ACCELERATING STUDENT SUCCESS IN THE COMMON CORE
RESEARCH PAPER

Accelerating Student Success in the Common Core

Introduction

Silicon Valley Community Foundation's mission is to focus on the community's most challenging problems, convene private- and public-sector leaders and initiate policy discussions at the regional, state and national levels.

In 2017, after a comprehensive community review process, SVCF's board approved five new grantmaking strategies: ensuring the safety and security of immigrants; advancing financial stability by improving access to public benefits; accelerating student success in the Common Core education standards; increasing affordable housing and public transit opportunities; and promoting greater civic participation through open government.

This research paper outlines our rationale for why success in the Common Core State Standards (CCSS), particularly in grades 4 and 5, is essential for increasing the number of students who progress academically, graduate from high school and do well in college and the workforce.

The Opportunity

Addressing achievement gaps continues to be the most pressing challenge for public education given the far-reaching implications for students' future opportunities in college and career. Forty-three states, including California, have adopted the Common Core State Standards in mathematics and English language arts. The CCSS were drafted by experts and teachers from across the country and have been shown to be more rigorous and effective in increasing student achievement than previous learning standards.¹ Specifically, the CCSS are designed to improve students' chances of success in college and careers by setting uniform standards for what students should know in math and English language arts by the end of each school year and by the time they graduate from high school. The standards involve substantial increases in the amount of nonfiction reading and writing, a greater emphasis on collaborative activities and the expectation that mathematics students are able to not only solve problems but explain how they did so.

In the spring of 2015, California students took the Smarter Balanced assessments aligned with the standards for the first time. After two years of statewide assessment data at the middle school level, as well as feedback from educators and extended learning providers, it has become clear that focused support for educators and students needs to start earlier, and that success in middle and high school mathematics requires strong literacy skills.² Mastery of both literacy and core mathematical concepts is a clear prerequisite to the transition to middle school.³

---

³ Ibid.
At the same time that California adopted the CCSS, it dramatically changed its financing system through the enactment of the Local Control Funding Formula (LCFF) in 2013. This new funding model is the most comprehensive education finance reform in California in nearly 40 years. It fundamentally changes the way education decisions are made, engages local stakeholders in these important decisions and targets additional resources to traditionally underserved students, including those who are low-income, English learners or in the foster care system. Under the LCFF, school districts, county offices of education and charter schools must prepare a Local Control and Accountability Plan (LCAP) that outlines how they will meet local and state priorities and how funding supports these activities. Using the LCAP, districts must develop measurable three-year goals for student outcomes that respond to eight priority areas: implementation of the CCSS, student achievement, student engagement, school climate, parental involvement, course access, extent to which teachers are credentialed and student outcomes in other subject areas.

School districts now have an unprecedented opportunity to help better prepare all students for educational and career success through the implementation of the CCSS and LCFF. SVCF intends to leverage this opportunity by supporting projects that are aligned with district LCAPs and that strengthen students' abilities in literacy and mathematics in grades 4 and 5 as an essential part of a district's instructional improvement agenda.

**Description of Grantmaking Strategy**

SVCF believes that support of CCSS implementation is important for both educators and students. SVCF will make strategic investments in programs that improve instruction through professional development of teachers and school site instructional leaders using integrated content approaches to accelerate students' academic performance in core subjects (reading, writing and mathematics) in grades 4 and 5. Severe teacher shortages and turnover, due in part to the region's high cost of living, as well as the challenge for school systems to find qualified substitutes, can make the delivery and effectiveness of professional development difficult. Fortunately, more technology tools are becoming available to help teachers implement fresh instructional strategies, collaborate with other colleagues and measure how those practices affect students in the classroom. Therefore, in evaluating proposals, SVCF will give special consideration to efforts that utilize new and innovative approaches to providing professional development, such as through MOOCs, social media and webinars.

Efforts to improve instruction in the classroom will be complemented by after-school and summer extended learning opportunities for students who are low-income and have academic needs. These programs should engage parents and guardians as active partners.

