# Lourdes M. Acevedo-Farag



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### **Education**

OCT 2022 -PRESENT **UNIVERSITY OF CALIFORNIA, IRVINE** 

Teaching, Learning, and Educational Improvement

Ph.D. in Education | Expected: June, 2027

M.A. in Education | June 2025

OCT 2008 -JUN 2010 **UNIVERSITY OF CALIFORNIA, LOS ANGELES** 

M.Ed. - Urban Education and Social Justice | June, 2010

Multiple Subject Bilingual, Cross-Cultural, Language, and Academic Development Credential

OCT 2004 -JUN 2008 **UNIVERSITY OF CALIFORNIA, LOS ANGELES** 

B.A. in Sociology | June 2008

Minor in Education

#### **Publications**

- 8 **Acevedo-Farag, L. M.**, Guo, S., Kim, Y., Romero, L., Yu, X., Begolli, K. N., Bustamante, A. S., & Ahn, J. (under review). Structuring Math Play: Micro-Level Task Design Through Teacher Co-Design. *Educational Designer*
- 7 **Acevedo-Farag, L. M.**, Guo, S., Kim, Y., Romero, L., Yu, X., Begolli, K. N., Bustamante, A. S., & Ahn, J. (under review). Playful Designs, Tangible Consequences: Fraction Ball and the Collective Practice of Learning. *Mind, Culture, and Activity*
- 6. Lawrence, L., Ochoa, K., **Acevedo-Farag, L.M.**, Begolli, K., Garcia, D., Bustamante, A., & Ahn, J. (under review). What design ideas do we implement? A retrospective analysis of decision making in design-based implementation research. Journal of the Learning Sciences.
- 5 Begolli, K. N., Guo, S., **Acevedo-Farag, L.M.**, Sanchez, G., Yu, X., Kim, Y., Vu, M., Hernandez, L., Ahn, J., Bailey, D., Bustamante, A., Rhodes, K., & Richland, L. (under review). Enhancing flexible transfer of fractions: The role of sequential and simultaneous games with multiple representations. *Cognitive Science*.
- 4 Salazar, J., Seccia, I. T., Maldonado, J., Hernandez, L., Bermudez, V., **Acevedo-Farag, L. M.**, Ahn, J. & Bustamante, A. S. (2025). Sustaining Latine Families' Cultural Values through Technological Mediation Practices. *Journal of Latinos and Education*. https://doi.org/10.1080/15348431.2024.2444942
- 3 Begolli, K.N., Bermudez, V.N., Lawrence., L.M., Alvarez-Vargas, D., **Acevedo-Farag, L.M.**, Valdez, S., Ahn, J., Rhodes, K., Bailey, D.H., Richland, L., & Bustamante, A. (2024) *Incorporating Design-Based Implementation Research with a Randomized Controlled Trial to promote and evaluate the efficacy of playful rational number learning*. Contemporary Educational Psychology. <a href="https://doi.org/10.1016/j.cedpsych.2024.102296">https://doi.org/10.1016/j.cedpsych.2024.102296</a>
- 2 Guo, S., Bailey, D.H., Rhodes, K., Begolli, K.N., Bermudez V.N., Lawrence, L., Alvarez-Vargas, D., **Acevedo-Farag, L.M.**, Ahn J., Bustamante, A.S., & Richland, L.E. (2024) *Buckets of Fun: Impacts of Fraction Ball on Students' Math-Related Emotions*. Journal of Applied Developmental Psychology. DOI: 10.1016/j.jecp.2023.105777

1 - Alvarez-Vargas, D., Begolli, K.N., Choc, M., **Acevedo-Farag, L.M.**, Bailey, D.H., Richland, L., & Bustamante, A.S. (2024)*Fraction ball impacts on student and teacher math talk and behavior.* Journal of Experimental Child Psychology. Vol. 239, DOI: https://doi.org/10.1016/j.jecp.2023.105777

# **Manuscripts in Preparation**

**Acevedo-Farag, L.M.**, ... Bailey, D.H., Bustamante, A. (*in preparation*). Fraction Ball at Scale: Advancing Rational Number Understanding through Embodied, Play-Based Learning

