

EMERGING BLENDED-LEARNING MODELS AND SCHOOL PROFILES

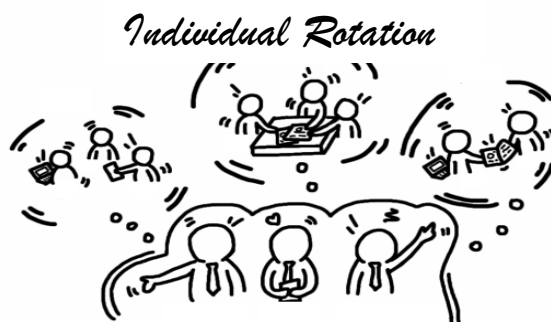
*By Marina Ballantyne Walne, EduStart LLC,
September 2012*



Station Rotation



Lab Rotation



Individual Rotation



Flipped Classroom



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Introduction

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. Donors can invest in the fund to facilitate effective education grant making with a minimum of monitoring costs through a top team that knows where the leverage points are in education. GHCF aims to increase individual giving to public education reform through this effort and to create a more informed donor community.

GHCF commissioned three documents to provide background information for the SEF executive committee as well as for potential funders and partners about emerging blended learning models and their implementation: an *Executive Summary*, *A Synthesis of Learning from Early Innovators: the Promise of Blended Learning*, and this report on *Emerging Blended-Learning Models and School Profiles* that provides an in depth look at the blended learning rotation models.²

This report is organized in two sections. Section one provides more detail on the four rotation models which are of most interest to the SEF. Section two presents seven profiles of blended learning schools based on interviews with school operators and/or developers and other information available from school websites and profiles previously created by Innosight Institute³.

- A. L. Holmes, district school in Detroit, MI, in partnership with Matchbook Learning
- Alliance Technology Math and Science Schools (ATAMS), a charter school in Los Angeles, CA, that is part of the Alliance College-Ready Public Schools network
- Carpe Diem Collegiate High School and Middle School, a charter school in Yuma, AZ
- Lake Elmo Elementary, a district school in Stillwater, MN
- KIPP Empower Academy, a charter school in Los Angeles, CA, part of the KIPP LA network
- Mission Dolores Academy, a private Catholic school in San Francisco, CA, in partnership with Seton Partners
- Rocketship Education, a charter management organization (CMO) based in San Jose, CA.

These schools represent the three primary sectors in K-12 education – public charter schools, public traditional district schools, and private schools.

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

² For the Executive Summary or the Synthesis of Learning Report, see www.ghcf.org

³ See *Blended-Learning Profiles*, Innosight Institute, available at <http://www.innosightinstitute.org/media-room/publications/blended-learning/blended-learning-profiles-all-profiles/>, accessed on July 13, 2012.

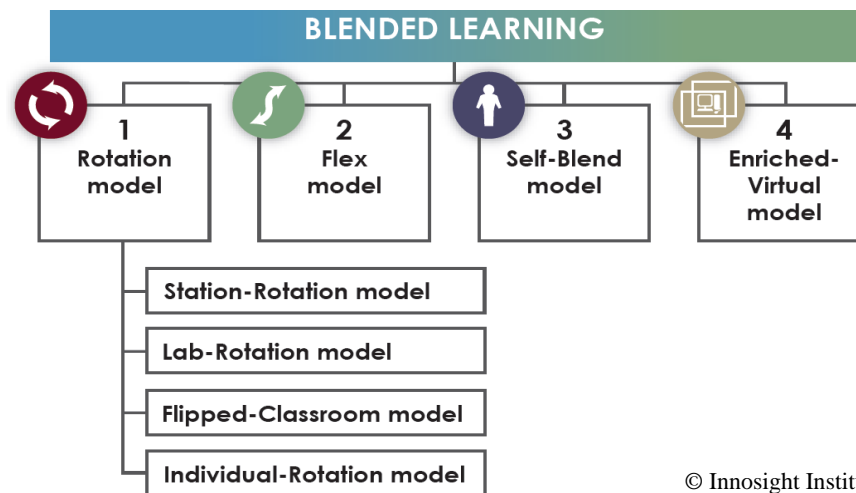
I. Rotation Blended-Learning Models

Blended learning is defined as 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* at least in part at a supervised brick-and-mortar location away from home (© Innosight Institute 2012).⁴

In the face of bleak budgets and looming teacher shortages, districts and charters are increasingly turning to blended learning for part of the solution. The attraction to blended learning comes from the theory that use of the Internet to deliver instruction and content can help personalize each student's education, thereby improving results, and at the same time maintain or even lower operating costs.

For now, four models of blended learning have become most prominent across K-12 schools. Innosight Institute published a white paper in May 2012 titled *Classifying K-12 Blended Learning* that provides a definition of blended learning and a taxonomy that categorizes blended learning models.⁵ The researchers arrived upon the taxonomy by observing roughly 80 blended learning implementations across the country and by interviewing over 100 educators involved in the space. The taxonomy in **Figure 1**, as well as all of the definitions and diagrams of blended-learning models that follow, are excerpts from the Innosight Institute paper.

Figure 1: Blended Learning Models Developing in the K-12 Sector



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The SEF is particularly interested in piloting one of the blended-learning rotation models in Houston and we therefore provide more detail about the benefits and challenges of each of the four rotation models.

⁴ Heather Staker and Michael Horn, *Classifying K-12 Blended Learning*, Innosight Institute, May 2012.

⁵ See Heather Staker and Michael Horn, *Classifying K-12 Blended Learning*, Innosight Institute, May 2012, <http://www.innosightinstitute.org/innosight/wp-content/uploads/2012/05/Classifying-K-12-blended-learning2.pdf>. Figure 2 and the definitions that follow it are from that report.

Rotation Models

As blended learning becomes more and more of a hot topic in education circles, the question often arises of: which blended learning model is the best? Understandably, the field wants direction about which model will produce the best results, both in terms of student achievement and teacher satisfaction. The question, however, presents the wrong framing of the problem. Each blended learning model accomplishes something different. A better angle for discussion is to consider the benefits and drawbacks of each model and then to match them to the needs of clusters of students.

For example, JeffCo Public Schools in Golden, Colorado offers three different blended learning models plus a full-time online option to provide a menu of possibilities to its students.⁶ Its Flex-model implementation is geared to high school students who need to do credit recovery. They can attend a brick-and-mortar lab to do online coursework with a certified teacher in the room who offers support and answers questions. JeffCo's Self-Blend option is for high school and middle school students who want to take a blend of online and traditional courses. All students in the district have access to JeffCo's online school and can take a combination of online and face-to-face courses. Middle school students can take these courses in a lab on campus during their block scheduling with paraprofessionals supervising them. Finally, JeffCo offers an option which it calls the "hybrid option," but which fits within the framework of the Enriched Virtual model. Students in this program meet with a face-to-face teacher one to two times per week and then complete the rest of their work online remotely. The same teacher supervises both modalities. This option has helped deal with large class sizes and allowed teachers more time with smaller cohorts of students.

This section of the report highlights the main benefits and challenges that are beginning to present themselves with each of the rotation blended-learning models. The final section then presents at least one case study for each model for illustrative purposes.

A. Station-Rotation model

Definition: A rotation-model implementation in which within a given course or subject (e.g., math), students rotate *on a fixed schedule or at the teacher's discretion* among classroom-based learning modalities. The rotation includes at least one station for online learning. Other stations might include activities such as small-group or full-class instruction, group projects, individual tutoring, and pencil-and-paper assignments. Some implementations involve the entire class alternating among activities together, whereas others divide into small-group or one-by-one rotations. The Station-Rotation model differs from the Individual-Rotation model because students rotate through all of the stations, not only those on their customized schedules.

