



Do pre-school socio-emotional skills predict literacy and mathematics skills in early grades?

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Key messages

- **Socio-emotional skills at school entry strongly predict early academic achievement: Children with stronger socio-emotional skills at school entry perform significantly better in grade 2 literacy and mathematics, even after controlling for baseline cognitive skills and socio-economic background.**
- **Learning environments matter: The academic benefits of socio-emotional skills are larger in better-resourced schools and among children from wealthier homes. This suggests that socio-emotional skills are most effective when supported by enabling school and home environments.**
- **Integrating socio-emotional learning can promote equity: Socio-emotional skills are associated with improved academic outcomes across the socio-economic spectrum, offering a promising lever to help narrow learning gaps.**

Introduction and context

Many South African children enter school carrying the burdens of early-life adversity, including poverty, food insecurity, exposure to violence, and fractured family structures. While early childhood development (ECD) programmes can mitigate these effects, access remains limited—particularly for children from low-income households. As a result, many children begin formal schooling without the foundational skills needed to succeed. International evidence shows that socio-emotional skills—such as self-regulation, confidence, and relationship-building—may be especially important. Despite this, their role in supporting early learning has remained largely overlooked in South African education policy.

Research Methods

This brief draws on findings from my study, School-entry socio-emotional skills and early-grade literacy and mathematics achievement: Evidence from South Africa. The study makes use of data from the Roots and Shoots study, a multi-year research project that followed 400 learners across 75 public primary schools in the Western Cape province from the start of grade R—equivalent to kindergarten—in 2022 to grade 2 in 2024.

At the beginning of grade R, children's socio-emotional and cognitive skills were assessed using tools developed for the South African context. Socio-emotional skills

were rated by teachers using the Early Learning Outcomes Measure (ELOM) Social and Emotional Functioning Scale, which captures skills like emotional readiness, self-regulation, and peer relationships. Cognitive skills were measured through direct assessments of early literacy, numeracy, and executive functioning. In grade 2, researchers returned to the same schools to assess children's academic progress using adapted versions of the Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessments (EGMA).

To estimate the link between socio-emotional skills at school entry

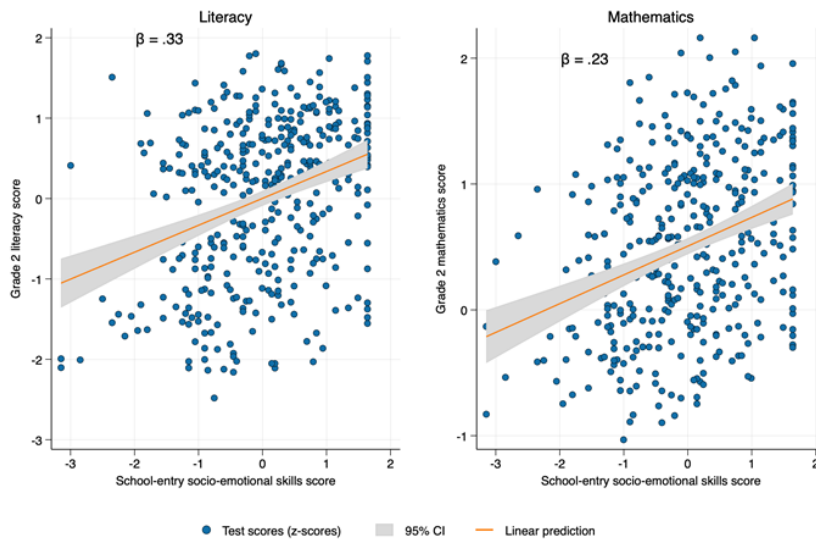
and later academic achievement, the analysis relied on regression analysis. This approach allowed for the isolation of the relationship between early socio-emotional skills and grade 2 test scores, while accounting for other important factors like baseline cognitive ability, socio-economic background, and school quality.



