

STRATEGIC EDUCATION FUND

In 2011, the Greater Houston Community Foundation (GHCF) launched the Strategic Education Fund (SEF)¹ to engage individual donors and foundations interested in improving public education. The SEF focuses on systems improvement in two areas: Instructional Effectiveness and Parent Engagement, especially in underserved communities. GHCF aims to increase individual giving to public education reform through this effort and to create a more informed donor community. This report was commissioned to provide background information about blended learning for the SEF executive committee as well as for potential funders and partners.

BLENDED LEARNING DEFINITION

Blended learning is a formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace **and** in part at a supervised brick-and-mortar location away from home.² The migration of online learning into physical school environments is not surprising, given that most students need a supervised place to learn during the day. Whereas students in traditional classrooms generally receive a single, unified curriculum, students in blended learning classrooms experience more self-pacing and personalized learning.

STUDY METHODOLOGY

This study represents a synthesis of data from the field consisting of two elements: 1) a review of prominent articles related to blended learning; and 2) interviews with 20 individuals directly involved in the field, including six school operators, seven developers, one board member of a charter school, three researchers, one policy expert, and two funders. Blended-learning schools studied include A. L. Holmes (district school in Detroit, MI), Alliance Technology Math and Science Schools (ATAMS – charter school in Los Angeles, CA), Carpe Diem Collegiate High School and Middle School (charter school in Yuma, AZ), Lake Elmo Elementary (district school in Stillwater, MN), KIPP Empower Academy (charter school in Los Angeles, CA), Mission Dolores Academy (private Catholic school in San Francisco, CA), and Rocketship Education (charter management organization (CMO) based in San Jose, CA).³ Six questions framed the study to elicit information about prominent models, success factors, costs, student outcomes, impact on teachers, and lessons learned.

KEY FINDINGS

The following key findings relate to the study questions: 1) blended learning is in its early stage -- 3 million students are participating in the U.S. and four models are emerging; 2) design and implementation factors are similar to those of traditional schools, but a learning management system is essential; 3) there is early evidence that blended schools cost about \$1,100 less per student per year but the variance is wide; 4) student gains are promising but results are inconclusive; 5) blended learning may change teachers' roles and help attract, retain and leverage the best while possibly reducing the number of teachers needed in a school; 6) blended learning should be considered for implementation only when it enhances instructional design, not for the purpose of merely adding technology to a school.

¹ See www.ghcf.org for further information about the GHCF Strategic Education Fund

² Staker and Horn, *Classifying K-12 Blended Learning*, Innosight Institute May 2012

³ See Appendix B of the full report; see *Emerging Blended School Models and School Profiles* at www.ghcf.org

EMERGING MODELS

Four models of blended learning are emerging: 1) *Rotation* -- students rotate on a fixed schedule or at the teacher's discretion between learning modalities, at least one of which is online learning; 2) *Flex* -- students move on an individually customized, fluid schedule among modalities with the teacher-of-record on-site; 3) *Self-blend* -- students attend physical school plus take one or more courses online with an off-site teacher of record; 4) *Enriched virtual* -- students divide their time between attending a physical campus and learning remotely through online instruction and content. The most common model to date is the self-blend model.

KEY SUCCESS FACTORS

Seven key design and implementation factors, many of which apply to traditional schools, emerged from the interviews and data synthesis. Forty-two percent of the respondents considered **leadership** an important success factor. **Strategic planning** and the development of a positive **school culture** were cited as critical variables to success. **Quality teachers and professional development** are a key factor in a blended-learning school, just as they are in any other school. Anthony Kim, Education Elements, stated: "It is important to realize that technology won't make up for poor human capital – that is still an important part of the equation." A solid **technology infrastructure** including sufficient bandwidth and reliable, cost effective laptops and/or notebooks is key to a functioning blended-learning school. A distinguishing design element in a blended-learning school is a robust **learning management system**, one that can provide accurate data teachers can trust about student progress toward rigorous standards. Those embarking on the blended-learning journey are also advised to have advocates from within a school as opposed to imposing technology from the top down and facilities that support these new educational models.