Benefits:

- Requires very little adjustment to teacher contracts, facility design, or the classroom overall. It's just a new way for teachers to organize the flow of time within their classrooms.
- Allows teachers to work with smaller groups of students. Can help ameliorate the problem of high student-teacher ratios. Some schools have implemented a Station-Rotation model to deal with large class sizes.

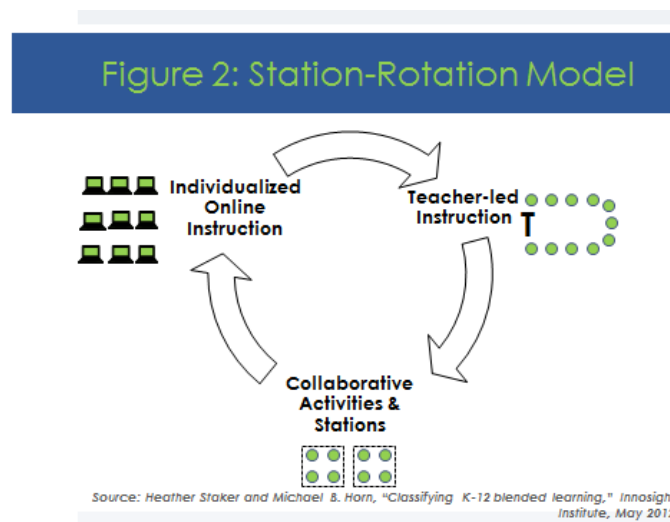
⁶ "JeffCo Public Schools," Innosight Institute blended-learning profiles database, <http://www.innosightinstitute.org/blended-learning-2/blprofiles-usersubmissions/jeffco-public-schools/>, accessed March 27, 2012.

- Facilitates the use of project-based learning as a station to complement the online-learning station.

Challenges:

- Teachers need to learn new skills, such as how to plan the right small groups for face-to-face time in response to the data that the online-learning station is generating.
- Classrooms need a robust learning management system to help fit each student to the right online content and to generate actionable reports for teachers.
- The online-learning station needs to be easy for students to do on their own with minimal adult intervention.

Figure 2 illustrates the Station-Rotation model. For an example of this model, see KIPP Empower Academy Case Study on page 17 in this report.



B. Lab-Rotation model

Definition: A rotation-model implementation in which within a given course or subject (e.g., math), students rotate *on a fixed schedule or at the teacher's discretion* among locations on the brick-and-mortar campus. At least one is a learning lab for predominantly online learning, while the additional classroom(s) house other learning modalities.

Benefits:

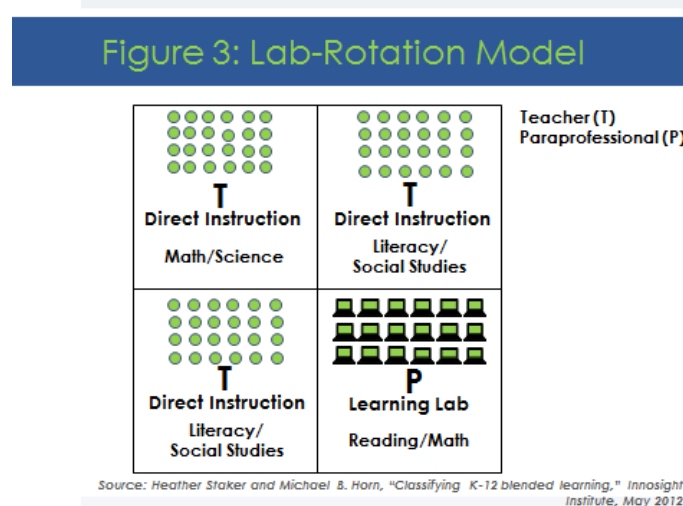
- Requires very little adjustment to teacher contracts, facility design, or the classroom overall, other than provisioning a computer lab and changing the block schedule.
- Some experts estimate that if students rotate to a lab with online learning and paraprofessional supervision instead of face-to-face teacher-led instruction for 25-50 percent of their day, school leaders will net out with an increase of \$1,000-2,000 per student per year, less \$300-500 per student for the online platform. They can then redirect these funds to other priorities.

Challenges:

- So far, there is little evidence of face-to-face teachers using the results and progress from the learning lab to adapt the way they teach the students back in the face-to-face classroom. There is not good linkage between the two modalities.

- Learning labs need a robust learning management system to help fit each student to the right online content and to generate actionable reports for teachers.
- The online-learning modality needs to be easy for students to do on their own with minimal adult intervention, because generally students are supervised by paraprofessionals with little training.

Figure 3 illustrates this model. For an example, see Rocketship Education Case Study on page 23 of this report.



C. Flipped-Classroom model

Definition: A rotation-model implementation in which within a given course or subject (e.g., math), students rotate *on a fixed schedule* between face-to-face teacher-guided practice on campus during the standard school day and online delivery of instruction and content of the same subject from a remote location (often home) after school. The primary content instruction is online, which differentiates a Flipped Classroom from students who are merely doing homework practice online at night.

Benefits:

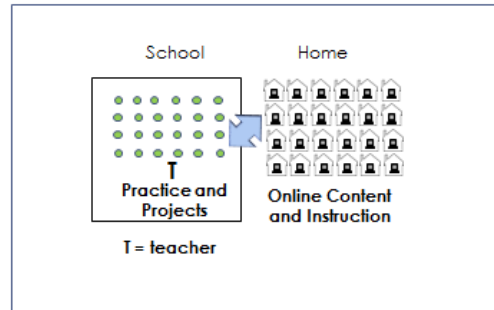
- Frees up time in class for teachers to help with problem sets and more open-ended projects because students have already watched the lectures at home.
- Helps students who struggle to do homework on their own at night. Now they can get help with assignments at school with a teacher. Plus, students can watch lectures on-demand at home and can repeat it if they need to review it again.
- Does not require adjustment to teacher contracts, facilities, or schedules.

Challenges:

- All students need reliable connected devices at home.
- Teachers need to be trained to fundamentally alter their role.
- Does not appear to lower costs.

Figure 4 illustrates this model. For an example, see Lake Elmo Elementary Case Study on page 19 of this report

Figure 4: Flipped-Classroom Model



Source: Heather Staker and Michael B. Horn, "Classifying K-12 blended learning," Innosight Institute, May 2012

D. Individual-Rotation model

Definition: A rotation-model implementation in which within a given course or subject (e.g. math), students rotate on an *individually customized, fixed schedule* among learning modalities, at least one of which is online learning. An algorithm⁷ or teachers set individual student schedules. The Individual Rotation model differs from the other Rotation models because students do not necessarily rotate to each available station or modality.

