Early Childhood Education: What Works and What Doesn’t

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What problems do we want preschool programs trying to address?

• Some would say
  – school readiness gaps
• Others would say
  – lifetime disadvantage
Have I got some programs for you!

• Short run:
Boston pre-K eliminates short-run achievement gaps between low- and middle-income children

• Long-run:
Perry Preschool, Abecedarian and Head Start have generated large long-run benefits
Outline for talk

• Short run:

Best bets for policies that promote school readiness

For short-run impacts, worry about curriculum and less about classroom structure

Go for a play-based academically-oriented curriculum that also develops socioemotional skills.
Outline for talk

• Longer-run:

Can today’s programs repeat the long-run successes of past programs?

Not by themselves.

For longer-run impacts, scale up pre-K and integrate it with K-12 so that it becomes another (quite differently structured) year of school.
Policy Levers for School Readiness

• Process quality regulation (e.g., QRIS)
• Curriculum requirements and coaching
Process Regulation Policy Lever

• Star-type ratings for quality based on structural characteristics and classroom observations (ECRS, CLASS)

• No strong evidence that process quality improves school readiness substantially
Curriculum Policy Lever

Types of curricula

• Whole-child (used in 75% of Head Start and 40% of pre-K classrooms; called “Constructivist” by some)

• Content-specific (e.g., math or literacy) (used in ~20% of Head Start and pre-K classrooms; not “Direct Instruction”)

• Locally-developed
Impacts of Various Curricula on Academic Outcomes

Source: Nguyen’s (2016)
Impacts of Various Curricula on Academic Outcomes

Difference in Standard Deviation Units

Source: Nguyen’s (2016)
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• Short run:

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Short- vs. Long-run Effectiveness:

Can today’s programs produce long-run gains???

Probably not without close coordination with K-12 schooling
Building Blocks Math Impacts

Solid marker $p < .05$

Age

$0.63 \text{ sd}$
Building Blocks Math Impacts

- .63 sd
- Solid marker p<.05
Fade out in cognitive impacts in 67 ECE studies

Effect size in sd units

Years since end of treatment

End of program

Solid marker denotes p<.05. Source: Li et al. (2017)
Huge disappointment
Why the fadeout/catch-up?

• Academic skills taught in pre-K are quickly learned in K

• Need to teach basic skills AND be a “charging station” for pre-K skills

• Need curriculum alignment and coaching how to teach children with different math skills
Non-solutions:

• Turn preschool into a stressful, worksheet-laden, regimented mini-elementary school
Possible ways of sustaining pre-K impacts:

• Train preschool and early-grade teachers to teach numeracy and literacy

• Use proven play-based pre-K curricula

• Integrate and (co-locate?) preschool and K-3 instruction

• Focus on Common Core-type learning goals and use preschool to prepare children for them
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