

# How a basketball court became Fraction Ball?



# Fraction Ball at El Sol



# Fraction Ball at El Sol



- Roles:

- Shooter

- Rebounder

- Counter

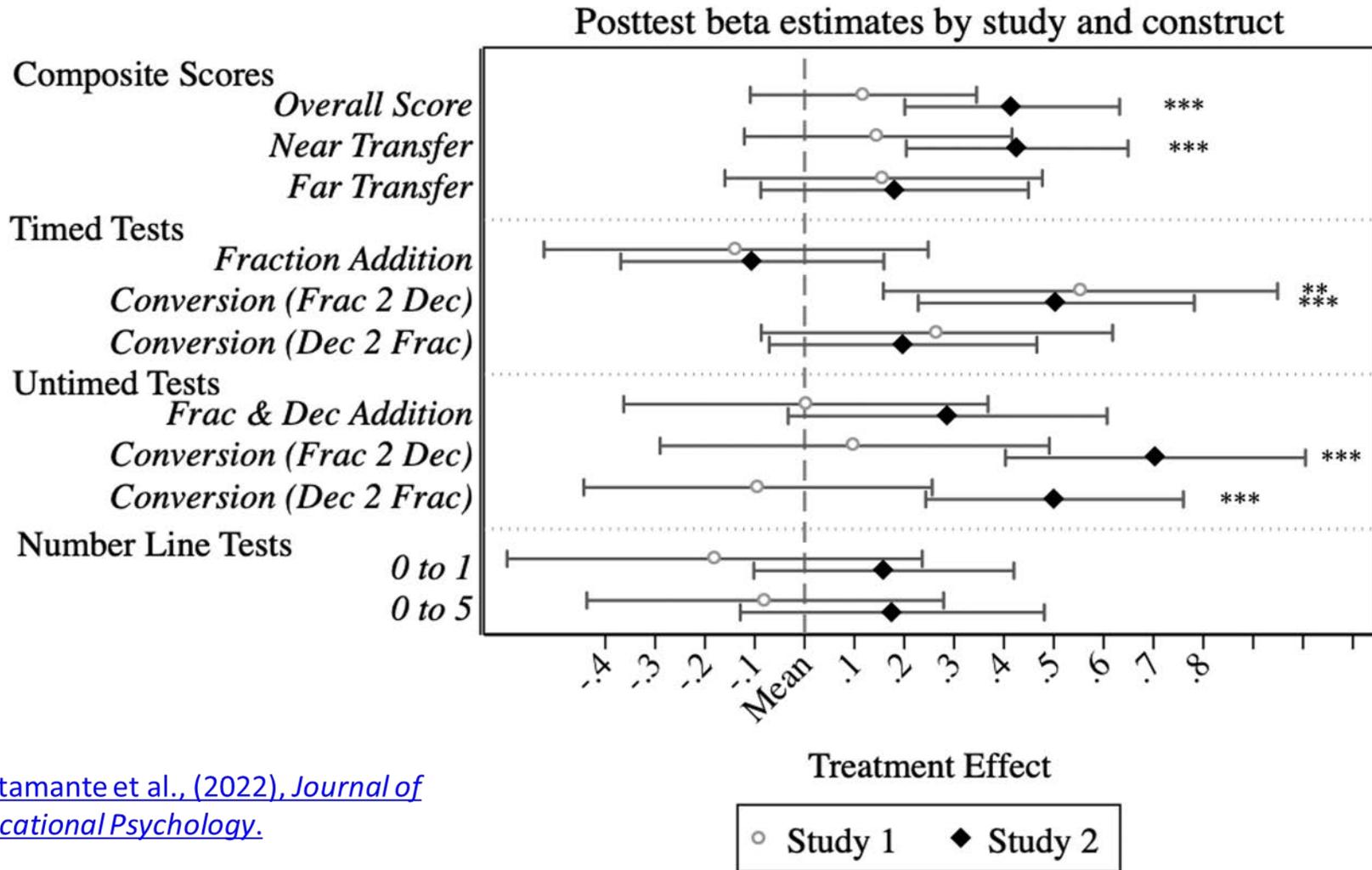
## Scripted Games

- Rapid Fire
- Make it Count
- Exactly
- Flip Rule

# Fraction Ball at El Sol



# Fraction Ball Results



[Bustamante et al., \(2022\), Journal of Educational Psychology.](#)

Note: Models are specified using robust standard errors, controlling for pretest & grade. Bars show 95% confidence intervals. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$

# Teacher's Experiences



*The students who I know struggled in class with fractions, and specifically understanding the concept of the denominator and how that represents the whole, they seemed to solidify that knowledge. Now, post fraction ball, they're the ones teaching other students who are struggling. "No, no, no. The denominator means that's how many pieces make one whole thing." It's really neat to see it. That's like carryover.- El Sol teacher.*