SVCF is particularly interested in supporting programs that holistically align these components: teachers and instructional leader preparation and professional development, delivery of integrated literacy and mathematics instruction, extended learning opportunities and parent-family school partnerships.

Lastly, SVCF will consider investments in research to determine teaching and learning impact as well as student- and school system-level outcomes.

---

4 The term MOOC stands for a massive open online course that has unlimited participation and open access via the web.
Rationale for Strategy

One of the key differences between the CCSS and previous learning standards is the CCSS focus on developing 21st century skills that require a foundation of critical thinking, problem-solving and resiliency. This means that strong literacy skills for all students, particularly English learners, are now of critical importance as students learn and develop proficiency in content areas such as mathematics and science. The Common Core State Standards for Mathematics include specific practices that require students to understand and use stated assumptions, definitions and previously established results in constructing arguments. Most notably, the California Common Core State Standards for Mathematics state that students in all grades will need to be able to listen to or read the arguments of others, decide whether they make sense and ask useful questions to clarify or improve the arguments.  

Up until the end of third grade, most children are learning to read. Beginning in the fourth grade, however, they are reading to learn, using their skills to gain more information in subjects such as mathematics and science, to solve problems, to think critically and to share that knowledge with the world around them. Data from statewide assessments indicate that fewer than half of the region's rising fourth grade students are reading at grade level – 45 percent in San Mateo County and 44 percent in Santa Clara County. And fewer than one-third of the region's low-income students are reading at grade level – 26 percent in San Mateo County and 32 percent in Santa Clara County. Emerging best practices in the field indicate that integrated instructional approaches are quickly becoming critical to address students’ need for continued literacy development as well as content exposure to mathematics in grades 4 and 5. We also know that many students need additional support beyond what they receive during the school day. Therefore, after-school and summer learning opportunities, particularly for struggling students who are low-income, are important.

This is not easy work. Most elementary teachers teach mathematics as one of several subjects, unlike teachers in middle school and high school. Elementary teachers need to be aware of and know how to support the particular challenges students face when reading mathematical text.

Students must first recognize mathematical symbols (e.g. +, ×, <) without any phonic cues, translate each symbol into English, connect the symbol to the mathematical concept it represents and finally carry out the mathematical operations indicated.

Current implementation efforts show that school site administrators need to develop new knowledge and capacity about curriculum, instruction and assessment, while teachers need more structured time to learn and implement standards-based practices.

---

Teacher shortages and turnover continue to stretch local education agencies already stressed by what is by nature an intensive human capital endeavor. While the laser sharp focus on educator professional development remains the key lever for increasing student outcomes, innovative and technology-based approaches to professional development are needed now more than ever.

**Anticipated Impact**

Every year, local districts and schools serve over 22,000 low-income fourth and fifth grade students and employ an estimated 647 teachers for fourth and fifth grades. The anticipated impact of this grantmaking strategy is to boost the achievement of at least half of these students over the next five years. Increases in achievement will be measured by the number of students who meet or exceed grade-level standards in English language arts and mathematics and who are on track to advance to the next level of mathematics coursework.

Effective teachers are essential for increasing student success. We intend to increase teachers’ effectiveness through professional development focused on integrated literacy and mathematics curriculum, instruction and assessment. Increases in effectiveness will be measured by the number of teachers who participate in professional development activities, demonstrate gains in relevant content knowledge and improve practices in their classrooms. We also believe that technology has the potential to be a game changer in how professional development is delivered, enabling teachers to learn anytime and anywhere.

The longer-term impacts associated with this grantmaking strategy include increased readiness of students entering middle grades with foundational literacy and mathematics skills; and success in college preparatory mathematics courses at the high school level.

**Conclusion**

As we develop our specific grantmaking strategies in this area, we expect that we will learn and make adjustments along the way. SVCF intends to invest in this strategy over the next five years, at which point we will conduct a systematic review of our progress. We firmly believe that improving integrated literacy and mathematics instruction has the potential to dramatically accelerate the academic progress of thousands of students in Silicon Valley.