## **Conference Presentations**

- 5 Guo, S., Begolli, K.N., **Acevedo-Farag, L.M.**, Sanchez J.G., Rhodes, K., Ahn J., Richland, L.E., Bustamante, A.S., & Bailey, D.H. (Accepted). Examining the Effectiveness of Playful Math Games on Adding Fractions. In Sella F. (Chair), From Games to Gains: Enhancing Early Numeracy through Play and Technology. The Mathematical Cognition and Learning Society, Washington, D.C
- 4 **Acevedo-Farag, L. M.**, Bustamante, A. S., Mayes, A., Smith, A., & Purpura, D. (2023, March). *The Strengths, Challenges, and Lessons Learned About Co-Design: An Equity-Based Approach to Designing Instructional Materials*. Society for Research in Child Development (SRCD), Salt Lake City, Utah.
- 3 Bustamante, A. S., Begolli, K. N., Bermudez, V., Lawrence, L., Alvarez-Vargas, D., Valdez, S., **Acevedo-Farag, L. M.**, Richland, L., Rhodes, K., Ahn, J., & Bailey, D. H. (2023, March). *Fraction Ball: Iterative Design and Classroom Expansion of a Play-Based Rational Number Intervention.* In paper symposium session *Experimental Mathematics Intervention in Classrooms and Schoolyards to Promote Early Numeracy and Rational Number Learning.* Society for Research in Child Development (SRCD), Salt Lake City, Utah.
- 2 Bustamante, A. S., Begolli, K. N., Alvarez-Vargas, D., Bailey, D., Richland, L., **Acevedo-Farag, L.**, & Gonzalez, I. (2021, April). *Fraction Ball: A Playful Learning Intervention that Improves Children's Rational Number Knowledge*. In paper symposium session *Translating Findings from Cognitive Science to Improve Fraction Learning in the Classroom and the Playground*. AERA 2021 Virtual Meeting.
- 1 Bustamante, A. S., Daviss, M., **Acevedo-Farag, L. M**., Gonzalez, I., Zavala, J. (2022, March) *Let's Take the Learning Outside: Creating Playful Learning Landscapes*. California Charter School Conference. Long Beach, California

#### **Poster Presentations**

- 3 Rhodes, K. T., **Acevedo-Farag, L. M.**, Begolli, K., Bailey, D. H., Guo, S., Bustamante, A. S., Ahn, J., & Richland, L. E. (2024). *Diagnosing fraction misconceptions: Illustrating the development of a concept inventory for use with diagnostic cognitive assessment*. Poster submitted for the 2024 Mathematical Cognition and Learning Society (MCLS) Conference.
- 2 **Acevedo-Farag, L. M.**, Guo, S., Garcia, D. I., Sánchez, J. G., Kim, Y., Hernandez, L., Romero, L., Bustamante, A. S., Begolli, K., & Ahn, J. (2024). *Unpacking Play and Learning through the Experience of Teachers and Students*. Poster presented at the annual meeting of the American Educational Research Association (AERA), Philadelphia, PA.
- 1 Shenting, E., Alvarez-Vargas, D., Lawrence, L., Ochoa, K., **Acevedo-Farag, L. M.**, Cao, Z., Rhodes, K., Bustamante, A. (2023). "Sparking" Math Talk in a Fraction Ball Classroom Lesson Poster presented at the International Conference of the Learning Sciences (ICLS), Montreal, Canada.

# **Research Experience**

OCT 2022 -SEPT 2025

#### **Graduate Student Researcher**

University of California, Irvine School of Education

Funder: EF+Math Program of the Advanced Education Research and Development Program

PI: Andres S. Bustamante, Associate Professor

Project: Fraction Ball - A play-based rational number intervention

- -Co-led the iterative design and implementation of *Fraction Ball*, an equity-centered math intervention for 4th–6th grade students that integrates fraction and decimal learning into physically active, basketball-themed games on a custom-designed court.
- -Collaborated closely with teachers and school administrators in a Design-Based Implementation Research (DBIR) framework to ensure the intervention was contextually relevant, instructionally rigorous, and developmentally appropriate.
- -Supported randomized controlled trial (RCT) execution by preparing materials, coordinating implementation logistics, and collecting qualitative and quantitative data across multiple schools.
- -Conducted classroom debriefs, co-design sessions, and post-intervention reflections to iteratively refine game structures, academic tasks, and alignment with the Integrated Theory of Numerical Development.
- -Analyzed data for multiple manuscripts on student engagement, executive function, and equity in play-based math learning; presented findings at national conferences including AERA and MCLS.