# Teacher's Experiences

*It really put the students on a stressful situation because they wanted to win, and they wanted to make sure that they got the amount of points and that their number line represented the exact amount of points they earned. It was a lot of mental math and communication going on at the same time for a minute or depending on the game for two minutes that it requires a team effort. More than anything, I saw a lot of collaboration, a lot of communication, critical thinking on their feet. A lot of those 21st century skills were applied.*

# Teacher's Experiences

*There was a student in particular in the other groups that I heard a lot about and I've seen now the- what's the word, confidence that came from being able to do the fraction ball, was very, very frustrated at the beginning, was just like, "I don't even know how to do this. I don't even know why I'm here. I'm not going to do it well," blah, blah. Then, little by little Ms. G was able to convince him that he, in fact, could do it. That confidence that he gained on the court is carrying over into class. -*

# Number Ball



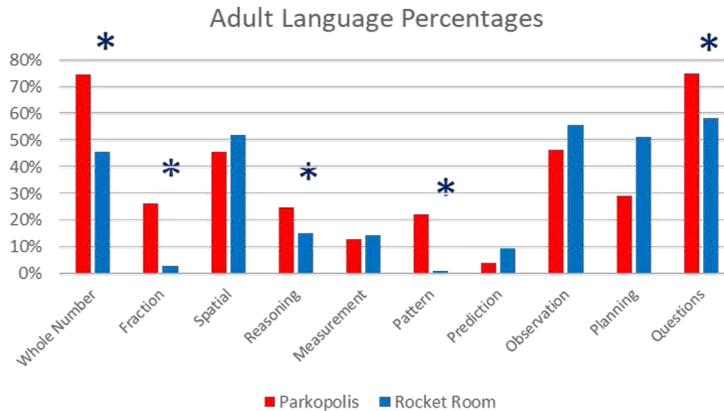
# Parkopolis



# Parkopolis

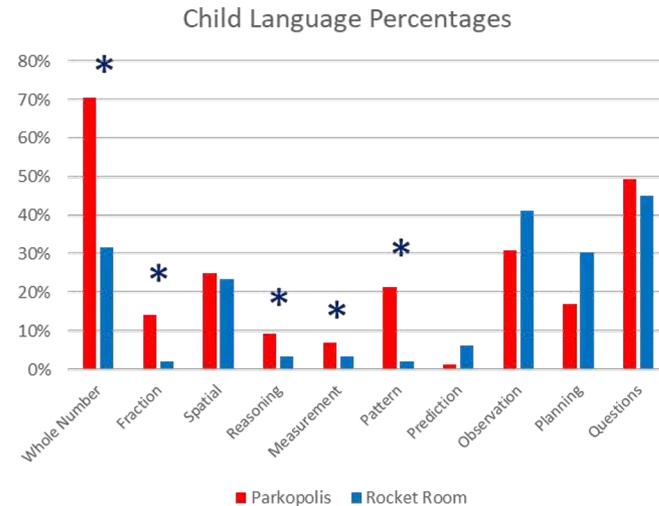


# Parkopolis Results



Children used more whole number language, fraction language, reasoning language, measurement language, and talked more about patterns.

Adults used more whole number language, fraction language, reasoning language, talked about patterns, and asked more questions.



# Next Steps: Parkopolis in the School Yard



El Sol Academy







PARK POP

EL LIBRO DE JESÚS DE TAMAYO MATEVALDIQUE Y TURCIAS

PICK A MUSIC CARD  
ESCOGE UNA TARJETA DE REGLAS

PICK A MUSIC CARD  
ESCOGE UNA TARJETA DE REGLAS

PICK A MUSIC CARD  
ESCOGE UNA TARJETA DE REGLAS

PICK A HOPSCOTCH CARD  
ESCOGE UNA TARJETA DE RAYUELA

PICK A MUSIC CARD  
ESCOGE UNA TARJETA DE REGLAS

HOP FORWARD 6 SPACES  
SALTA ADELANTE 6 ESPACIOS

27

HOP TO THE NEXT YELLOW  
SALTA HACIA ATRÁS 1 ESPACIO

HOP BACK 1 SPACE  
SALTA HACIA ATRÁS 1 ESPACIO

PICK A HOPSCOTCH CARD  
ESCOGE UNA TARJETA DE RAYUELA

HOP FORWARD 2 SPACES  
SALTA ADELANTE 2 ESPACIOS

PICK A HOPSCOTCH CARD  
ESCOGE UNA TARJETA DE RAYUELA

TIRA OTRA VEZ

PICK A HOPSCOTCH CARD  
ESCOGE UNA TARJETA DE RAYUELA

HOP FORWARD 2 SPACES  
SALTA ADELANTE 2 ESPACIOS

PICK A HOPSCOTCH CARD  
ESCOGE UNA TARJETA DE RAYUELA

TIRA OTRA VEZ

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