RESEARCH INTEGRATION REPORT

Core5 Benefits Students in Utah

Outcomes from 9 Years of Utah's Early Intervention Reading Software Initiative

Key Findings

- Core5 has become by far the most preferred program in Utah's Early Intervention Reading Software initiative. In 2023-24, Core5 was used, on average, by 25 times more students than other reading programs.

- Core5 students met program usage targets to a greater extent than all other programs in three of the four years in which program comparisons were made.

- Core5 significantly impacted students' performance on tests of reading achievement in grades K and 1 with medium to large effect sizes across all nine years of the initiative.

- In the five years that the initiative included all students in grades 2 and 3, Core5 had a significant impact in grade 3 with medium effect sizes.

Introduction

In 2015, the state of Utah introduced the Early Intervention Reading Software initiative to supplement student learning with the support of edtech programs. Here we review findings of the initiative through the 2023-24 school year. In school years 2015-2018, the edtech programs were used with all students in grades K–1 and with students at risk for reading difficulties in grades 2–3. Starting in the 2019-20 school year, all students in grades K–3 were included in the initiative.

The Evaluation and Training Institute (ETI) has served as an ongoing external evaluator of the initiative. ETI has assessed students program usage, and the impact programs have had on students' learning outcomes. Usage and impact data were reported separately for each program in eight of the nine years. The only exception was the 2019-20 school year when outcomes were based on half-year implementations and aggregated over programs due to the COVID pandemic.[1] Here we highlight outcomes from the ETI reports that focus on Core5.

Program Selection

Each year, schools participating in the Utah initiative selected among four to 11 reading programs. Statewide penetration for Core5 increased year after year, and it has become by far the most preferred program in the initiative. When the initiative first began, 17,346 students used Core5, and the average of the other programs was 7,364 students. During the 2023-24 school year, **Core5 was used by 116,268 students. This is 25 times more than the average of the other programs (4,536), and five times more than the next preferred program (23,441)**.

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[1] For this Integration Report, the 2019-20 school year will be referred to as the pandemic year.

Number of Students Using Core5
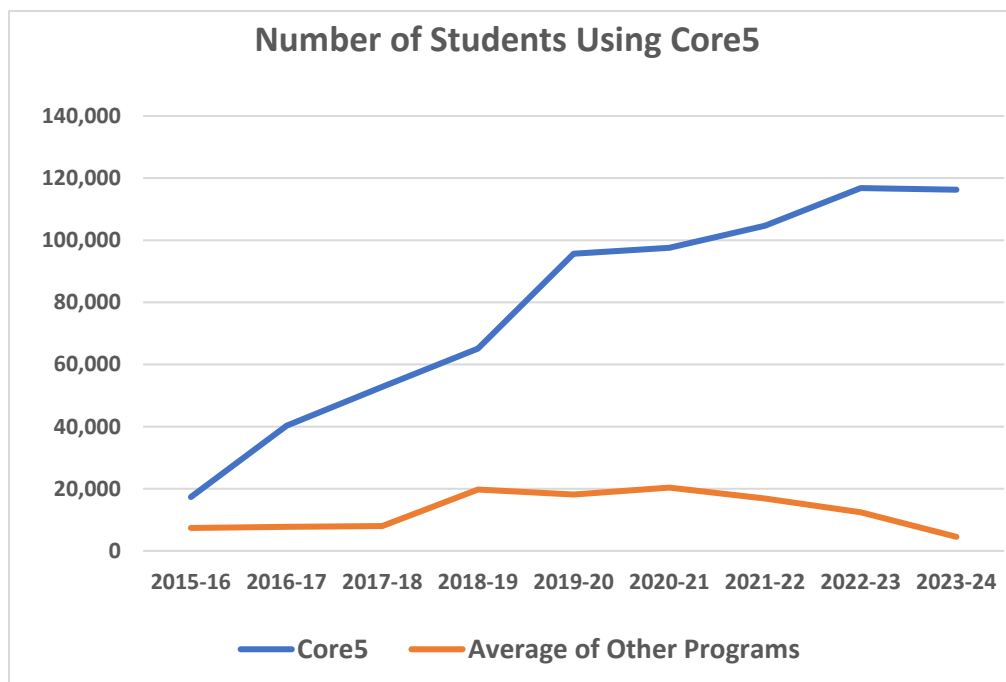
In 2023-24, **70,904** more students used Core5 than the other 10 programs combined.

Legend: Core5 | Average of Other Programs

Program Usage

ETI analyzed usage data separately for each program except the pandemic year. Overall, students using Core5 met program usage targets to a greater extent than students using other programs.

<u>Pre-pandemic years</u> (2015-16 – 2018-19). **In three of the four years, Core5 was ranked as the top program in percentage of students meeting usage targets.** The only exception was 2015-16 when Core5 ranked second in percentage of students meeting usage targets.

<u>Post-pandemic years</u> (2020-21 – 2023-24). **In each post-pandemic year, percentage of students meeting usage targets was higher for Core5 than outcomes reported for all programs combined.** Note that in the post-pandemic years, ETI reported outcomes for all programs combined and did not show percentages for individual programs.

Results from program usage data highlight the strength of Lexia Success Partnerships which were provided to schools that selected Core5 in the Utah initiative.

Learning Outcomes

ETI reported learning outcomes separately for each program except the pandemic year. Learning outcomes were based on two achievement tests that assess reading fluency – DIBELS (2015-16 – 2019-20) and Acadience Reading (2020-21 – 2023-24). Overall, Core5 had a significant impact on students' reading scores in each year of the Utah initiative.