Benefits:

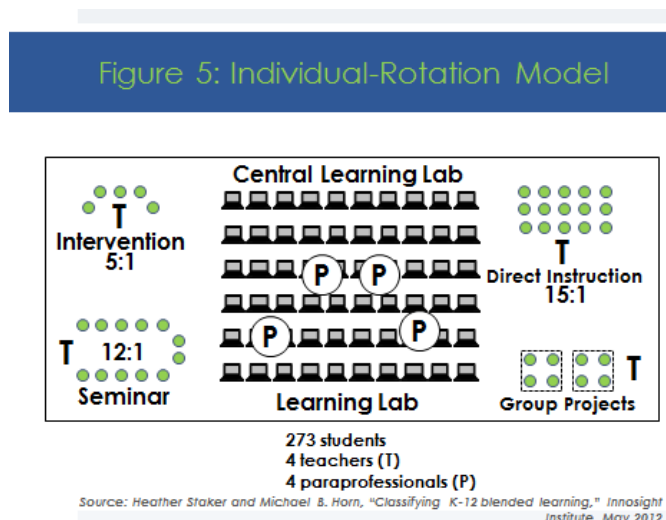
- Allows each student to work at his or her own pace with a custom playlist.
- Students can use the modality that works best for them for each concept. Some may benefit from learning mostly online, while others will work best with pencil and paper or face-to-face lecturing.
- The fixed scheduling might work better for students who need a more predictable routine and scheduled face-to-face check-ins than the Flex, Self-Blend, or Enriched Virtual models provide.

Challenges:

- Requires a transformation of the teaching role, facilities, and delivery of instruction and content.
- The fixed schedules might be confining to students who could learn faster with a more flexible schedule.

⁷ An algorithm written into the learning management system can assess student's progress through the online content and automatically redirect a student to more advanced material or remedial content. See School of One for an example at www.schoolofone.org

Figure 5 illustrates this model. For an example, see the Carpe Diem Case Study on page 15 of this report.



II. Profiles of Blended-Learning Schools

Viewing blended learning from a theoretical framework and understanding the distribution of blended learning models is helpful, but to gain a more thorough understanding of what blended learning is and what it can do to increase student achievement and maintain or lower costs, the reader needs to see these schools in action. The next section provides a “virtual road trip” through seven blended learning schools using each of the four blended learning rotation models and representing each sector in the K-12 market – public district, public charter, and private schools.

Profile: A.L. Holmes Elementary School⁸

In partnership with Matchbook Learning

Matchbook Learning focuses on turning around the nation’s bottom five percent of schools. Its operating thesis is that online teachers and curriculum, along with site coordinators who instill a culture of feedback and data-based management, can provide a scalable form of scaffolding for local teachers and administrators to help even mediocre educators become excellent.

⁸ The information for this profile draws from an interview with Sajan George and information from the school’s and Matchbook Learning’s websites.

School Overview		Blended-learning Implementation	
School type	District school	Model	Individual-Rotation model
Headquarters	Detroit, MI	Key aspects	Students rotate in customized groups between online content and a face-to-face teacher to personalize instruction for each student and to improve effectiveness.
Focus	Urban		
Grades served/ Enrollment	K-8/430 students		
% Free Reduced Lunch	88%	Blended grades/ Enrollment	K-8/ 430 students
Public revenue/pupil	\$11,896	Technology providers	Compass Learning; Education Elements; Wireless Generation
Student: Teacher ⁹	25:1		

Context and Overview

A.L. Holmes Elementary School is one of the nation's bottom five percent turnaround schools. In the summer of 2011, Detroit City School District engaged Matchbook Learning to lead a turnaround effort for the struggling A.L. Holmes Elementary School. Matchbook Learning is a start-up turnaround firm that specializes in helping the bottom five percent of schools in America become excellent schools, in part by leveraging the potential of blended learning. "I believe that through blended learning, previously underperforming teachers can become great teachers. That's our thesis," said Sajan George, founder and CEO of Matchbook Learning. George brings to Matchbook Learning years of expertise as the managing director of the education practice at the global professional services firm Alvarez & Marsal, which specializes in corporate restructuring. He left that firm to launch Matchbook Learning and help to reclaim some of America's most troubled schools. Matchbook Learning does not seek to run schools in perpetuity as charter schools do or to replace 100 percent of the local teaching staff with its own staff, as independent schools often do. Instead, it turns back the school to the school district to run using the new blended learning design at the conclusion of the turnaround contract.

For the 2011-12 school year, Matchbook Learning is focused on grades 3-8. It expanded to implement its blended program in all grades K-8 in the fall of 2012, adding a second turnaround school in Detroit with the Education Achievement Authority.

Blended-Learning model

Matchbook Learning has implemented the *Individual-Rotation model* of blended learning at A.L. Holmes. Within each subject, small groups of students rotate on a customized schedule among learning modalities, at least one of which is online learning.¹⁰ Matchbook Learning has subcontracted with Education Elements for their hybrid learning management system platform and with Compass Learning for their core curriculum content. It has also retained the local face-to-face teachers.

⁹ GreatSchools, "Holmes, A.L. Elementary School," <http://www.greatschools.org/michigan/detroit/1045-Holmes-A.L.-Elementary-School/>, accessed 8 May 12.

¹⁰ Heather Staker and Michael B. Horn, "Classifying K-12 blended learning," Innosight Institute, May 2012, <http://www.innosightinstitute.org/innosight/wp-content/uploads/2012/05/Classifying-K-12-blended-learning.pdf>.

Matchbook Learning places two full-time Program Managers onsite, skilled in blended instructional coaching whose primary job is to observe teachers daily and communicate and review student achievement data bi-weekly. The students all have netbooks and rotate on a fixed schedule among modalities, but each group has a unique playlist of where to be and when. They spend roughly half their time with face-to-face teachers, half with online content.

Matchbook Learning chose to deploy the Individual-Rotation model because George and his team believe that for below-grade-level students, teachers need to be able to personalize instruction for each student to get him or her back on track. The blended model allows teachers to customize the learning pathway for students on a week-by-week basis. George's team also believes that the teacher is essential to the students' success. The Individual-Rotation model preserves and strengthens the critical role of the teachers in the students' learning. The goal is to use the online resources to make the face-to-face teachers more effective.

Design and Implementation Success Factors

Matchbook Learning has developed a 206-step process to transform a school from traditional to blended. George said that four factors are critical to the success of the implementation:

1. Delivering adequate bandwidth, capacity and other infrastructure needs.
2. Establishing a feedback culture. Principals and teachers need to be willing to be coached daily. They need to be open to classroom observation, rapid feedback, and rapid prototyping. Buy-in from them is essential.
3. Leveraging data feedback and analysis. Administrators and teachers need to be able to look at the data formally and informally and draw conclusions. What does the data say? Did what they tried work?
4. Choosing and deploying an effective blended-learning design. This is a different notion from the idea of choosing the right blended-learning model. It's about design principles. For example, one principle is that the model needs to be teacher-centric to work for the turnaround population. Research has shown that the top success factor is a good teacher. That's much more important than a fast learning management system and quality devices.

Financial Impact

The financial implications of the Matchbook Learning model at A.L. Holmes Elementary School have initially been negative, but the Matchbook Learning team believes that over time it can produce some significant cost efficiencies. **Table 3** lists the cost and savings implications of the blended-learning implementation.