#### SEPT 2019 -JUN 2022

#### TEACHER CONSULTANT, FRACTION BALL INTERVENTION

University of California, Irvine | School of Education

PI: Andres S. Bustamante, Associate Professor

Project: Fraction Ball - A play-based rational number intervention

- -Co-designed and implemented a math intervention for fourth through sixth-grade students that used a set of basketball-related games on a court that was designed to reflect fractions and decimals along the three-point and free-throw lines.
- -Administered pre- and post-evaluations, and provided feedback about educational standards and common practices within the K-12 classroom setting.

#### JUN 2009 -JUN 2010

#### **GRADUATE SCHOOL RESEARCHER**

University of California, Los Angeles | Teacher Education Program Sara Kersey, Professor

Investigated and analyzed whether an integrated science curriculum increases student engagement and achievement.

**Focus:** What happens when connecting all content areas through a core subject, such as science, is used to increase student engagement and improve academic achievement?

#### SEPT 2006 -JUN 2007

## UNDERGRADUATE RESEARCHER, EDUCATION DEPT

University of California, Los Angeles | Educators for Tomorrow Program

Patrick Camangian,

Explore and examine the factors that affect a marginalized student's persistence through higher education in urban communities.

**Focus:** When comparing Latine students with differing academic success as defined by the timing of their exit from the education pipeline, what factors in their lives are consistent with academic success, and which factors correlate to an early exit from the educational pipeline?

# Mentorship

SEPT 2025 - UCI NEXT GEN PATHWAYS

PRESENT University of California, Irvine

Mentees: Aaron Cao, Alexa Briseno, Christine Le, Melia Asato, Priscilla Garcia

APR 2025 - DIGITAL DASHBOARD DEVELOPMENT

AUG 2025 University of California, Irvine

Mentees: Celia Maturana, Gordon Ma, Michelle Sofian, Vy Vu

AUG 2023 - CURRICULUM DEVELOPMENT

PRESENT University of California, Irvine

Mentees: Chloe Lindo, Estefania Gallardo, Lizbeth Romero, Matthew Tullgren, Haidi Peñaloza-

Torrez

JUN 2023 - QUALITATIVE DATA ANALYSIS

SEPT 2023 University of California, Irvine

Mentees: Deja Richardson, Lizbeth Romero, Nayelly Barron, Xianggian Yu

JAN 2023 - QUALITATIVE DATA ANALYSIS

JUN 2023 University of California, Irvine

Mentees: Lizbeth Romero, Xiangqian Yu, Yoori Kim

# **Facilitated Workshops and Invited Talks**

**Acevedo-Farag, L. M.** (2025, April). Guest speaker, Centering the Pendulum Podcast. Shared insights on playful learning and math education. Link

**Acevedo-Farag, L. M. & Salazar, J.** (2024, February). *Qualitative Research Workshop*. University of California, Irvine. Facilitated workshop for graduate students on qualitative coding and research design.

Acevedo-Farag, L. M., Han, J., Ritchie, D., & Salazar, J. (2024, January). *Panelist, CP-LEADS Fellows Program*. University of California, Irvine. Participated in panel discussion on research lab experiences and career pathways in education, analytics, and data science.

# **Teaching Experience**

**EDUC 146 - EDUCATION, LEARNING, AND CULTURE** 

University of California, Irvine

Teacher's Assistant

2024 EDUC 50 - ISSUES IN K-12 EDUCATION

University of California, Irvine

Guest Lecture - Addressing Educational Inequality through School Choice

SOCIAL ITERATIVE ENGAGED MEANINGFUL (STEM) LEARNING LAB

University of California, Irvine

Guest Lecture - Qualitative Research

# **Media Coverage**

Byrd, C. (2025, March) Women's History Month: Honoring Five Incredible Changemakers in Education. Featured for research and practice bridging theory and classroom via the Fraction Ball project, and for efforts to improve equity in STEM through play-based learning and partnerships. <u>Link</u>

