Michael & Susan Dell
FOUNDATION

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Blended Learning in Practice:

Case Studies from Leading Schools

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featuring Rocketship Education

prepared by FSG

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Background

Rocketship Education

Blended Learning at Rocketship Discovery Prep

On a winter morning in San Jose, a class of first-graders pioneers a different vision for the future of education. As the class lines up along a hallway wall, their teacher waits for silence.

Once the students settle down, they file into the Learning Lab, a large rectangular room filled with computers, and each takes his or her place, donning a pair of headphones. Three other classes are already seated at computers, engaged in small group tutoring or reading independently while a fourth class is filing out into the hallway, preparing to move to their next class. One by one, students log in and are transported to a lesson in one of several math and literacy online curricula offered to Rocketship students. Students within the same class may work in different programs or on different lessons within the same program, depending on their needs. Individualized Learning Specialists (ILSes), part of Rocketship Discovery Prep's staff, roam the room, checking on progress and coaching students who appear to be struggling. Two other ILSes work intensively with small groups of students as part of Rocketship's Response to Intervention (RtI) program.

Through online practice, classroom instruction, and intensive supports, these students are experiencing an innovative model of how to individualize learning – a model designed to ensure that students get practice in exactly the areas in which they need help via technology and tutoring, while also allowing teachers to focus on teaching higher-order thinking skills. This model is the brainchild of a technology executive and a school principal, who together saw a way to apply the lessons learned from business model innovation in the technology sector to education, with the goal of closing the achievement gap in our lifetime.

Rocketship Education at a Glance (2011-12 academic year)

CMO

NAME *Rocketship Education*

FOUNDED *2006*

LOCATION *San Jose, CA*

NETWORK *5 schools serving 2,400 K-5 students in San Jose, CA. All schools in the Rocketship network use a blended learning model.*

DEMOGRAPHICS *85% Free/Reduced Lunch, 70% English Language Learners, 4% Special Education*

GROWTH PROJECTION *30 schools serving 15,000 students by 2015.*

CEO *John Danner*

MISSION *To close the achievement gap in our lifetimes by operating clusters of Rocketship schools in the 50 largest US regions by 2025.*

School Profiled

NAME *Rocketship Mateo Sheedy (RMS) and Rocketship Discovery Prep (RDP) (2 separate schools)*

FOUNDED *2007 (RMS); 2011 (RDP)*

LOCATION *San Jose, CA*

STRUCTURE *Each school opens as fully-enrolled K-3 program; expansion at 1 grade/year through 5th grade. In 2011-12, RMS had 507 K-5 students and RDP had 420 K-3 students.*

DEMOGRAPHICS *RMS: 90% Free/Reduced Lunch, 64% English Language Learners, 4% Special Education; RDP: 83% Free/Reduced Lunch, 72% English Language Learners, 6% Special Education*

PRINCIPAL *Maricela Guerrero (RMS), Joya Deutsch (RDP)*

BLENDED LEARNING *"Lab Rotation" model for Math and ELA*[1]

Building a Blended Learning Model

Rocketship Education was founded in 2006 by John Danner, a technology entrepreneur, and Preston Smith, a principal and Teach for America alumnus, to establish a national network of high-performing urban college preparatory elementary charter schools. Its mission is to eliminate the achievement gap in public education by opening K-5 elementary charter schools in high-need neighborhoods throughout the country. Previously, Danner was the founder and CEO of NetGravity, an Internet advertising software company. After he took NetGravity public and sold it to Doubleclick in 1999, Danner began a second career in education, first as a teacher in the Nashville public schools and then as the founding director of KIPP Academy Nashville, a charter middle school. Rocketship was founded to be what one might call a "second-generation" charter school network, designed to address the challenges and learn from the experience of pioneering networks like KIPP. Specifically, Danner and Smith set out to develop a model to address what they see as the two most fundamental barriers to scaling charter school networks – staffing and funding. Their twin goals were to leverage a limited pool of high-quality teachers and to have each school operate solely on district, state and federal tax revenues without the need for ongoing philanthropic support to cover operating expenses.

[1] The 2012 Innosight Institute report, Classifying K-12 Blended Learning, characterized different types of blended learning models; the "lab rotation" model involves students rotating "on a fixed schedule or at the teacher's discretion among locations on the brick-and-mortar campus. At least one of these spaces is a learning lab for predominantly online learning, while the additional classroom(s) house other learning modalities."