Grades K and 1

Pre-pandemic years. Prior to the pandemic, **Core5 students showed significant gains in reading scores relative to control students in all four years for grade K and three of four years for grade 1.** Averaged over years, effect sizes were large in grade K and medium in grade 1.

Pandemic year. During the pandemic year, learning outcomes were aggregated across all programs in the initiative. **Students using the programs showed significant reading gains relative to control students in both grades K and 1.** Effect sizes were large for grade K and medium for grade 1. Given that Core5 was used by more students in grades K and 1 (61%) than all other programs combined (39%), these outcomes mainly reflect the impact of Core5.

Post-pandemic years. For the 2020-21 – 2022-23 school years, effect sizes were provided for individual programs. **During these years, Core5 students showed significant reading gains in grades K and 1.** Averaged over these years, effect sizes were large and medium for grades K and 1, respectively.

During the 2023-24 school year, learning outcomes were aggregated across all programs. **Students again showed significant reading gains in grades K and 1, and effect sizes were large in both grades.** Given that Core5 was used by more students in grades K and 1 (71%) than all other programs combined (29%), these outcomes mainly reflect the impact of Core5.

Together, these findings show that Core5 had a strong impact on the reading performance of students in grades K and 1.

Grades 2 and 3

<u>Pre-pandemic years</u>. In the pre-pandemic years, students in grades 2 and 3 were included in the initiative only if they were at-risk for reading difficulties. A limitation of this approach was pointed out in ETI's 2017-18 report: with only at-risk students included in both treatment and control groups, control students "were also likely to be identified by a teacher or school as needing help…. If control students had alternative reading interventions, such as tutoring, after school programs, or other types of support, then we would not necessarily expect to see a treatment effect." In the pre-pandemic years, across programs positive significant effects were not commonly observed. Over the four years, only 23% and 15% of programs in the initiative had significant reading gains in grades 2 and 3, respectively. Core5 showed no significant gains in grade 2 and one significant gain in grade 3.

<u>Pandemic year</u>. In contrast to the pre-pandemic years, all students in grades 2 and 3 were included in the initiative during the pandemic year and outcomes were aggregated across programs. **Treatment students showed significant reading gains with medium effect sizes in both grades 2 and 3**. Given that Core5 was used by more students in grades 2 and 3 (67%) than all other programs combined (33%), these outcomes mainly reflect the impact of Core5.

<u>Post-pandemic years</u>. Like the pandemic year, all students in grades 2 and 3 were included in the initiative during the post-pandemic years. For the 2020-21 – 2022-23 school years, effect sizes were provided for individual programs. **During these years Core5 had a significant positive impact on reading scores in all three years for grade 3 and one year for grade 2. Averaged over years, effect sizes were medium for both grades**.

During the 2023-24 school year, learning outcomes were aggregated across all programs. **Students showed significant reading gains in grade 3 but not in grade 2. The effect size in grade 3 was medium.** Given that Core5 was used by more students in grades 2 and 3 (73%) than all other programs combined (27%), these results mainly reflect the impact of Core5.

Outcomes from the pandemic and post-pandemic years show, in general, favorable effects of Core5 for students in grades 2 and 3.

	Average Effect Sizes for Significant Outcomes[2]			
	Grade K	Grade 1	Grade 2	Grade 3
Pre-Pandemic Years[3] 2015-16 – 2018-19	0.25	0.10	–	–
Pandemic Year[4] 2019-20	0.33	0.13	0.07	0.17
Post-Pandemic Years 2020-21 – 2022-23	0.37	0.19	0.06[5]	0.16
Post-Pandemic Year 2023-24[6]	0.40	0.32	–[7]	0.10

Kraft (2020) offers the following benchmarks for interpreting effect sizes of education interventions: <0.05 = Small; 0.05–0.19 = Medium; >0.20 = Large.

Multi-Year Impact

Given that the Early Intervention Reading Software initiative has been in place for nine years, it is possible to deduce trends in terms of the multi-year impact of using Core5. The trends are most evident in grades K and 1. Effect sizes in grade K have been strong since the onset of the initiative and continue to improve, while effect sizes in grade 1 have shown steady improvements from medium to large. It should be recognized that these are cross-sectional findings – that is, they are based on comparing different cohorts of students in the same grade year-over-year. Thus, the improvements are likely to reflect – among a host of unmeasured factors – how well educators are implementing Core5 with each new cohort of students. These multi-year outcomes point to the added benefits of using Core5 year-over-year for students in early elementary grades.

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[2] Shown for the pre-pandemic years and post-pandemic years 2020-21 – 2022-23 are average effect sizes collapsed over years. Though ETI's published reports for post-pandemic years did not include effect sizes for individual programs, during the 2020-21 – 2022-23 years ETI made available to each vendor effect sizes for their program in an unpublished internal memo.

[3] See text for why outcomes in grades 2 and 3 are omitted for pre-pandemic years.

[4] Though these results were aggregated over programs, they mainly reflect the impact of Core5 (see text).

[5] This average does not include the 2022-23 school year. ETI did not include effect sizes in reports if outcomes for a grade were not statistically significant.

[6] Though these results were aggregated over programs, they mainly reflect the impact of Core5 (see text).

[7] ETI did not include effect sizes in reports if outcomes for a grade were not statistically significant.

Want to Learn More?

For more information about the Utah initiative, see ETI's reports for the school years 2016-17, 2017-18, 2018-19, 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24.

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