

EDUCATION

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## EFP Takeaways

Effects of Teacher Specialization in Elementary Schools

### *Background*

Teachers are an integral part of the education system. Establishing policies to increase the effectiveness of teachers is of critical interest to both policymakers and school administrators. Prior research finds benefits of middle and high school level teachers specializing in instruction of particular subjects.

However, we know far less about the effects of teacher specialization at the elementary school level. A new study by Kevin Bastian and Kevin Fortner, in vol. 15, issue 2 of *EFP*, advances our understanding of elementary school teacher specialization.

### *The Study*

Utilizing administrative data from North Carolina, Bastian and Fortner analyze data from nearly 1,400 elementary schools to examine the effects of instructional specialization. Their analysis covered more than 23,500 teachers who worked in the state between the 2011-12 through 2015-16 academic school years. They examined which teachers specialized in subject areas, and how this specialization influenced student achievement—using more than 2.5 million student test scores in mathematics, reading, and science.

### *Findings*

Their analysis revealed the following:

- In general, elementary schools assign more effective teachers to specialize.
- Specialization of teachers is more prevalent amongst teachers in upper elementary grades. Approximately 25% of fourth-grade teachers and 37% of fifth-grade teachers specialize.
- Despite the theorized benefits, specialization does not appear to promote greater student achievement gains for either mathematics or reading. However, teacher specialization in science appears to be beneficial for student achievement.
- Teachers who specialize in mathematics and reading are generally less effective at raising test scores than they were before they specialized.
- Higher rates of teacher specialization within a school is not associated with differences in school-level achievement in mathematics and reading.

These findings raise doubts about whether increasing teacher specialization promotes elementary students' success.

#### For more details:

- View the [full issue](#).
- See the [full article in Education Finance and Policy](#).
- [Sign up here to receive future EFP Takeaways](#).
- Summary of:  
Bastian, K. C., & Fortner, C. K. (2020). Is less more?: Subject-area specialization and outcomes in elementary schools. *Education Finance and Policy*, 15(2), 357 – 382.