agency through Safety Science: An Evaluation Report [Conference presentation]. Ninety-ninth Annual NARST International Conference, Seattle, Washington, United States.

Adeloju, E., McCaleb, L., Jongewaard, R., Oster, N., & Mishra, P. (2026, Feb 20). Socio-Emotional Learning in AI K-12 Guidance and Policy Documents: A Gap Analysis [Conference presentation]. The Doctoral Council at the Teachers College Conference, Tempe, AZ, United States.

Adeloju, E., McCaleb, L., Jongewaard, R., Oster, N., & Mishra, P. (2026, Feb 3-4). Socio-Emotional Learning in AI K-12 Guidance and Policy Documents: A Gap Analysis. In Craig, S. D., Arner, T., & McNamara, D. S. (Eds.), Proceedings of the Learning Engineering Research Network Convening (LERN 2026): From Insights to Implementation, Learning Engineering in Action. LERN Convention Proceedings. <https://doi.org/10.59668/2551.25384>

Jordan, M., Meza-Torres, C., Jongewaard, R., Zuiker S., & **Adeloju, E.** (2025, March 22-26). Building a regional network of school-based citizen scientists for sustainable energy futures [Conference presentation]. In Silova, I. (chair), Education for Planetary Futures (part 2): Disrupting, Reimagining, and Co-Designing Pedagogies on the Edge symposium. Comparative and International Education Society (CIES) Conference Chicago, IL, United States.

Jordan, M., Weinberg, A., **Adeloju, E.,** & Oster, N. (2025, March 7). Formative Assessment Report #3: Xplorlabs Educator Fellowship Community of Practice (CoP). Arizona State University, Tempe, AZ.

Meza-Torres, C., & **Adeloju, E.** (2025, April 23-27). Reimagining School-based Citizen Science for Sustainable Futures: K-12 teachers fostering visibility, believability, and meaningfulness [Conference presentation]. In Weinberg, A. (chair), Education for Imagining and Advancing Preferred Planetary Futures. AERA Conference Denver, CO, United States.

Adeloju, E., Jordan, M., & Meza-Torres, C. (2025, February 21). Machine Learning for Validating Citizen Science Data: A Case Study with High School Students in Agri-Photovoltaics Project in the Sonoran Desert Region [Conference presentation]. The Doctoral Council at the Teachers College (TCDC) Conference, Tempe, AZ, United States.

Jordan, M., Weinberg, A., **Adeloju, E.,** & Oster, N. (2024, November 22). Formative Assessment Report #2: Xplorlabs Educator Fellowship ULRI Annual Research Symposium [Conference presentation]. Atlanta, GA.

Jordan, M., Weinberg, A., **Adeloju, E.**, & Oster, N. (2024, August 30). Formative Assessment Report #1: Xplorlabs Educator Fellowship Summit [Conference presentation]. Arizona State University, Tempe, AZ.

Adeloju, E., & Jordan, M. (2024, February 9). Impact of storytelling on the academic grades and interest of 10th grade chemistry students. The Doctoral Council at the Teachers College (TCDC) Conference, Tempe, AZ, United States.

Meza-Torres, C., Jordan, M., Zuiker, S., Jongewaard, R., & **Adeloju, E.** (2023). Fostering meaningfulness, visibility, and believability in youth engagement with place-based citizen science data. Scholarly Consortium for Innovative Psychology in Education (SCIPIE). Portland, Oregon.