Beyond Learning Loss

Exploring the Implications of COVID-19 for Early Language and Literacy Development

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Overview

- The big picture and introduction
- Young children's school experiences during COVID
- Impacts of COVID disruptions on language & literacy from prek-end of 1st grade
- Next steps and lessons to learn

The Big Picture and Introduction

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The big pic

COMMENTARY

The pandemic h had devastating impacts on learning. What w it take to help students catch

Megan Kuhfeld, Jim Soland, Karyn Lewis, a Morton

March 3, 2022

The New York Times

Students Lost One-Third of a School Year to Pandemic, Study Finds

Learning delays and regressions were most severe in developing countries and among children from low-income backgrounds. And students still haven't caught up.

Share full article 107

Elementary school students returning to in-person learning in a school in California in 2021. Education deficits were equivalent to about 35 percent of a school year and remained steady, according to a new study. Clara Mokri for The New York Times

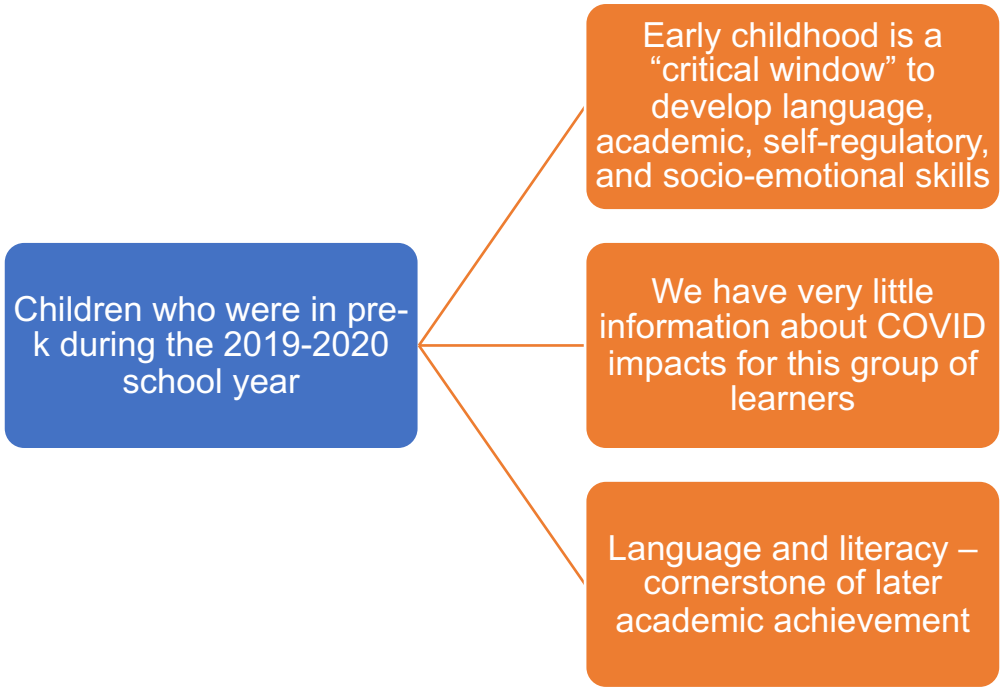
By Emily Baumgaertner

Jan. 30, 2023

Unanswered questions

- How was **young children's** learning impacted by COVID?
- **Which** language and literacy skills were impacted the most?
- How did **remote learning** play a role?
- Did **child characteristics** such as race/ethnicity, income, or disability status play a role?

Specific focus of this presentation



Young children’s school experiences during COVID-19

2019-2020: The Year Schools Shut Down

- All but one school district closed by the end of March 2020
- Fully closed for an average of 8 instructional days
- Teachers shifted to remote instruction with little time to prepare and few resources
- Challenges:
  - Attendance (Ford et al., 2021)
  - Engaging children in online sessions (Ford et al., 2021)
  - Little synchronous instruction in early childhood settings – posted materials online daily, virtual whole-class meetings 1x/week (McKenna et al., 2021)
  - Few opportunities to engage in conversations, talk about books, do interactive/hands-on activities (Ford et al., 2021; Steed et al., 2022)