Arendel, K. (2024, August). Swish: Teaching Fractions on the Basketball Court. K–12 Dive. Quoted in article highlighting the Fraction Ball intervention and its impact on student engagement and learning. Link

National Council of Teachers of Mathematics (NCTM). (2024). *Video showcase feature*. Featured in a practitioner-facing video highlighting Fraction Ball at the NCTM Annual Conference. <u>Link</u>

Centering the Pendulum Podcast. (2024). *Guest appearance with Lourdes M. Acevedo-Farag.* Discussed playful learning and math education. Link

# **Fellowships**

AUG 2022 -SEPT 2022

## **Competitive Edge Summer Research Program (\$5,000)**

University of California, Irvine

Funding for advanced entry into graduate training and enrollment in eight-week summer research and professional development program

#### **Awards & Honors**

MAR 2025

Featured for Women's History Month, UCI School of Education.

# **Professional Experience**

AUG 2024 -PRESENT

#### **Chief Curriculum Officer**

Juego! | Remote

- -Lead the development of a comprehensive, playful, and standards-aligned K–5 math curriculum with a focus on Common Core Math State Standard alignment, playful learning, and executive function skill development.
- -Translate playful, game-based activities into structured, classroom-ready lesson plans that are feasible for teachers and engaging for students.
- -Facilitate bi-monthly curriculum meetings and communicate iterative progress through draft deliverables and milestone sharing.
- -Mentor and support a curriculum development team.

SEPT 2017 -JUNE 2022

#### Middle School Math Teacher

El Sol Science and Arts Academy | Santa Ana, CA

- -Four-year experience teaching sixth eighth-grade grade-level math to an underperforming cohort of students, and pre-algebra to academically advanced youth.
- -Participation in Research studies through
- -UCI STEM Learning Lab Fraction Ball Co-designer and implementer of interventions.
- -UCI Creativity Lab Symphony Classroom Pilot Educator
- -Instructional Learning Team

AUG 2012 -JUNE 2015

## Kindergarten Teacher (1y); 5th Grade Bilingual Teacher (2y)

Pan American Academy Charter School | Philadelphia, PA

- -One year of experience teaching Kindergarten and two years of experience teaching fifth-grade multiple subjects in a bilingual setting.
- -Participation in leadership:
- -School-Wide Positive Behavior Support (SWPBS) start-up committee
- -Hiring committee
- -Primary Years Program (PYP) Written Application Committee
- -Professional Development Lead Team

AUG 2010 -JUNE 2011

## Middle School Math, Science, and Writing Teacher

New Heights Charter School | Los Angeles, CA

- -One year experience teaching sixth and seventh grade Math, Science, and Writing to underperforming STEM students.
- -Successfully increased sixth and seventh-grade Math state test results with a majority of the students having been ranked Proficient or Advanced. The seventh grade proved significant growth in the Writing state test with a majority of the students having scored a 4/4.

AUG 2009 -JUNE 2010

#### Second Grade Teacher

St. Francis Xavier Cabrini Elementary School | Los Angeles, CA

-One year of experience teaching second grade using an integrated curriculum to meet students' academic, intellectual, and social needs.

## **Professional Affiliations**

MAR 2024 - Mathematical Cognition and Learning Society (MCLS)
PRESENT

DEC 2023 - American Educational Research Association (AERA)
PRESENT

DEC 2022 - Society for Research in Child Development (SRCD)

OCT 2022 PRESENT Orange County Education Advancement Network (OCEAN)

# **Additional Skills**

Languages: Fluent in English and Spanish.

**Research Collaboration & Facilitation:** Experienced in engaging with Research-Practice Partnerships (RPPs) to co-design educational interventions alongside teachers and students; lead professional development sessions for

educators on topics including playful learning and rational number instruction.

**Qualitative Data Analysis:** Skilled in coding and analyzing interviews, focus groups, and observational data using Dedoose; experienced with developing codebooks, conducting interrater reliability testing, and synthesizing themes across multiple data sources.

Quantitative Data Analysis: Proficient in STATA and R for statistical analysis and data visualization.