**Table 3: Cost and Savings Estimates for Matchbook Learning Implementation
at A.L. Holmes Elementary School**

Initial costs	<ul style="list-style-type: none"> • \$300 per student for 1:1 computing • \$20,000-30,000 to put in a T1 or T3 line for broadband if the school does not have that yet
Ongoing expenses	<ul style="list-style-type: none"> • \$75 per student per year for content
Possible efficiencies	<ul style="list-style-type: none"> • Some costs to train on-site teachers • Increased class sizes • Eliminating extended day and summer school because students learn more efficiently during the traditional day and because students can take the computers home for extended day at zero cost • Matchbook Learning will help supplemental education services run more efficiently, which will reap savings

Student Outcomes

The Matchbook Learning implementation at A.L. Holmes has yielded positive results. In a comparison of pre- and post-test results on Connections Learning's LEAP test which is aligned and correlated to Michigan's state standards, 74% of the students in Reading and 83% of the students in math made gains of 10% or more from pre- to post-test. Breaking the pre- and post-test results down further, 38% of the students made gains between 10% and 20%; 33% made gains between 20% and 30%; 29% made gains greater than 30%. Enrollment in the school has increased 15 percent, a notable feat in a district that is closing schools because of emigration. Indeed, Detroit's student population has declined from 150,000 to 60,000 students in recent years. A.L. Holmes is one of the only schools in the city that is growing, according to Sajan George.

Furthermore, nine out of 30 students in the graduating eighth-grade class have qualified for one of the top magnet high schools in the area based on early results from their 2011-12 performance. The district has asked Matchbook Learning to expand to grades K-2 in the fall because of impressive early results.

Impact on Teacher Roles

The teacher role changes significantly under the Matchbook Learning model. Instead of working in silos, with each classroom relatively independent from outside help, the new model wraps the classroom and teacher in a strong scaffolding of support. Online teachers work weekly with the face-to-face teachers to set goals and design the learning rotations. Matchbook Learning site coordinators and the principal are involved in daily classroom observation. They coach teachers on how and where to intersect and intervene to make the experience more meaningful for students. A robust data system monitors results on a day-by-day basis, and Matchbook Learning insists on continual data analysis to measure the effectiveness of daily strategies.

The local teachers found the transition from a traditional model to a blended-learning model very challenging and frustrating from time to time during the first three months. However, by month four, they had persevered through the steep learning curve and their perspectives had changed. In a recent survey of all teachers in grades 3-8 at A.L. Holmes, a full 100 percent of teachers claimed they would not go back to the time before the school was blended. These were all teachers that Matchbook Learning inherited when it began at the school, not any that it had recruited.

Future Plans

Matchbook Learning is expanding their model at A. L. Holmes with a new subcontractor partner, Education Elements, and has been awarded a second turnaround school, Brenda Scott Elementary, by Michigan's Educational Achievement Authority. Matchbook Learning has also been asked by the Chicago Public Schools to consider bringing their turnaround blended model to Chicago public schools to help turnaround their bottom 5% of schools starting in 2013 and has been approved by the Achievement School District in TN for one or more turnaround schools in fall 2013. Matchbook Learning was recently awarded a \$150,000 Next Generation Learning Grant from Educause.

Profile: Alliance Technology Math and Science Schools

Alliance College-Ready Public Schools began eight years ago with the mission to prove that children in even the most disadvantaged communities could become eligible for college. Budget constraints and a desire to increase personalization in learning compelled Alliance to pilot blended learning, first in summer school, then in a 9th grade program, and this past year in the Alliance Technology Math and Science Schools (ATAMS), a full 9-11 blended learning implementation. Results in the pilots and early results at ATAMS are very promising, leading Alliance to open a new blended learning high school in the Los Angeles area and converting three middle schools starting with three 6th grades. Early estimates are that each blended-learning school will save \$1,000,000 over four years.

School Overview		Blended-Learning Implementation	
School type	Charter school	Model	Station-Rotation model
Headquarters	Los Angeles, California	Key aspects	Students learn online for 50 - 75 percent of the school time. Classes are divided into three student groups that cycle through a learning circle of: individualized online instruction; focused teacher-led instruction based on data from online-content systems; and collaborative learning stations with structured, standards-based projects.
Focus	Urban		
Grades served/ Enrollment	9-12/ 450 students		
% Free Reduced Lunches	73%	Blended grades	9-12
% Black or Hispanic	100%	Technology providers	Revolution Prep (math), Achieve 3000 (English), NROC, Compass Learning, APEX, My Access Writing, open sources
Public revenue/ pupil	\$7,500		
Student: Teacher	30:1 for 9 th grade; 48:1 grades 10-12		

Context and Overview

In 2004, Alliance opened a single high school with a promise of preparing students in areas of Los Angeles with historically low-performing schools for success in college and future careers. Since that time, the Alliance has grown to 21 schools – 6 middle and 15 high schools – serving just over 9,500 students. All Alliance schools, including ATAMS, are committed to the following five core values: high expectations for all students, small and personalized schools, increased instructional time,

highly qualified principals and teachers, and parents as partners. In June 2012, the eight Alliance high schools could boast the following results: 96% of Alliance seniors graduated and 99% of those graduates are planning to attend a wide range of colleges across the nation.

Frank Baxter, Board co-chairman of Alliance, realized that “although we were quite successful as a charter management organization, what we were doing was neither scalable nor could lead to rapid growth.” He saw blended learning as the pathway to enabling Alliance to be more productive and make faster progress toward its goal of “every student in the nation having a great education.” Alliance piloted blended learning prior to its first full-scale implementation at ATAMS, which opened in the fall of 2011 and enrolled about 300 students.

Blended-learning model

ATAMS’ blended-learning model, the Blended Learning for Alliance School Transformation (BLAST) was spearheaded by the Alliance College-Ready Public Schools CMO as a pilot program in the summer of 2010. This *Station-Rotation* blended-learning model rotates groups of students within a classroom or subject area on a customized schedule. It involves extending most class periods to 120 minutes. Within each class period, the students learn online for 50 to 75 percent of the time, with the exception of English and physical education, where online learning constitutes 30 to 50 percent of the time. Teachers divide their classes into three student groups that cycle through a learning circle, including: (1) individualized online instruction using adaptive content; (2) focused teacher-led small group instruction based on data from online-content systems to set the level for each group; and (3) learning stations with structured, collaborative, standards-based activities, enabling peer-to-peer cooperation and fostering creativity by constructing presentations, videos, and other media together.

The BLAST Learning Lab, another component of ATAMS’s blended learning model, lets students take online courses for credit recovery, Advanced Placement, and Early College courses in their own timeframe, so students do not need to wait for a full classroom to be engaged in learning. “With digital content, every student knows what he or she needs to do to complete the agenda,” states Mickie Tubbs, principal. “Kids assign themselves and each other homework. They average 90 minutes of self-imposed homework a day.”

Design and Implementation Success Factors

Frank Baxter cited three key design factors: 1) the importance of having a strategic plan, even if you end up changing it quickly; 2) having advocates from within who can secure buy-in from teachers; and 3) facilities that can accommodate student-teacher ratios of up to 48-to-1. For conversion schools, he recommends implementing blended learning one grade at a time and adds that the “ease of conversion depends on the principal and his or her leadership and personal qualities.” Mickie Tubbs stressed the importance of creating a problem-solving, solution oriented school culture that focuses on empowering students to achieve mastery learning.

Financial Impact

With 9th grade student-teacher ratios of 36-to-1 and a 48-to-1 ratio in other grades, the BLAST model implemented at ATAMS promises significant cost-savings. In a traditional Alliance school of 600, there are 26 teachers; ATAMS at full capacity will only have 17. Frank Baxter estimates that the costs savings in human capital and textbooks will be about \$1 million per school over a four-year period. Surpluses go towards upgrading the school’s technology — 1-to-1 laptops that need to be refreshed every three years — and investment in future BLAST-centered schools.