2020-2021: The Year of Hybrid & Remote Instruction

- Most children began Fall 2020 as remote learners
- Difficulties with engagement & attendance continued (Jalongo et al., 2021; McKenna et al., 2023)
- Apps and other digital resources used with pre-k learners during remote learning focused on discrete skills like letter knowledge, rather than comprehension or vocabulary (Hadley et al., 2023)
- Other disruptions to learning: quarantines, illness, teacher staffing difficulties, social distancing/disease mitigation measures (Lalonde et al., 2022; Surrain et al., 2023)
- High rates of teacher stress, burnout, and high workloads (Pressley et al., 2021)

2021-2022: The Year Things Returned to Normal?

- 98% of school districts offered in-person learning
- However:
  - Chronic absenteeism from teachers and children
  - COVID-related school closures and quarantines still occurred
  - High rates of teacher burnout – associated with lack of administrative support and the use of learning management systems (Pressley et al., 2022)
  - Teachers reported that 50 percent of their students were behind grade level (compared to 36 percent in previous year; NCES)
  - Teachers reported that their students needed more mental health support than before the pandemic (NCES)

And beyond: lasting educational changes in a post-COVID world

- Long-term impacts on children's learning trajectories?
- Long-term impacts on socio-emotional development?
- Behavioral impacts and social skills of COVID babies and young children?
- School districts' investment in remote instruction infrastructure, apps, and tech resources; how to use with young children in responsible and developmentally appropriate ways?

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Impacts of COVID school disruptions on language and literacy

Our study

- 1. Examining long-term impacts of COVID-19 on language and literacy for young children
- 2. Looking at the impact of COVID on specific *kinds* of literacy skills: constrained vs. unconstrained
- 3. Exploring how impacts might have varied for children who attended school remotely in kindergarten vs. face-to-face learners; exploring impacts for children with different background characteristics

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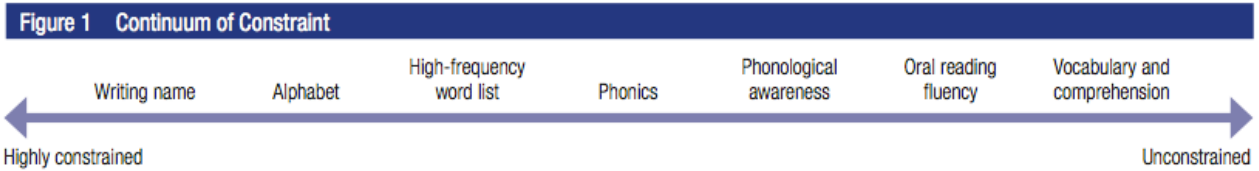
Constrained vs. unconstrained skills

- **Constrained skills:** limited number of items; can be mastered within a relatively short time frame
  - Writing your name
  - Letters of the alphabet
  - Phonics
- **Unconstrained skills:** broad in scope; learned across a lifetime, never fully mastered
  - Vocabulary
  - Comprehending texts

