



## Embedding STEM Learning into Inclusive Motor Play

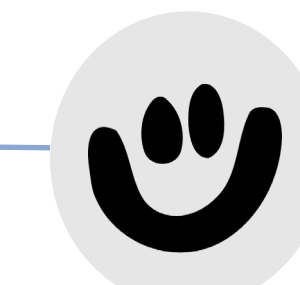
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### In the context of motor play

Young children develop school readiness skills



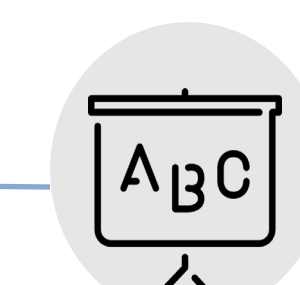
Physical well-being and motor development



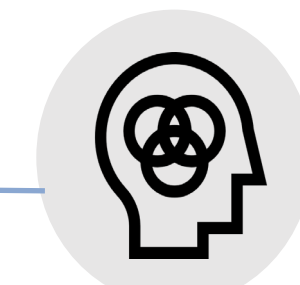
Social-emotional skills



Language skills



Cognitive skills (i.e., pre-math, pre-reading)



Approaches to learning (i.e., following directions)

Stay tuned for our upcoming book from Brookes!

## RESEARCH QUESTION

What STEM learning opportunities did teachers observe when engaging children in inclusive motor play?

## METHODS: Content analysis

- 17 Preschool Teachers
- Teachers' observations while delivering CHAMPPS

### Children in Action: Motor Program for PreschoolerS (CHAMPPS)

A class-wide preschool motor program with lessons embedded with universal design for learning strategies, music videos and large motor activities to support children with diverse abilities.

- Addresses **fundamental motor skills**: walk, run, balance, jump, catch, throw, strike & kick
- Increases **physical activity level**
- Reinforces **school readiness skills**: language, social, pre-academics, approaches to learning

## RESULTS

### Spatial Relationships

- Using position words when playing Simon Says
- Position words like over & under are easier for children to demonstrate since practicing with the balls

### Symbolic Thought

- We discussed the meaning of red light meaning 'stop' and green 'go'

### Science Related Concepts

- Students are able to label and identify body parts during motor play
- We learned about science and how heavy or light something is and what is inside the balloons

### Math Related Concepts

- Students are learning to recognize printed numerals as we practice by having them [gather] their numbered circles at the end of CHAMPPS

## DISCUSSION QUESTION

What ideas do you have for supporting children's STEM learning in motor play?

## EXAMPLE



### Pass the Ball

### Emphasize Key STEM Vocabulary

#### Body Parts

- Hands
- Arms
- Elbows
- Eyes
- Fingers
- Knees

#### Positional Words

- Over
- Under
- Between

### Contact us

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