One specific example of costs savings cited by Mickie Tubbs is a single teacher broadcasting Spanish into several classrooms at a nominal cost for this service. The teacher will soon will be broadcasting into five schools, distributing the costs even further. Only a teacher's aide is needed in the classroom to facilitate. She also notes that 15% of ATAMS current population are special education students with individual learning plans. "Because the program works just as well for students on the low end and high end of the achievement spectrum," states Mickie Tubbs, "we expect to see even more savings down the line."

Student Outcomes

Data on ATAMS's student state standardized test performance will not be available until the fall of 2012. However, the results in the 2010-2011 pilot year of the program show great promise. The percentage of students scoring proficient or advanced in Algebra grew from 8% to 46% at one school and from 10% to 26% at the other, based on the 2010 California Standards Test (CST) 8th grade data of the incoming 9th grade class compared to the 2011 CST scores of the same class' 9th grade data. In English Language Arts, student proficiency grew from 14% to 24% at one school and 21% to 33% at the other. ATAMS' data from the first semester was positive. Thirty percent of the 11th grade students whom the school inherited had never attempted the state exit test. All of them passed the first time they took the test at ATAMS.

Impact on Teacher Roles

Mickie Tubbs was able to hire teachers already immersed in the Alliance practices and values and who had some exposure to blended learning, but there was still a "steep learning curve for the first few weeks." ATAMS teachers needed to become familiar with the online content, learning management system, and shift to more small-group, targeted instruction informed by the data. New teachers, many of whom are TFA alums hired by Alliance because of Los Angeles Unified School District's last-in/first-out policies, are trained by going through the Alliance professional development program: summer boot camp to learn the five core values and instructional practices and training on the BLAST process, delivered primarily by current teachers, or "critical friends" who are now masters of the various components of the BLAST system. ATAMS added a BLAST learning coordinator who works with teachers when they need assistance.

Alliance leaders are in conversations with Loyola Marymount University about developing a new teacher residency program through the University's school of education that will train teachers in the use of blended learning instructional models to improve student learning. Frank Baxter notes that "blended learning can leverage your most talented individuals and broadcast their teaching widely." He added that "Alliance does not yet pay teachers in blended schools more but has this as a longer-term goal." "In an ideal system," he stated, "you could have fewer teachers and pay them more, significantly enhancing recruitment and retention."

One TFA alumna who was in her 4th year of teaching but first year at the school said: "It took me 3 years to get to where I thought I was a good teacher. But now I know that I wasn't even close. I could only teach to about 1/3 of the entire class – the 1/3 that needed the most help. Now with this rotation model, I can teach all of the students to reach individual mastery levels."

■ **Mickie Tubbs,
ATAMS**

Future Plans

The current ATAMS school has an ultimate goal of growing to 600 students by 2014. In the fall of 2012, Alliance will add a new blended learning high school in the Los Angeles area and convert three middle schools to blended learning starting with three 6th grades. “I am virtually certain that if you have 12-years of blended learning, that all students in that system will be able to successfully complete at least the first or second year of college while they are still in high school, “ states Frank Baxter with great confidence and enthusiasm.

Profile: Carpe Diem¹¹

Carpe Diem provides 6-12th grade students with the option of a campus or online blended/hybrid learning experience consisting of on-site teacher-facilitators (coaches) and computer-assisted instruction (CAI). Carpe Diem’s model is conducive to more efficient learning by providing students with choice, individually-tailored plans, and the ability to transcend traditional learning levels by doing things like completing courses for college credit and applying for career interest internships.

School overview		Blended-learning implementation	
School type	Charter school	Model	Individual-Rotation model
Headquarters	Yuma, Arizona	Key aspects	Fifty-five-minute periods, rotating from online for concept introduction and instruction to face-to-face for reinforcement and application.
Focus	Urban		
Grades/ Enrollment	6-12/ 273 students		
% Free Reduced Lunches	61%	Blended grades/ Enrollment	6-12/ 273 students
Public revenue/pupil	\$6,639	Technology providers	e2020; NWEA; FLVS; A+; PowerSchool provides the grade book, report cards, and the attendance records

Context and Overview

In 2003, Carpe Diem’s executive director, Rick Ogston, began developing the current blended model. In 2005, faced with the loss of the church facility in which they were operating, school leaders put in place a new blended model and moved to a temporary location in a University of Phoenix Building. In 2006, they relocated to the new building that was custom designed for their blended approach.

¹¹ The information for this case study is based in part on data from Innosight Institute’s Carpe Diem Collegiate High School and Middle School (CDCHS) profile, located at <http://www.innosightinstitute.org/blended-learning-2/blprofiles-innosight/carpe-diem-collegiate-high-school-and-middle-school-cdchs/>. It also draws from the school’s website, Michael Horn’s blog, available at <http://www.innosightinstitute.org/education-blog/bright-spots-shine-in-blended-online-learning/>, and from email exchanges with Rick Ogston.

Blended-learning model

The new building has 300 individual cubicles and computers housed in a central learning center, which is similar in layout to a call center. Students attend classes four days a week, for 8 hours a day. Students attend 145 school days per year and receive a total of 1,007 hours of instruction. Typically, there is little or no outside homework. Students rotate every 35 minutes through the day between online activities in the learning center and face-to-face classroom instruction where a “coach” or teacher re-teachers, enhances, or applies the material introduced online, a fitness center staffed with a personal trainer and breaks for lunch and outdoor activities.



Carpe Diem uses e2020 for content, which it prefers because of its multi-modal, pedagogical approach; students must type, listen, watch video instruction, read text, explore links, and take short-cycle assessments. The school doubles up on assessments by contracting with Northwest Education Association (NWEA) to conduct extra-curricular assessments, which enables the school not to rely on e2020 alone to assess the effectiveness of the e2020 content. It also uses uBoosts online recognition and reward system for progress tracking, and a secure online portal to provide parents with real-time student data. Subject mastery, not course completion, is Carpe Diem’s touchstone.

Financial Impact

Savings on labor costs are substantial because of a model that allows for only four certified teachers FTEs (plus various support staff) for 273 students. In addition, Carpe Diem’s new building, opened in 2006, contains only five traditional classrooms, which is fewer than half as many as a traditional school requires for a similar enrollment level. The building cost \$2.7 million, in stark comparison to the neighboring traditional schools costing roughly \$12 million and accommodating only 200 more students than Carpe Diem, which means it will cost more than twice the capital expenditure per pupil as the Carpe Diem building.

Student Outcomes

In 2010, Carpe Diem ranked first in its county in student performance in math and reading and ranked among the top 10% of Arizona charter schools. For 2011, Carpe Diem outperformed that state, region and local middle and high schools in math and reading. *Business Week* recognized Carpe Diem as one of the top high schools in America in its 2009 report and *U.S. News and World Report* gave Carpe Diem the same recognition in its 2010 report.

Impact on Teacher Roles

Carpe Diem has made significant changes to the traditional instructional delivery model and teachers’ roles. Carpe Diem only hires four full-time certified teachers: one for math, language arts, science, and social studies. These teachers serve as coaches during the face-to-face classroom time. They teach all of the students in the school; for example, the math teacher alone provides face-to-face math instruction that the 273 students receive throughout the week. Furthermore, the same teacher

teaches all grade levels, so that teacher is able to provide continuity as students progress through the system. During online instruction periods, “assistant coaches” offer direction and help. Assistant coaches are highly qualified paraprofessionals in accordance with state standards, but are not necessarily certified teachers.