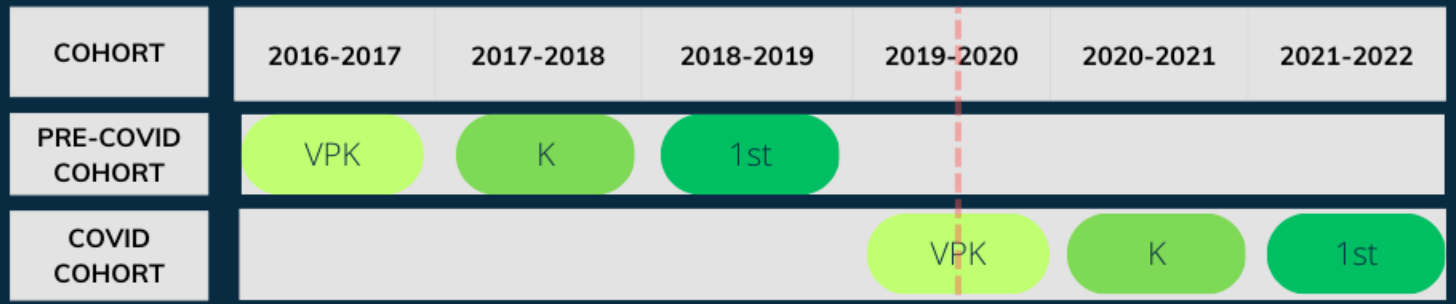


Stahl, 2011

The context of our study

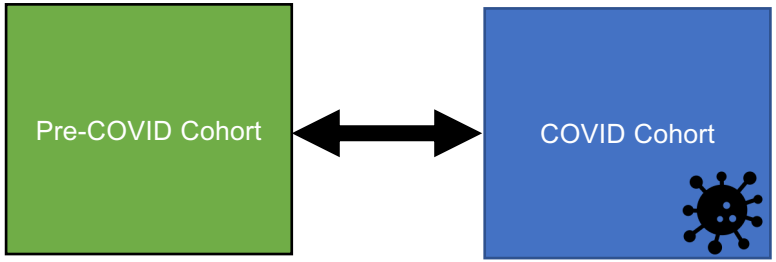
- Two cohorts of children from 89 schools in large school district in west-central Florida
- Attended Voluntary Pre-K (VPK), K, and 1st grade in public elementary schools
- Pre-COVID Cohort (*n* = 1169): VPK in 2016-2017, pre-COVID
- COVID Cohort (*n* = 1123): VPK in 2019-2020
  - Pre-K: missed 9 weeks of in-person school (2019-2020)
  - K: could choose to attend online or face-to-face (2020-2021)
  - 1st grade: in-person instruction (2021-2022)

COHORTS' TIMELINE



Research design

- Compare children's literacy scores in K and 1st grade between 2 groups:
  - Pre-COVID cohort
  - COVID cohort



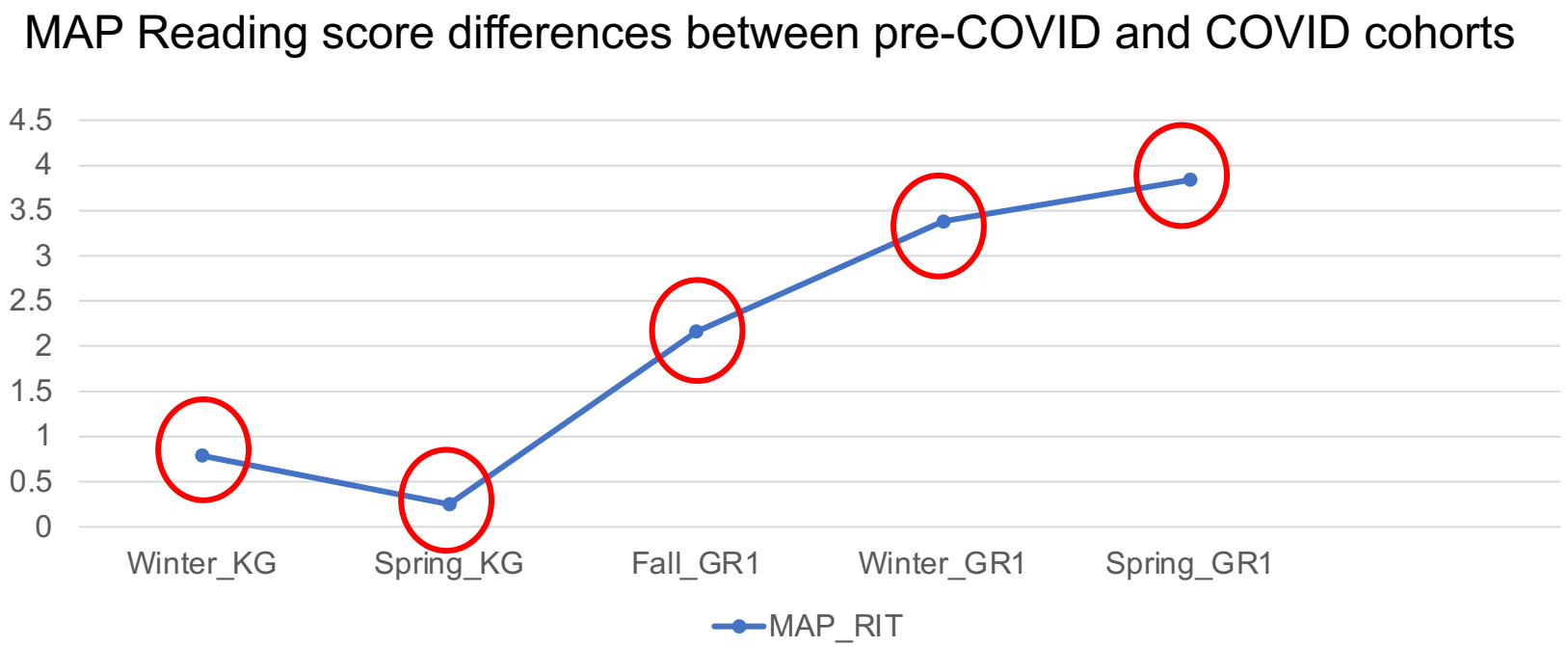
Following children's language and literacy development over time during COVID years

