

# FAMILY MATH GAME NIGHT: STUDENT-FACULTY COLLABORATION FOR TRANSFORMATIVE LEARNING IN TEACHER EDUCATION

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## *A POSTER PRESENTATION*

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## *EXTENDED ABSTRACT*

Service learning is a form of experiential education combining “service objectives with learning objectives with the intent that the activity changes both the recipient and the provider of the learning” (Lake & Jones, 2012, p. 6). It has the ability to empower and transform student learning, as well as the learning of the participants. This transformative service learning project focuses on a Family Math Game Night implemented at an elementary school. The project was framed around the five interdependent stages of service learning: investigation, preparation, action, reflection, and documentation (Lake & Jones, 2012).

**Investigation:** After working with two schools to determine their specific needs, two university faculty members created an event where Early Childhood (ECED) and Elementary Education (ELED) majors taught families games that encouraged mathematical understanding. This helped the children get additional math practice, gave families necessary resources, and provided future teachers with opportunities to work with families.

**Preparation:** The two-faculty received Student Transformative Learning Record (STLR) grant to hire one student worker the first semester and two the second. The STLR students, both ELED majors, planned and organized the events, including creating flyers and soliciting door prizes. The faculty also added the Family Math Game Night assignment to their math methods courses.

**Action:** ECED and ELED majors worked individually, with partners, or in triads to teach children and their families how to play the math games. Each family also received bag materials (cards, dice, a pencil, and instructions of all the games in English and Spanish) to take home. This helped families who did not have the financial means to buy these materials. It also provided them with appropriate activities to increase mathematical understanding. The first event was attended by about 64 families and the second by about 15.

**Reflection:** The STLR students and ECED and ELED majors reflected on their experiences through guided prompts. Four themes emerged from the reflections: differentiation, working with families, self-reflection, and future participation.

**Differentiation:** *“Once we had a couple of families play our game, we realized that it was going to be too difficult to have a winner on only one game board... We decided to go back to playing on two game boards and it worked out.”* (ECED major)

**Working with Families:** For many of the students, this was their first opportunity to have direct interaction with families. *“My favorite part was getting to explain to a parent how many different math concepts you can practice with just a couple of simple tools, like a deck of cards.”* (ELED major)

Self-Reflection: “*Growing up, math was a struggle for me. I feel if I had a teacher who did these kind of games and activities with me, there is a possibility I would not have struggles as much.*” (ECED Major)

Future Participation: “*In the future, I can see myself participating again by making a game, bringing my own family, or facilitating a family math game night in my own classroom.*” (ECED major)

Demonstration: One of the STLR students presented the project at national and local conferences. ECED and ELED majors demonstrated their learning through poster presentations at a university symposium. The faculty continue to share what they learned from the project with others in the field.

### SELECT REFERENCES

Lake, V. E., & Jones, I. (2012). *Service learning in the prek–3 classroom: the what, why, and how-to guide for every teacher*. Minneapolis, MN: Free Spirit Publishing.

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