Future Plans

Carpe Diem obtained approval from the State Board for Charter Schools to scale the Carpe Diem model. Carpe Diem now offers the Carpe Diem Yuma Campus (Our Place), serving grades 6-12, or Carpe Diem Online (Your Place), serving grades 7-12 which utilizes strategically located Student Support Centers in Yuma, Scottsdale, San Tan Valley, and Mesa, Az. Working with State Superintendent Tony Bennet in Indiana, Carpe Diem opened a new campus in Indianapolis in August 2012. Awarded six charters by the Indiana State Board for Charter Schools, Carpe Diem plans to build a network of schools in Indiana while exploring options in other states.

Profile: KIPP, Empower Academy (KIPP LA Schools)¹²

KIPP Empower Academy, located in South Los Angeles, is the first school in the KIPP network to implement a blended learning model, a Station-Rotation model. The school opened in fall 2010 with Kindergarten and this fall will have grades K-2. KIPP Empower costs close to \$1,000 less per student per year to operate, due to higher student-teacher ratios. Student outcomes, teacher satisfaction, and parent satisfaction results have catapulted KIPP Empower to one of the top schools in the KIPP network in its first two years.

School Overview		Blended-Learning Implementation	
School type	Charter school	Model	Station-Rotation model
Headquarters	Los Angeles, California	Key aspects	Students rotate among on-line learning, small-group, and individual instruction stations within each classroom. Groups are determined by STEP test results before students begin the school year; groups are fluid based on interim test scores.
Focus	Urban		
Grades served/ Enrollment	K-2/330 students		
% Black or Hispanic	99%	Learning Management System	Initiated program with Education Elements; has now switched to Junyo
Public revenue/pupil	\$7,095	Content Technology providers	Achieve 3000, iReady and Accelerated Reader for ELA; Dreambox and ST Math for Math
Student: Teacher	28:1 in classroom; 14:1 for small group instruction		

¹² The information for this case study is based in part on data from Innosight Institute’s KIPP LA, Empower Academy profile, located at <http://www.innosightinstitute.org/blended-learning-2/blprofiles-innosight/kipp-la/>. It is also draws from interviews and the school’s website.

Context and Overview

KIPP Empower's instructional program is built on the fierce commitment to putting every possible resource toward ensuring that every child reads at or above grade level including high quality instruction, parent empowerment, multiple reading interventions, and excellent attendance.



Blended-learning model

At KIPP Empower, blended learning occurs within the core academic classroom. In its third year, the school has eight classes, each serving 28 or 29 students. Each classroom is equipped with 15 computers. Throughout the day the teacher rotates students among the computers, small-group instruction, and individualized instruction. During teacher-led instruction, the group size is under 14 students per group for reading, math, writing, and science. The off line curriculum includes Singapore Math, Reading Mastery for phonics, Scholastic's Guided Reading Program, and Engineering is Elementary Curriculum from MIT. Students on the computers use Acheive3000, iReady, AcceleratedReader, DreamBox, ST Math, and other adaptive learning programs. KIPP Empower's leaders believe that this adaptive-technology approach, coupled with differentiated, individualized instruction from the classroom teacher using quality resources, will result in academic results equal to or greater than those of the traditional KIPP model.

KIPP Empower worked with Anthony Kim of Education Elements in year one to develop a learning platform that enabled the following: (1) single sign-on capability for students and teachers; (2) efficient administration of online learning; and (3) actionable reporting of online learning data that can be used by teachers to inform future individualization. The school switched to Junyo as they were "looking for a platform that had third party, verified data through independent assessments as well as a robust dashboard." Junyo is developing micro assessments aligned with the common core standards to ensure that students are reaching a level of mastery consistent with the school's standards, and not relying on a particular vendor's assessment of mastery.

Design and Implementation Success Factors

Success factors articulated by staff at KIPP Empower include leadership and very strong systems and routines put in place by the principal.

Financial Impact

Traditional KIPP LA elementary schools have student-to-teacher ratios of 20-to-1. Through its blended learning model, KIPP Empower is able to increase this ratio by eight or nine students and eliminate one classroom, resulting in additional revenue of approximately \$140,000 and reduced expenses of nearly \$100,000. The principal projects that by 2014, when the school reaches full capacity, it will operate entirely on state funding. KIPP Empower will be moving into its own facility in school year 2013-2014 and reports savings on building costs because there will be fewer classrooms.

Student Outcomes

KIPP Empower's academic results from the first year (2010-2011) are promising—96% of KIPP Empower students performed at or above the national average in reading and 92% in math on the national norm-referenced MAP test compared to 82% in reading and 48% in math on the same test for its sister KIPP LA school, KIPP Raíces Academy. These results catapulted KIPP Empower to the number one ranked elementary school in the KIPP network in its first year.

Impact on Teacher Roles

Eighty-eight percent of KIPP Empower teachers expressed satisfaction with the school, compared to 78% across the KIPP network, making KIPP Empower the number two school in the KIPP network for teacher satisfaction. In addition, parents expressed great satisfaction with the school: 96% of parents expressed satisfaction with the school, compared to 88% across the KIPP network.

KIPP Empower provides much of its own training to teachers, requiring extensive focus on classroom management as teachers work with many different student groups in a day and manage independent work as well. For this reason, KIPP Empower insists that teachers master and use the routines and structures developed by the school principal. Staff reports that teachers' ability to access and use data has greatly increased, and they anticipate that with the switch to Junyo's blended learning management system, teachers will have access to even more reliable data as students move into 2nd and 3rd grade.

Future Plans

KIPP Empower was the first KIPP school in the national KIPP network to pioneer blended learning and provide its students access to innovative technology practices in their formative years. KIPP Empower's goal is to prepare K-4 graders with the skills to thrive in a college-preparatory middle school environment. KIPP Empower does not plan to expand beyond its current sit and projected grade levels.

Profile: Lake Elmo Elementary¹³

Lake Elmo Elementary piloted a Flipped Classroom model from September 2011 to January 2012 with success and plans to implement blended learning in a larger capacity in the future, starting with 4th grade math classes. Students in fifth grade math Flipped Classrooms were asked to watch 10- to 15-minute chunks of instruction at home most weeknights, asked to complete comprehension questions via the Moodle learning management system, and then worked through practice problems or completed various activities when they returned to school the following day.

¹³ The information for this case study is based in part on data from Innosight Institute's Stillwater Public Schools profile, located at <http://www.innosightinstitute.org/blended-learning-2/blprofiles-usersubmissions/stillwater-area-public-schools/>. It is also draws from interviews and the school's website.

School Overview		Blended-Learning Implementation	
School type	District school	Model	Flipped-Classroom model
Headquarters	Stillwater, Minnesota	Key aspects	After school, students in grades 4-6 math classes watch asynchronous instruction videos online and complete a short quiz. At school they practice and apply their learning with a face-to-face teacher.
Focus	General		
Grades served/ Enrollment	K-6/ 718 students		
% Free Reduced Lunches	15.7%	Blended grades	4-6
Public revenue per pupil	\$5,174	Technology providers	Skyward for the SIS and Independent Gradebook; Moodle for the Independent LMS
Student: Teacher	18.3 to 1		

Context and Overview

Lake Elmo Elementary, located in Stillwater, Minnesota, serves grades K-6 in the Stillwater Area Public School District. The student population is six percent Black and 15.7 percent of the students are eligible for the free and reduced-priced lunch program. Total per-pupil expenditures across the district are \$5,174 which compares to an average of \$9,063 per pupil across the state. The average student-to-teacher ratio is 18.3-to-1. From September 2011 until January 2012, the district implemented a Flipped-Classroom pilot program with six 5th grade math teachers from five different elementary schools.