Impact of COVID on language and literacy: at kindergarten entry

- ***No* negative impacts in fall of K**
- COVID cohort children actually performed slightly **better** than the pre-COVID cohort
  - Especially in certain domains:
    - Alphabetic Principle
    - Concept of Word

Hadley et al., 2023

Impact of COVID on language and literacy: winter of K through end of 1st grade



Key take-aways:

- Gaps are **larger** than those reported for older children (Curriculum Associates, 2022; Kuhfeld & Lewis, 2022)
- Gaps appear to be **widening** over time, rather than **narrowing**
  - For older children, scores had started to rebound by spring 2022 (Empower K-12, 2023; Renaissance Learning, 2023)

Downward spiral of reading difficulties

Difficulties reading texts

Less exposure and encounters with text

Less exposure to academic language, vocabulary, and background knowledge

Difficulty comprehending texts

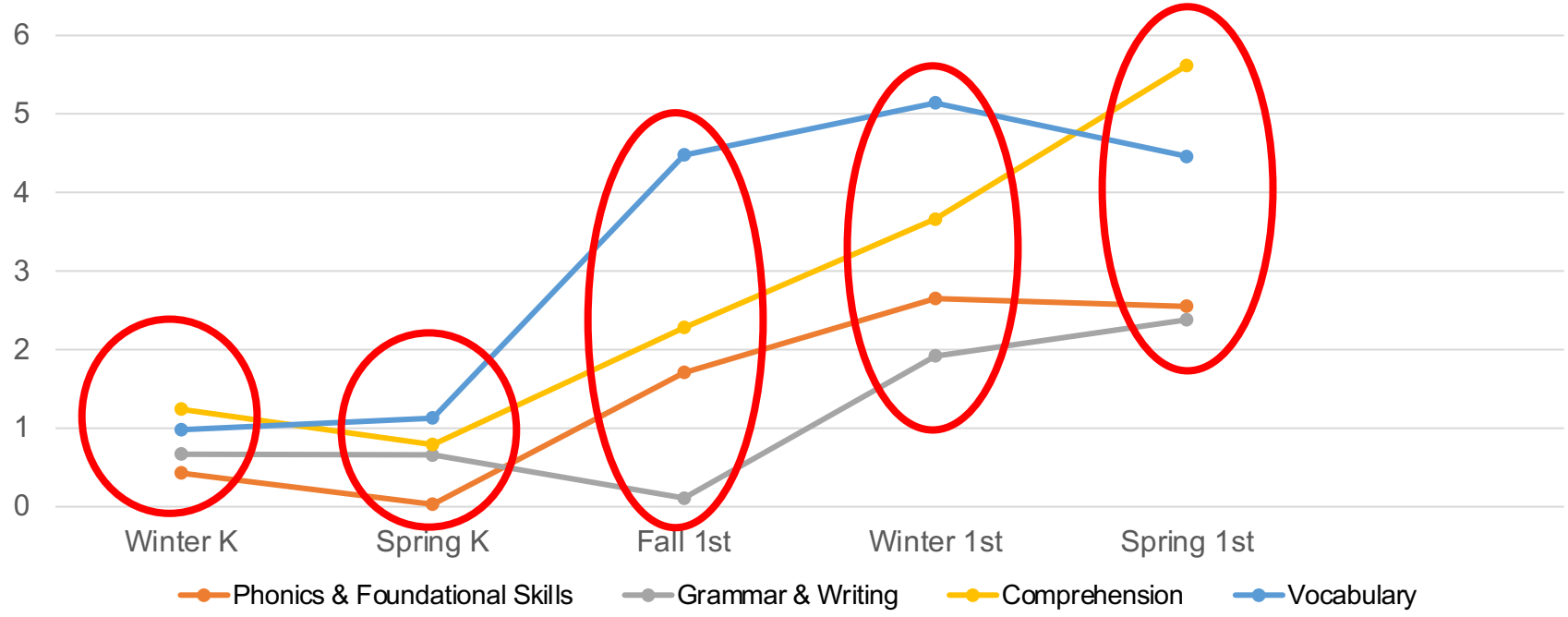
Less motivation to read

