

Joyful Math Play with a Purpose

Proposal No:

3198

Speakers:

Kathryn Coffey (1), DAVID COFFEY (2)

Institutions:

(1) Muskegon Public Schools, Spring Lake, MI, (2) Grand Valley State University, SPRING LAKE, MI

Co-Speaker:

DAVID C COFFEY

Grand Valley State University
SPRING LAKE, MI

Lead Speaker:

Kathryn N Coffey

Muskegon Public Schools
Spring Lake, MI

Participant learning:

1) Participants will become familiar with simple engaging, yet challenging games that promote the development of children's number sense; 2) Participants will anticipate ways to leverage meaningful learning experiences that result from students playing these mathematical games; and 3) Participants will develop learning scenarios based and modifications of the games that will allow teachers to encourage joyful math learning and productive discourse around the Mathematical Practices.

Time allocation for this workshop:

05 Introduction

15 Explore Standards for Mathematical Practice

05 Introduce games

35 Participants play games

15 Reflect on learning/questions

Focus on Math:

The games used in our session provide rich opportunities for the type of productive struggle that fosters the development of children's early number sense. A key element of our session is having participants actively play the games & then develop scenario that highlight the structure of our base 10 system & strategies associated with fluent computation. Too often, learning associated with games is left to chance, so we ask teachers to use game contexts to ensure intentional teaching & learning.

Interactive Workshop:

This workshop features 5 to 7 different interactive games for early number sense using a variety of manipulatives. Manipulatives will include number & dot cubes, base 10 blocks, ten frames, linking cubes, 100 boards, playing cards, & the rekenrek along with the game boards and require a table for maximum participation. Each table will be set up with a different game where participants will interact with each other by making sense of the game rules and will interactively play the games. Participants will move between tables and games in order to explore each of the featured games.

Workshop Audience:

Pre-K to 2

Strands:

For the Love and Joy of Mathematics

Audio/Visual Equipment

Will your presentation require the use of a document camera in addition to the above equipment?

No

Calculators (check one)

No Calculators Needed

Equity and Access

How does your presentation align with NCTM’s dedication to equity and access?

The games featured in this workshop can be modified in order to differentiate to meet the needs of both struggling and advanced students. They can be played by individual students, partners, during small group collaborative work (i.e., centers), as a Multi-tiered System of Supports intervention, and with a whole group. The games provide a shared experience & context for all students which the teacher can utilize to develop learning scenarios that enhance & promote purposeful mathematical talk.

Program Book

May we print your email address in the program book? (check one)

Yes

Speaking Experience

Specify three recent speaking experiences of the Lead Speaker relevant to the proposal topic (provide topic, location, and date).

	Topic	Conference Name	Year	Level of Speaking Engagement

1.	Math Play with a Purpose	NCTM Annual Conference	2018	National/International
2.	Young Mathematicians at Play	Math in Action Conference	2018	Local
3.	Young Mathematicians at Play	NCTM Regional Conference- Chicago	2017	Regional

Special Assistance

Do you require special assistance, as defined by the ADA or special scheduling consideration for religious reason(s)?

No