Rocketship's first school, Rocketship Mateo Sheedy Elementary School (RMS), opened in August 2007. In 2009, Rocketship received a $5M grant from Reed Hastings and the Charter School Growth Fund for the creation of six additional elementary schools in San Jose. In the 2012-13 school year, Rocketship will have seven schools open in San Jose, California, serving roughly 3,500 students.[2] Its second school, Rocketship Sí Se Puede Academy, opened in the fall of 2009, and a third school, Rocketship Los Suenos Academy, opened in the fall of 2010. Rocketship opened two additional San Jose schools, Mosaic and Discovery Prep, in the fall of 2011, with two more schools, Brilliant Minds and Alma Academies, following in the fall of 2012. The CMO intends for its network to expand to 30 schools by 2015. Because Rocketship's model is consistent across all its schools, this case study will draw largely from RMS, as it is the longest-established school, though some of the descriptions and quotations come from a site visit to Discovery Prep, a more recently founded school.

Rocketship schools have demonstrated impressive results on the California state assessments.[3] For the 2009-2010 school year, RMS earned an API score of 925 and Rocketship Sí Se Puede Academy earned an 886 in its first year of operation. In 2010-11 Rocketship had an aggregate API of 863 for its three schools compared to an average 803 in nearby districts and 808 for California.[4] Rocketship attributes its success to three core pillars of the Rocketship Public School Model: deep parental involvement in the school and in the community which can enable the community to transform the political system, develop great classroom and school leaders, and individualize instruction with tutors and technology.

Rocketship's Four Values

I. Respect
II. Responsibility
III. Persistence
IV. Empathy

Rocketship focuses on elementary school students based on the evidence that students must be set on a path toward college well before 6th grade.[5] They believe that, while the traditional school model can often adequately serve students performing at grade-level, low-income students, who are traditionally behind academically, need individualized instruction and targeted interventions if they are to catch up with their more affluent peers. Most of Rocketship's current students are English Language Learners from low income families who arrive at a Rocketship school from

[2] In the 2011-12 school year, Rocketship had five schools open in San Jose, California, serving roughly 2,400 students.

[3] SRI International is also currently engaged in an impact evaluation of Rocketship's blended learning model for the 2011-12 school year. The report, expected to be published in late 2012, will compare performance between Rocketship schools and a control group of similar schools.

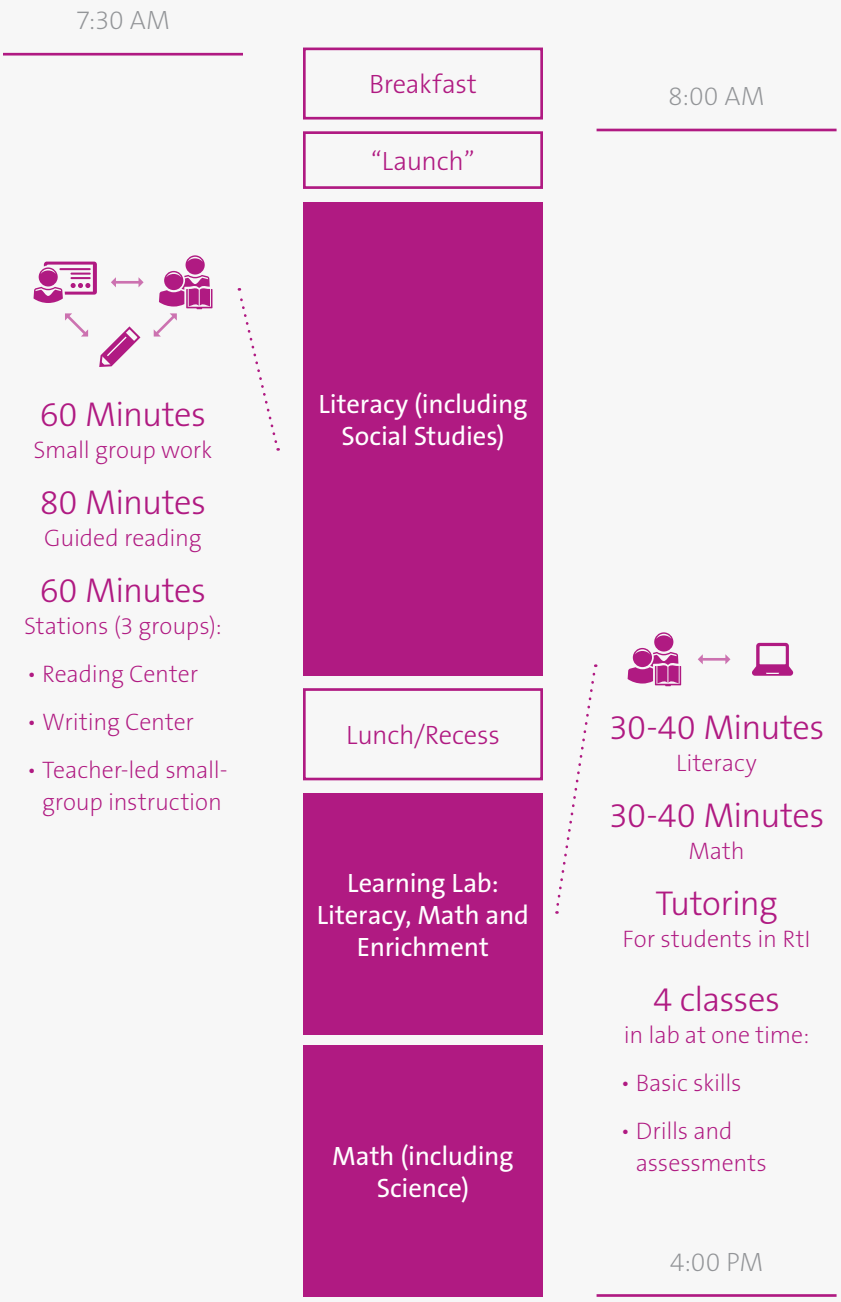
[4] Nearby district average of 803 is an average of the APIs for the elementary schools in Alum Rock Unified, San Jose Unified, and Franklin-McKinley. The California API is for grades 2-6 only.

