

AI and Technology Assisted Methods for Data Collection and Scalable Teacher Support

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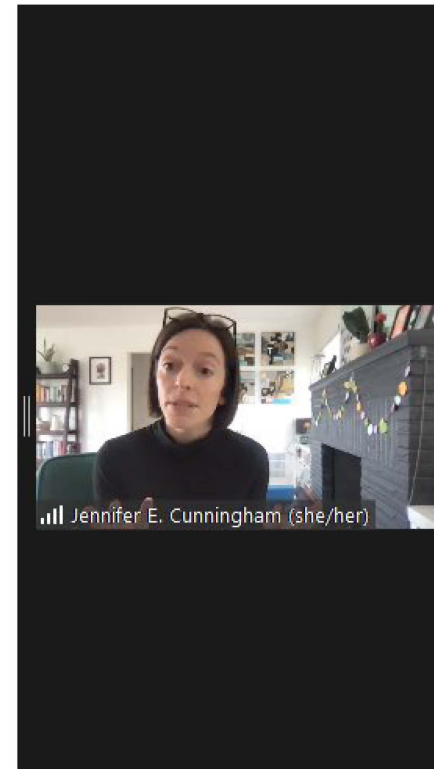
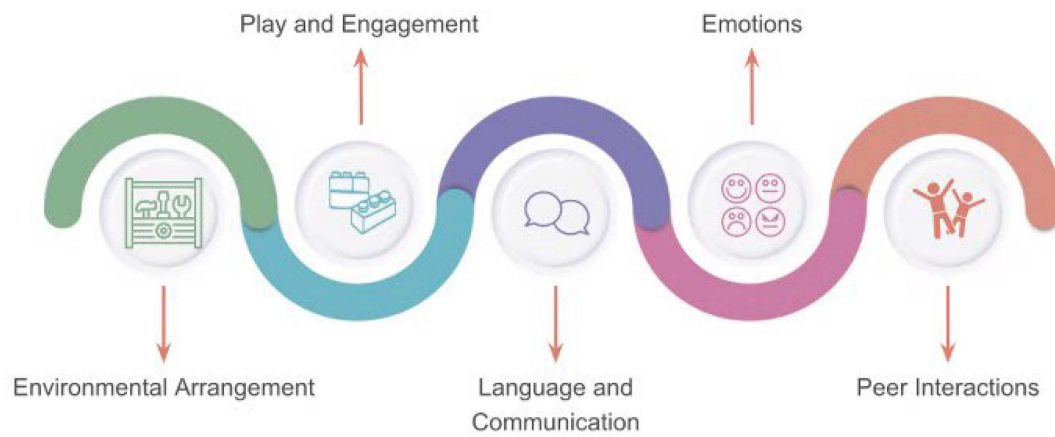


Research at TeachFX

- Background & history
- Current research partners and projects
 - Early childhood
 - Toddler Talk (Cunningham, Kaiser)
 - Shared book reading (Pentimonti, Chow)
 - Measures for Early Success (Hatch Early Learning, The Family Partnership, Executive Functioning Across Generations Curriculum, DataGriot, Bill & Melinda Gates Foundation, MDRC)
 - K-12
 - Mathematics instruction (Digital Promise, Hodkowski, Roschelle, Vuchic, Young, Smith)
 - Mindsets supportive practices (Yeager, Demszky)
 - Online learning and tutoring
 - Mathematics tutoring (Demszky, Cognition, Mathematica, Bill & Melinda Gates Foundation)
- Long-term research vision
 - NLP X Instruction Research Consortium (Demszky, Yeager, Loeb, Hill, Liu, Robinson, Sumner, Jacobs, Rascoff, Fiden)



What is ToddlerTalk?



What do we measure in ToddlerTalk?

- Frequency based:
 - Back and forth exchanges on a related topic
 - Vocabulary modeled
 - “ToyTalk” Sentences
 - Expansions of child language
 - Questions vs. comments
 - Choices offered
 - Emotions words modeled
 - References to peers and positive peer interactions
- More complex/quality based:
 - Calm support during moments of big emotions that matches child’s needs
 - Pairing of visual cues with language
 - Responsiveness to children’s ideas and interests
 - Matched affect
 - Individualization in the moment