Less exposure and encounters with text

Torgeson 2004; Stanovich, 1993

Impact of COVID on language and literacy: Constrained vs. unconstrained skills

MAP Reading score differences **by subdomains**



Key take-aways

- For early childhood population, all language & literacy skills were impacted by COVID
- But **unconstrained skills** were impacted more than constrained ones
  - Fewer interactive activities in crucial pre-k and K years?
    - Conversations, shared-booking, play, hands-on science activities
    - Apps used during remote learning focused on **constrained** skills – especially letter knowledge (Hadley et al., 2024)

Key take-aways

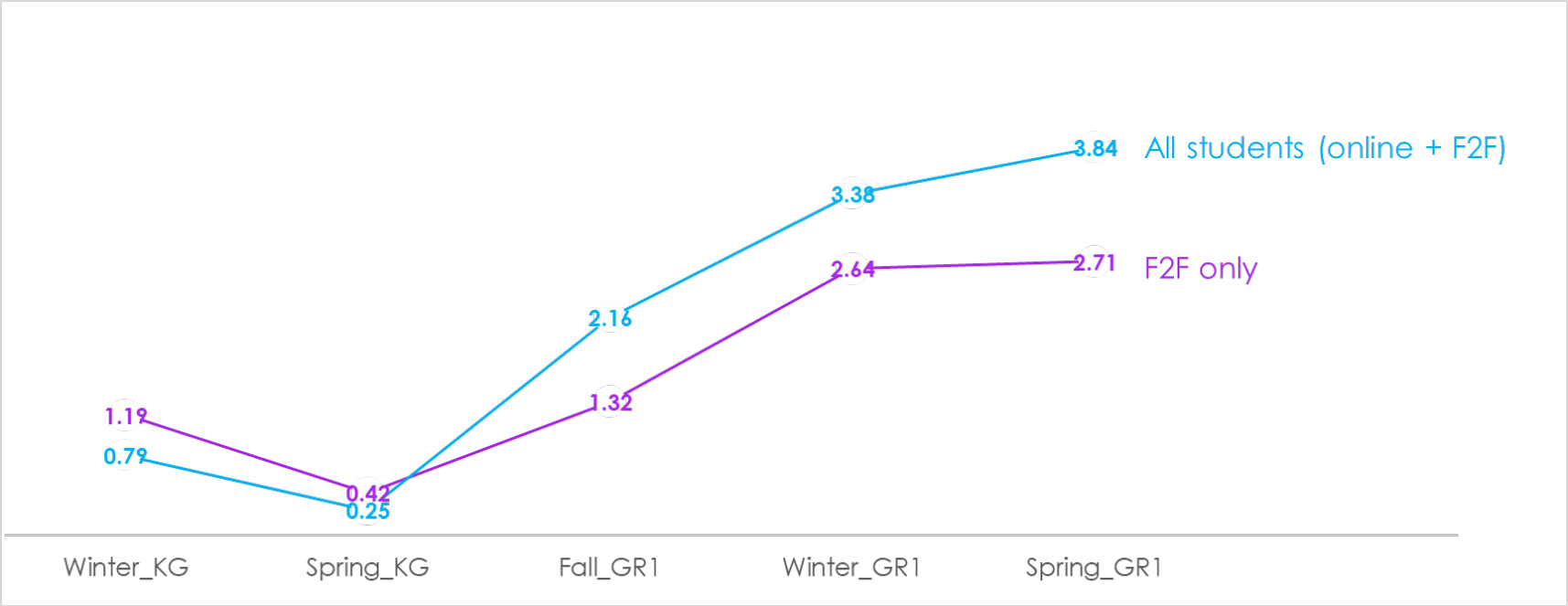
- While gaps in grammar, phonics, and vocabulary appear to be leveling off, gaps in **comprehension** continue to grow
- Comprehension skills are essential as children move into later elementary school and are expected to learn from texts
- Comprehension gaps may be signal that underlying skills are weak

