

# Self-Regulation Partially Offsets Risk of Reading Failure<sup>1</sup>

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## KEY POINTS

- Using statewide data from a kindergarten entry assessment (KEA), this study examined the links between two domains of school readiness at kindergarten entry (e.g., emergent literacy and behavioral self-regulation) and children's literacy skills at the end of first grade among a sample of children at high-risk for future reading failure.
- Children who entered kindergarten with stronger emergent literacy skills and behavioral self-regulation tended to have better reading skills at the end of first grade; this link was stronger for emergent literacy skills than for behavioral self-regulation.
- Children with above-average behavioral self-regulation at kindergarten entry were more likely to reach a literacy performance benchmark in the spring of first grade, compared to children with low behavioral self-regulation. This was true for all children except those with the very weakest initial literacy skills at kindergarten entry.
- These findings underscore the importance of behavioral self-regulation as a protective factor for offsetting risk of reading failure for young children. Additionally, findings highlight the need to screen children on both academic and behavioral (or social-emotional) domains of school readiness at kindergarten entry.

## STUDY MOTIVATION

Kindergarten entry assessments (KEAs) are increasingly being used by states to understand children's strengths and risks across multiple learning domains at school entry. At the individual level, KEAs can identify which children may be at heightened risk for poor outcomes and inform the instruction those children receive. At the population level, data from KEAs can be used to understand how children's early risks and strengths contribute to their future academic success.

This study used data from the Virginia Kindergarten Readiness Program (VKRP), the KEA used in Virginia, and the Phonological Awareness Literacy Screener (PALS), a statewide literacy assessment administered in both kindergarten (as part of VKRP) and first grade. Using VKRP and PALS data, we examined the joint contribution of children's ( $N = 5,480$ ) emergent literacy and behavioral self-regulation skills at kindergarten entry to their literacy skills at the end of first grade.

The analytic sample was limited to children who showed substantial risk for future reading failure, as indicated by scoring in the bottom quartile on the PALS in the fall of kindergarten.

## EMERGENT LITERACY SKILLS & SELF-REGULATION AT KINDERGARTEN ENTRY PREDICT LITERACY SKILLS AT END OF 1<sup>ST</sup> GRADE

First, we examined the links between children's emergent literacy skills and behavioral self-regulation skills at kindergarten entry and their score on the PALS literacy assessment at the end of first grade. Children who entered kindergarten with stronger emergent literacy skills had better literacy outcomes at the end of first grade; however, the strength of this relationship was small to moderate.

We also found that children who entered kindergarten with stronger behavioral self-regulation skills had better literacy outcomes at the end of first grade, above and beyond initial literacy skills. The strength of this association was small – about half of that for emergent literacy skills predicting later literacy skills.

Thus, both initial literacy skills and behavioral self-regulation are important precursors to children's literacy skills at the end of first grade.

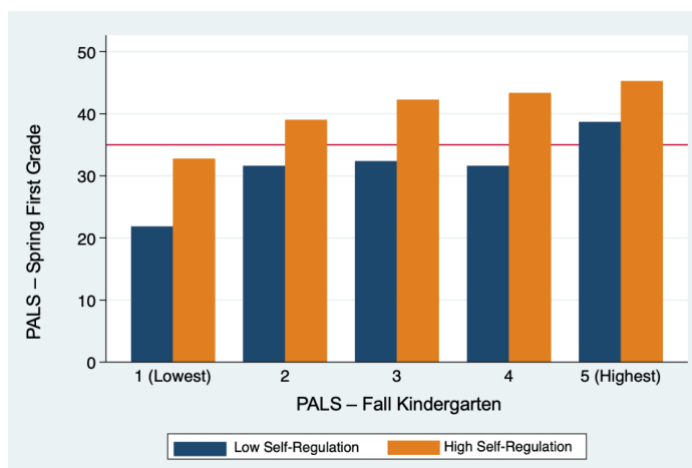
1 From Kehoe, McGinty, Williford, & Whittaker (2021). Behavioral self-regulation as a protective factor for children at risk of reading failure: Predicting first-grade reading from kindergarten entry assessment (KEA) data. *Early Education and Development*. <https://doi.org/10.1080/10409289.2020.1857540>

## BEHAVIORAL SELF-REGULATION AS A PROTECTIVE FACTOR

Next, we looked at how emergent literacy skills and behavioral self-regulation at kindergarten entry combine to predict literacy skills at the end of first grade. We found that, among children with low emergent literacy skills, having above-average behavioral self-regulation at kindergarten entry partially compensated for weaker initial literacy skills. Figure 1 shows that children at high-risk of reading failure were more likely to reach the PALS performance benchmark at the end of first grade when they entered kindergarten with high behavioral self-regulation skills, compared to low behavioral self-regulation skills.

Among a sample of children at high-risk for reading failure, nearly all children who exhibited strong behavioral self-regulation at kindergarten entry exceeded the literacy performance benchmark in the spring of first grade. The only exception was children with extremely weak initial literacy skills at kindergarten entry (e.g., scoring in the lowest quintile among a sample already identified as being at risk for poor literacy outcomes).

Figure 1: Literacy Skills at End of First Grade, by PALS-K Score (Quintiles) and Behavioral Self-Regulation



Note: Horizontal red line= performance benchmark, spring 1<sup>st</sup> grade

## IMPLICATIONS

These research findings highlight that behavioral self-regulation in kindergarten is an important factor associated with the literacy development of first grade students at risk for reading failure. Practitioners who support young children's learning and development should therefore focus on *both* academic and self-regulation as important domains of readiness. While this study was unable to identify why self-regulation partially offset reading-related risk, it is likely the case that behavioral self-regulation facilitates children's engagement in learning opportunities in the classroom, which then leads to better literacy outcomes. This study also reinforces the value of using multidimensional KEAs to understand multiple sources of early risk and strength for children's later academic outcomes.

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The Phonological Awareness Literacy Screener (PALS) is the state-provided screening tool for the Virginia Early Intervention Reading Initiative (EIRI). For more information on PALS, visit [pals.virginia.edu](https://pals.virginia.edu).

The Virginia Kindergarten Readiness Program (VKRP) is an initiative to provide a more comprehensive understanding of school readiness in Virginia. For more information on VKRP, visit [vkrponline.org](https://vkrponline.org).

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