Tricia Guerrero

I am an education researcher with 15+ years of experience in public education supporting student success and 8+ years of experience conducting qualitative and quantitative research with educational technologies to support student learning. I have expertise in comprehension and learning as well as instructional interventions to support learning for underserved student populations.

SELECTED EXPERIENCE

University of Illinois at Chicago

August 2017 – June 2023

Education Researcher

- Executed behavioral experiments to understand how students comprehend, reason, and apply knowledge within a web-based intelligent tutoring system resulting in the publication of 10 peerreviewed journal articles and 2 book chapters
- Collect, analyze, and build models from experimental data with a special focus on interventions for at-risk, underserved, and neurodivergent students resulting in 40+ scientific presentations at national and international venues
- Conducted moderated user interviews (online and in-person) to assess user behaviors and analyze user flow, ultimately leading to the inclusion of a new feature that enhanced the adaptivity of the web-based educational technology for neurodivergent populations and increased grades of at-risk students by 10%

Honors College Instructor / Psychology Teaching Assistant

- Develop and lead lectures for up to 100 undergraduate psychology students in research methods, statistics, memory and cognition, and a newly developed honors course on text comprehension and reasoning with 4.9/5 overall student evaluation score across 10 semesters
- Provided comprehensive support at every stage for up to 25 student research projects, effectively guiding and facilitating successful project completion for junior researchers in undergraduate laboratory research course

Arizona State University

March 2015 – July 2017

Educational Research Specialist

- Achieved significant improvements to the user interface of a web-based tutoring system through comprehensive testing (user interviews, wireframing, MVP usability test, A/B test) and analyzing user behavioral outcomes and log data to obtain data-driven insights that effectively enhance the responsiveness and adaptivity of the system, resulting in an enhanced overall user experience
- Successfully managed end-to-end recruitment and data collection efforts of children by collaborating with administrators from 10 school districts, ensuring the timely completion of the project while maintaining a high standard of data quality

East Valley Institute of Technology

March 2008 - May 2015

Director of Culinary Arts & Special Projects Leader

- Led training and development of over 200 students in K12 environment achieving 92% postgraduation placement rates over 5-year period
- Directed school leadership support team resulting in increased student enrollment by 21% by designing school-wide extracurricular program
- Designed nationally accredited American Culinary Federation Education Curriculum which led to a reduced education cost of \$65 per student and led to consistently obtaining #1 Culinary CTE scores in the state

Scottsdale Community College

August 2008 - May 2015

Advisory Board Member

 Advised on course development, degree completion requirements, and job training and placement in accordance with higher education policies

EDUCATION

Ph.D., Psychology, UIC **M.A.**, Psychology, UIC **B.S.**, Psychology, ASU

TOOLS

R

SPSS

Python

Qualtrics Tableau

Microsoft Office

- Excel, Word, PowerPoint Google Suite

III. RESEARCH SKILLS

Qualitative Research Methods

- User Interviews
- Focus Groups
- Usability Testing

Quantitative Research Methods

- Survey Design
- A/B testing

Data Analysis & Visualization

- Multi-level modeling
- Regression
- ANOVA
- Factor Analysis
- Data Science/ Machine Learning Methodology

Natural Language Processing Writing Research Summaries Presenting Research Findings

RESEARCH ACHIEVEMENTS

12 publications
42 conference presentations
\$200k+ in research grants
24 undergraduate mentees
10 courses taught

♀ SELECTED AWARDS

National Science Foundation Graduate Research Fellow UIC Access to Excellence Fellow