The role of remote learning

- In Florida, all districts were required to offer a 5-day in-person instruction option in 2020-2021 school year
- About 40% children in our sample were learning online at the beginning of the school year (K)
- By the end of the year, nearly all were learning in-person

	N
Beginning of Year K	
Face-to-face	644 (57.3%)
Online	479 (42.7%)
End of Year K	
Face-to-face	1014 (90.3%)
Online	109 (9.7%)
Change in Learning Mode during K	
Face-to-face all year	580 (51.6%)
Changed from online to face-to-face	434 (38.6%)
Changed from face-to-face to online	64 (5.7%)
Online all year	45 (4%)
Total	1123

Impact of COVID on language and literacy: The role of remote learning



Key take-aways

- Remote learning in K was not the *only* reason for COVID learning loss
- However, learning face-to-face in K appeared to “buffer” against some of the learning loss experienced by full sample
- Note that in our district, relatively small dosage of remote learning; remote learning implemented district-wide had larger negative effects elsewhere, especially in high-poverty districts (Goldhaber et al., 2023)

The role of child characteristics

- **No differences** by racial/ethnic backgrounds, home languages, free/reduced price lunch status, disability status
- **However…**
  - Children with a diagnosed language disability had slightly larger negative impacts than those without (but very small sample size post-COVID)
  - Very few children diagnosed with disabilities post-COVID vs. pre-COVID (125 post-COVID, 416 pre-COVID)
- Our sample was majority high-poverty (70% FRPL) and high percentages of minoritized children (43% Black, Latine, and Multi-racial)

Next steps and lessons learned

Next steps

- Huge variation in districts in COVID learning loss recovery (Fahle et al., 2023)
- In some districts, students' learning has fully recovered, while in others, students have fallen further behind
- What's making a difference?
  - Tutoring programs (Robinson et al., 2021)
  - More staff - instructional coaches, social workers and educational assistants who teach small groups (Miller et al., 2024)
  - Instruction/tutoring during school breaks (Miller et al., 2024)
  - More funding/resources (Fahle et al., 2023)
- Reading interventions *can* and *do* make a difference for students in elementary (Wanzek et al., 2022); resources are needed

Lessons Learned

- There are likely important developmental differences in how COVID impacted children of different ages – academic, socioemotional, behavioral.
  - School, particularly the experience of in-person school, supports different competencies at different ages
- Interruptions to young children's learning trajectories may have disrupted the construction of key foundational elements needed for later success in reading and across content areas
- These children should be top priority for concentrating resources, instruction, & intervention

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Lessons Learned

- What role **can** technology play in the language and literacy learning of young children? What role **should** it play?
  - Teachers need guidance in the selection and use of resources
  - **Can** apps/digital resources successfully be used to support unconstrained skills? (Epic, Seesaw, YouTube); **Should** they be used for this purpose? In which situations?
  - **Can** apps/digital resources successfully be used to support constrained skills (Starfall, ABC Mouse, etc.?) **Should** they be used for this purpose? In which situation?
  - How can adult mediate and scaffold use of tech?
  - How much screentime is appropriate in school, given large increases in screentime outside of school? (Dore et al., 2021)

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Lessons Learned

- What happens when **in-person, typical** instruction is disrupted?
- Importance of **in-person instruction** for young children in early childhood years, especially for supporting unconstrained skills
- Importance of **in-person schooling** for identifying and providing services for children with disabilities
- Importance of **kindergarten** in children's language and literacy learning and particularly in the development of unconstrained skills
- **Teachers and peer classroom communities** play an essential role in supporting the development and learning of young children

Thank you!

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