Key Findings

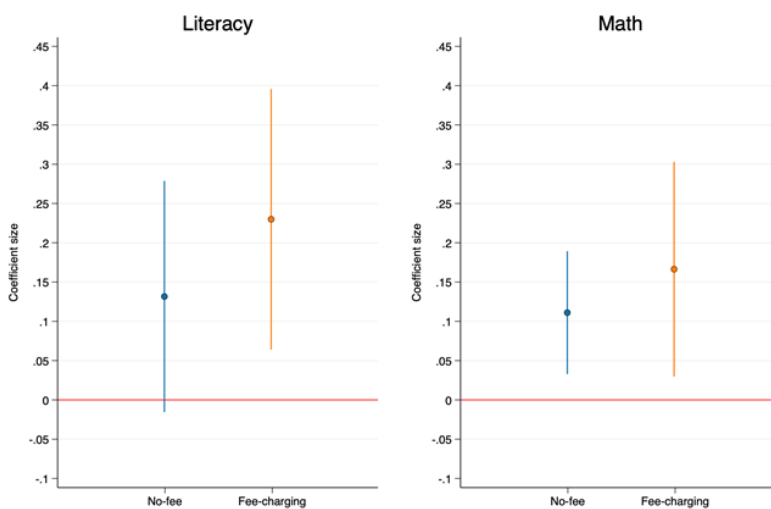
The research findings point to a strong positive association between school-entry socio-emotional skills and literacy and mathematics achievement in grade 2. This can be seen in Figure 1. These results mean that children who begin school with stronger socio-emotional skills go on to achieve higher maths and literacy scores by grade 2. These skills help children focus, persevere, collaborate, and engage meaningfully in the classroom—traits that underpin learning in every subject. This positive link holds even when accounting for differences in children’s backgrounds, cognitive abilities, and school quality. These benefits are especially marked for boys, for learners in better-resourced schools (shown in Figure 2), learners from wealthier households (shown in Figure 3) and for those with strong cognitive foundations.

Figure 1: Association between school-entry socio-emotional skills and later academic achievement



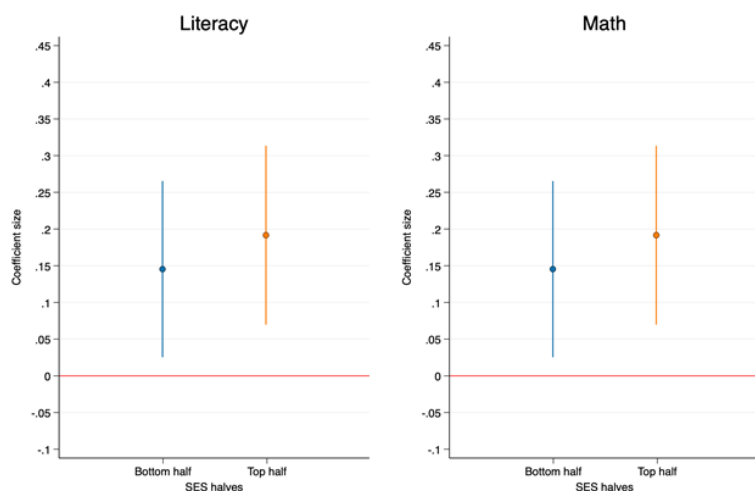
Notes: The figure shows the associations between school-entry socio-emotional skills and grade 2 literacy (left panel) and mathematics (right panel) test scores.

Figure 2: Conditional associations between school-entry socio-emotional skills and later achievement, by school-fee status



Notes: The figure shows a stronger association between school-entry socio-emotional skills and later achievement among learners in fee-charging schools.

Figure 3: Conditional associations between school-entry socio-emotional skills and later achievement, by socio-economic status



Notes: The figure shows a stronger association between school-entry socio-emotional skills and later achievement among learners in the top half of the socio-economic status distribution.



Conclusion

Integrating SEL into early education is essential for strengthening foundational learning and reducing educational inequalities in South Africa. By embedding SEL into curricula, equipping teachers with the necessary skills, and monitoring socio-emotional development, policymakers can create the conditions for socio-emotional skills to flourish, enhancing overall academic success.

Policy Recommendations

This evidence demonstrates that socio-emotional skills at school entry are significant predictors of subsequent academic achievement. Yet despite their importance, socio-emotional skills remain largely absent from early childhood education policy and practice in South Africa. To close foundational learning gaps and set learners on a path to success, urgent action is needed in three key areas:

1. Embed socio-emotional learning (SEL) into the early childhood education curriculum. The strongest gains in academic achievement between grade R and grade 2 were observed among learners who entered school with higher socio-emotional competence. This shows that academic and socio-emotional development are deeply intertwined. Socio-emotional learning must be treated not as an optional add-on, but as a core part of the early childhood education curriculum.
2. Train and support teachers to foster socio-emotional development. Without teacher buy-in and capacity, socio-emotional learning (SEL) will not succeed in practice. Teachers need practical, context-relevant training on how to support children's emotional readiness, confidence, and social interaction—especially in overcrowded and under-resourced classrooms. The study shows that socio-emotional skills matter most where schools and home environments can reinforce them. Well-trained teachers are the first and most important lever for making SEL work.
3. Track socio-emotional development to enable early, targeted support. Learners who lack key socio-emotional skills early on risk falling behind academically and staying behind. By monitoring socio-emotional development from grade R, schools can identify learners in need of additional support before academic gaps widen. This is especially critical in systems with limited capacity for remediation.



A Child writing in a Class room

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