COST OF BLENDED LEARNING

On average, a blended model costs \$1,100 less per student per year than in traditional schools, but the variance is wide. Cost categories include labor, content acquisition and development, technology and infrastructure, school operations, and student support. Carpe Diem operates at about \$6,000 per student including facilities costs. Rocketship operates entirely on state funds and saves about \$500,000 annually for each school. Rocketship redeploys these savings into higher teacher salaries (about 20 percent more), an academic dean, leadership and teacher development, and future growth.

STUDENT OUTCOMES

A meta-analysis of 176 experimental or quasi-experimental studies found that, on average, students participating in online learning performed modestly better than those receiving face-to-face instruction.⁴ Differences were larger in studies that blended online with face-to-face versus online alone. However, only nine of the studies involved K-12 students and therefore the results cannot be generalized. Rocketship, KIPP Empower, and Carpe Diem had higher student achievement results than comparable schools and districts in the region and state, but their results, while promising, are based only on one to four years of data analysis. Charter schools have taken the lead on blended learning, but districts are engaging rapidly and more data on districts will be available soon.

⁴ See *Evaluation of Evidence-Based Practices in Online Learning: A Meta-analysis and Review of Online Learning Studies*, U.S. Department of Education, 2010

IMPACT ON TEACHERS

The potential for higher salaries, reduced menial tasks, and better student achievement may help schools attract and retain the best teachers. The best teachers can be leveraged to “boundless classrooms” through digital media. Matchbook learning theorizes that it can boost even an average teacher’s effectiveness, since smart-ware delivers so much of the instruction, allowing more time for teachers to use real-time data and lesson planning advice provided by the system to intervene strategically. The opportunity also exists to diversify instructional delivery by adding new professional roles such as lab facilitators, interventionists and tutors. KIPP Empower teachers have the second highest satisfaction levels among the 100 schools in the KIPP network. Higher student-to-teacher ratios among these schools – 28 to 1 to a high of 48 to 1 at ATAMS—may decrease the number of classroom teachers needed in a blended learning school.

LESSONS LEARNED

Operators offered lessons they considered most valuable. Smooth implementation is achieved through strong project management, sufficient lead time, and accurate estimates of up-front costs. Sufficient bandwidth, technology experts to support teachers and students, and staff training on the components of blended learning are essential elements of success. With a relentless focus on personalized, mastery learning that is the hallmark of these schools, it is critical that the learning management systems produce reliable data to measure student progress. Consistently the operators encourage educators to get into blended learning for the *right* reasons—to implement new instructional design, to close the achievement gap, to scale up and grow more rapidly, and to increase productivity—and not simply to add technology to a school or to save money.

POSSIBILITIES AND CHALLENGES AHEAD

Because there is early evidence that blended learning schools have lower capital and operating expenditures and positive student outcomes, blended learning is expanding rapidly. Forces that may contribute to an even more rapid expansion are a generation of young educators fluent in personal technologies, improvement of instructional technologies, the decline in funding for public education and the adoption of the common core standards in 48 states that eases the development task of content vendors. Perhaps the biggest obstacles to scaling blended learning are public policies around funding based on seat time, class size caps, restrictions on the supply of virtual education courses, and teacher credentialing rules that may prohibit tech savvy, talented individuals from serving in schools. Moving blended learning to the next level will require an investment in further research, pilot projects, and advocacy to create policies that are more favorable. We must do everything to remove regulations and policy restrictions that inhibit creativity and innovation when it comes to learning. With modern instructional technologies, students *can* learn anytime, anywhere, and at any pace.

GHCF RECOMMENDATIONS

Based on the findings in this report and conversations with local leaders, the SEF executive committee members have decided to support Houston’s first rotation model blended-learning implementation at KIPP Courage College Prep, a new middle school, which is part of the Spring Branch, KIPP Houston, and YES Prep (SKY) Partnership. KIPP Courage serves 104 college-bound fifth graders from Houston’s Spring Branch community and will grow to serve roughly 400 students in fifth through eighth grade by the 2015-2016 school year. Leaders of SEF believe in the principal of the school, Eric Schmidt, a Fisher Fellow, and in the leverage of a district/charter compact between Spring Branch ISD and KIPP Houston. KIPP will design this implementation with the help of a leading consultant. Caprice Young at the Laura and John Arnold Foundation is a key thought partner on this project. SEF seeks additional partners for the full implementation of this project and other blended learning projects that are emerging at charter and district schools in Houston.