Blended-learning model

Lake Elmo Elementary is following the Flipped-Classroom model: students view teacher-created lecture videos after school and then return to class the next day for follow-up and problem solving activities with the help of their teachers (thus “flipping” the traditional model of content delivery in school and problem solving at home). Teachers produced videos explaining concepts traditionally taught in class. They used a variety of tools to produce the videos including ScreenFlow, a microphone, and a tablet. The videos were then posted on Moodle and to the district’s podcast feed so that students could access them from their home computers, tablets, or smart phones. After viewing the lecture most weeknights at home (with the ability to pause or rewind at any time), students complete a short quiz online through Moodle to demonstrate their understanding. Students who did not have Internet access at home are able to complete the short quizzes the following day at school. Teachers use this daily data to inform their plans for class.

When students enter the classroom, they are expected to have watched the video. If they have not, they are directed to an iPad or computer station to catch up. Teachers’ lesson plans vary according to style and student needs, but generally teachers spend anywhere from 2 to 10 minutes reviewing the concept in front of the whole class, depending on the students’ understanding as demonstrated on the quiz scores. After this quick review, students break out into groups to work on practice problems (what would be considered homework questions in a traditional classroom) or a variety of lesson activities. Teachers circle the classroom to help students individually or in small groups. If a student

completes her “homework” in-class before her peers and has demonstrated mastery of the concept(s), then she is free to move ahead at her own pace by watching the next lecture video in the series.

Design and Implementation Factors

Key success factors reported by Mike Dronen, District Coordinator of Educational Innovation and Technology, were: 1) a dedicated technology integration staff in place to organize, collaborate and be a resource for teachers; 2) technology tools such as a Moodle podcast producer, laptops for all teachers, wireless and Google apps; 3) time in the summer and stipends for teacher planning; 4) supportive and informed principals and other administrators; 5) professional learning networks (local/global) to share and reflect on the pilot; 6) a phased in approach, starting with a small group of teachers in a pilot; 7) training students/parents to see every problem as a solution to be had; 8) a capable technical team that fully supports instructional objectives. Obstacles encountered on the way included technology access, quality of some videos, and teacher learning curves for new tools.

Financial Impact

The program has proven to be almost cost neutral; only minimal funds for teacher training and some new equipment were required. However, if a school considering this approach does not have in place a technology integration position/staff member to work with teachers through the transition, this will be an added expense as it will be impossible to make a systemic change.

Student Outcomes

Students have been continually excited about the “flip” as the program has expanded. The Flipped Classrooms have proven to be effective in accelerating student learning: eight weeks into the pilot program the Flipped Classrooms were already one to two weeks ahead in the district’s pacing schedule.

Impact on Teacher Roles

To prepare for the pilot, participating teachers completed a four-day summer training to learn the basics of video production, techniques for effectively understanding student data, and strategies for restructuring class time. During the pilot and continuing through the school year, teachers have expressed enthusiasm for the Flipped-Classroom model. Teachers estimate that they previously spent 45 to 50 minutes of a 75-minute block lecturing to students; now that students view lesson content prior to coming to class, teachers can spend the majority of class time working closely with students conceptual understanding rather than lecturing, reporting that they struggle much less with encouraging their children to complete their homework. As the program has grown, increased specialization and coordination among teachers has evolved. Grade level teachers have made arrangements such that one teacher will make videos, a different teacher will create quizzes for understanding, another will refine additional learning materials, and yet another will assist in managing the Moodle pages.

Future Plans

In summer 2012, SAPS began a Flipped-Classroom model curriculum for one-third of its 4th-grade math classes, nearly all of its 5th grade math classes, and about one quarter of its 6th-grade math classes. The district also gave incoming 5th graders to the videos already created to prepare for the 2012-13 year. The district hopes to flip its 3rd grade math classes and add other subjects in the future. At the start of the 2012-12 school year, the Stillwater Flipped-Classroom model has expanded to 41 teachers impacting over 50 classrooms. In 2012-13, the district plans to partner with the University of Minnesota to conduct a rigorous academic study of its Flipped-Classroom model.

Profile: Mission Dolores Academy

In partnership with Seton Partners Phaedrus Initiative

Mission Dolores Academy is the merger of two under enrolled and financially struggling Catholic Schools, Mission Dolores School and Megan Furth Academy in San Francisco, both serving a significant number of low income students. The Phaedrus Initiative, part of Seton Education Partners, helped the new Mission Dolores Academy use education technology to substantially reduce its operating costs and improve the academic performance of its student, showing a way forward to many other financially struggling catholic schools.

School overview		Blended-Learning Implementation	
School type	Private school	Model	Station-Rotation model
Headquarters	San Francisco, California	Key aspects	Rotating approximately every 30 minutes between online instruction, small groups, and teacher instruction within a classroom.
Focus	Urban		
Grades served	K-8		
Enrollment	225 students		
% Free Reduced Lunches	40%	Blended grades	K-8
Public revenue/pupil	N/A	Technology providers	Compass Learning, Houghton Mifflin Harcourt's Science Fusion, Achieve 3000, and Powerspeak for Spanish; Education Elements
Student: Teacher	27: 1		

Context and Overview

Mission Dolores School and Megan Furth Academy merged to become Mission Dolores Academy in 2011, opening as a Catholic private school for grades K-8 with blended learning fully integrated into their classrooms with small group instruction and a rotational model. The change enabled the Catholic community to keep a Catholic school option for families in the mission district of San Francisco in the face of financial and enrollment issues by reducing and reallocating costs, enabling the school to offer current and future students greater financial support via tuition assistance and free uniforms.

Blended-learning model

Mission Dolores Academy employs a classroom Station-Rotation model, with students shifting every 30 minutes between computer-based instruction, small groups and teacher-led instruction at least half of the school day. Education Elements provides the learning management system that gives students a single user ID and sign-on and enables the schools to use multiple learning providers. According to Scott Hamilton, Seton Partners, "the advantage of using multiple content providers is flexibility in providers to match content to student individual learning needs and the ability to easily change products that are not producing results based on student achievement data."

Design and Implementation Success Factors

Scott Hamilton, Seton Partners, stresses the importance of leadership and teacher quality as important factors in implementation success. “There is a lot of power in technology, but if you do not have a leader who can lead or teachers who can teach, it won’t work.” He advises new operators to “select the blended-learning model that works for various age groups, rather than following their natural inclination to select one model for an entire school.” He found that the classroom Rotation model worked well for the younger children but would have them rotate more often, perhaps every 20 minutes. For the older students, a flex model involving 1-to-1 laptops might work better.

Financial Impact

The start-up costs for Mission Dolores Academy were approximately \$500,000 and included computers, wiring, furniture, and online content. Ongoing costs will be significantly less and will include depreciation of equipment and software licenses for content. The school experienced a significant reduction in per pupil operating costs based on increased enrollment and class size accompanied by a reduction in staff including teaching assistants in the lower grades and one teacher. Seton Partners projects that a savings of \$500,000 in the 2012-13 school year, due primarily to holding costs fairly constant and increasing enrollment and tuition revenue.

Student Outcomes

The implementation of blended learning has enabled overall school scores in reading and math to increase significantly over the 2011-2012 school year, with percent of students proficient in reading increasing from 43% to 49% and in math from 43% to 59%. Several 8th graders were accepted to Sacred Heart, considered the best catholic high school in San Francisco.

Impact on Teacher Roles

Teachers report being able to use data to drive instruction and being able to employ “completely differentiated instruction” in classrooms. Teachers can log in, see real-time student data and then use small groups or individual work for targeted intervention. One middle school teacher described the Station Rotation model as “having four different classes” in one room, acknowledging that a teacher’s role becomes one of facilitating the various learning modalities. Since the computer instruction covers much of the basic skill acquisition, he offered that the new system enabled him to come up with more challenging work involving critical thinking.

Future Plans

Seton Partners is launching another blended-learning catholic school, St. Therese, in Seattle in the fall of 2012. This school will also partner with Education Elements on this initiative. In addition, Seton Partners has issued a Request for Proposals (RFP) for catholic schools interested in converting to blended learning for the fall of 2013.

Profile: Rocketship Education¹⁴

Rocketship Education opened the nation’s first elementary blended school in 2007 using a lab rotation model. It currently has seven schools in its network and will open an additional four campuses in 2013, including one in Milwaukee, Rocketship’s first expansion city outside of California. Rocketship has extremely ambitious growth goals aiming to expand to 50 cities across the

¹⁴ The information for this case study is based in part on data from Innosight Institute’s Rocketship Education profile, located at <http://www.innosightinstitute.org/blended-learning-2/blprofiles-innosight/rocketship-education/>. It is also draws from interviews and the school’s website.

country by 2020. Rocketship operates completely on state funding and saves about \$500,000 per year; savings are deployed into higher teacher salaries, full-time Academic Dean and Assistant Principal positions, and paying for the hardware and software within its Learning Lab. Rocketship's Academic Performance Index is 100 points higher for low-income students than API scores for the same population for other districts in the region and the state.

School Overview		Blended-Learning Implementation	
School type	Charter school	Model	Lab-Rotation model
Headquarters	San Jose, California	Key aspects	Students learn 75 percent offline and 25 percent online. Online occurs in a separate Learning Lab during two-hour block periods, where students learn and practice basic skills in reading and math.
Focus	Urban		
Grades served/ Enrollment	K-5/3,700 students		
% Black or Hispanic	99%	Learning Management System	Created its own LMS, RISE, in partnership with Junyo
% Free and Reduced Lunch	90%		
% English Language Learners	75%	Technological providers	Curriculum Associates, Accelerated Reader, for reading; Dreambox Learning, ST Math, TenMarks, and Equatia for math.
Public revenue per pupil	\$5,960		
Student: Teacher	30:1		

Context and Overview

In 2006, John Danner, founder and former CEO of NetGravity, and Preston Smith, principal of the highest performing school in San Jose, CA, founded Rocketship Education, a national, nonprofit charter management organization that opened the nation's first elementary blended-learning school in 2007. It currently has seven schools in its network with three more set to open in 2013. Rocketship "strives to eliminate the achievement gap in our lifetime, so that no student's life is subject to the destiny of demographics" and aspires to serve one million low-income, urban elementary schools across the nation.



Blended-learning model

The Rocketship Public School Model involves 75 percent of classroom and 25 percent of online instruction. Each student attends one block of math/science, one block of Learning Lab, and one block of literacy/social studies each day. Learning Lab is made up of three separate components: Enrichment Center, Math Lab and Literacy Lab. Enrichment Center takes place outside and is primarily made up of physical education, but also includes occasional art and music lessons. Math Lab and Literacy Lab both take place within the physical Learning Lab, which is a multipurpose room that holds up to 130 computers and students at a time. Within Learning Lab, students work on individual learning needs and basic skills practice through the use of various online programs. Additionally, the most struggling students participate in small group tutoring within their Learning Lab block. Six Individualized Learning Specialists, rather than certified teachers, oversee the Learning Lab and play the role of instructional coaches and tutors. This model allows Rocketship to staff its schools with approximately 75% of the usual teachers and facility space that a typical elementary school requires.

Rocketship is committed to individualized instruction as the key driver of student achievement at every level. Individualized instruction comes in two forms at Rocketship: online instruction in the Learning Lab and a Response to Intervention (RTI) program within the Learning Lab that offers tutor-led, small group interventions for the lowest performing quartile of students. Rocketship continues to develop and improve the Rocketship Individualized Scheduling Engine (RISE) through a partnership with Junyo. RISE strives to be a truly integrated data system which provides universal, real-time data reporting for teachers, collects data on student performance from all instructional methods, individualizes and assigns content to students based on individualized skill gaps, and automatically manages accounts and student logins.

Design and Implementation Success Factors

The key success factors cited by Rocketship's CEO, John Danner, were "getting good at collecting student achievement data and developing a concise, individual learning plan. The majority of our results come from doing these two things really well." Through RISE, Rocketship has now been able to automate much of these individual learning plans—based on student data, the learning management system will automatically recommend the next step of developmentally appropriate activities for a student. John Danner also remarked that the digital content has to be really engaging for the blended-learning model to work.

Financial Impact

Rocketship schools operate more efficiently, saving about \$500,000 per school. This enables Rocketship to pay its teacher 10-20% more than teachers in surrounding school districts, pay for the hardware and software in Learning Lab, hire an Academic Dean and Assistant Principal at \$100,000, support its leadership and teacher development programs and hence fuel its growth. Rocketship schools operate solely and sustainably on traditional public school funding without the need for philanthropy. Rocketship builds its own facilities, and each building is 20,000 square feet, a savings of about 5,000 square feet per school.

Student Outcomes

The Rocketship Public School Model has allowed Rocketship schools to achieve 93 percent proficiency in math and 75 percent proficiency in English/language arts, which beat the state averages by 29 and 17 percentage points, respectively, and bested district averages by 26 and 14 percentage points, respectively. Rocketship Schools have an average API score for low-income

students of 863, compared to 773 for the region and 758 for the state – over a 100-point difference compared to the state.

Impact on Teacher Roles

Classroom teachers at Rocketship spend less time delivering basic skills instruction and more time teaching higher order thinking skills, often working with small groups of students or with students independently. Instructional delivery at Rocketship is diversified, with the addition of an Academic Dean and Assistant Principal, and Individualized Learning Specialists. Rocketship relies heavily on TFA's excellent teacher recruiting and screening: approximately one-third of its teachers are first or second year TFA corps members; close to three-fourths of their teacher/leaders are current corps members or TFA alums. Its teacher developing and emerging leadership programs are coherent and extensive, receiving support and the focus of full time staff from both Rocketship's Regional and National offices.

Future Plans

Rocketship is expanding to Milwaukee in 2013, has received eight charters in each Nashville, Memphis, New Orleans and Indianapolis, and has been approved for 20 new schools in the Bay area.¹⁵

III. Recommendation

The GHCF examined closely the four rotation models including their benefits, challenges, and examples described in this report. Based on this research and conversations with local leaders in education, the SEF Executive Committee members have decided to support Houston's first rotation model blended learning implementation at KIPP Courage, a new middle school that is part of the SKY Partnership¹⁶. Leaders of the SEF believe in the principal of this 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 whom the SEF will fund. Caprice Young, Vice President for Education at the Laura and John Arnold Foundation will serve as a thought partner on this project.

¹⁵ Current as of September 2012.

¹⁶ The SKY Partnership is a partnership between Spring Branch ISD, KIPP Academy and YES Prep Public Schools to collocate in the same middle school facility for the purposes of improving student achievement and cross-fertilizing innovative ideas.