[5] Snow, C., Burns, S., Griffin, P. (1998) Preventing Reading Difficulties in Young Children. National Research Council.

Fig. 1

Rotational Blended Learning Model at Rocketship

Rotations will be explained in detail in the "Instructional Model" of the case study



half a year to a year and a half behind their peers, as measured by the NWEA MAP and DRA assessments.[6] Rocketship's goal is to prepare these students to score at the "proficient" or "advanced" levels by the time they leave Rocketship, so they are prepared to succeed in middle and high school and to graduate from a four-year college.

Rocketship's day is designed to support this goal. In each grade, students form heterogeneously grouped classes, and may be placed into small 'same level' groups for classroom instruction. Students benefit from an extended, 8:00am-4:00pm school day with a block schedule consisting of two 100-minute blocks of classroom-based literacy instruction (which also includes instruction in social studies and the arts), one 100-minute block of classroom-based math instruction (which also includes instruction in science), and a 100-minute block of Learning Lab. Thirty to forty minutes of that block are spent in structured play which Rocketship calls the Enrichment Center. The remaining sixty to seventy minutes are split between math and literacy activities, which students undertake on the computer. As Preston Smith, Rocketship's co-founder explains,

[6] Rocketship is transitioning to STEP literacy assessment in 2012-13.

the Learning Lab features programs that "can tell within the first few questions if a child knows the material - that way they can move up - or if a child doesn't quite get the concept - they'll move down a little bit. The opportunity to individualize their instruction and then adapt in real time is something we can't do in our classrooms but you can do it with a computer.[7]" Also during this time, students who are placed into Tier II of Rocketship's Reponse to Intervention (RtI) model receive small group tutoring, rather than online instruction.

Rocketship believes that through individualized instruction and blended learning, it can enable students who enter in kindergarten to achieve accelerated growth and perform above grade level by the time they depart Rocketship. That clarity of focus gives a Rocketship school "the ability to have everyone working toward the same goal," as Joya Deutsch, Principal of Discovery Prep, describes it. Rocketship's Learning Lab, RtI model, differentiated staffing approach, and innovative financial structure all contribute to and enable individualized instruction. The subsequent sections of this case study examine the instructional, operational, and financial dimensions of Rocketship Education's blended model.

[7] Preston Smith's comment is based on a video linked from the Rocketship site: http://vimeo.com/30557533

Instructional Model

Rocketship Education

Instructional Model

Rocketship focuses on elementary school students based on research that shows that this age range presents the best opportunity for bringing students to grade level in literacy and math.

Instructional Quick Facts

MODEL *K-5 Lab Rotation model*

PEDAGOGICAL APPROACH *Small group instruction with a strong focus on literacy and reading*

INSTRUCTIONAL TIME *30-40 daily blended minutes for Literacy and 30-40 for Math; 200 daily classroom minutes for Literacy and Social Studies and 100 daily classroom minutes for Math and Science*

STUDENT TO ADULT RATIO *On average, RMS has 24 students: 1 teacher during live instruction, while RDP has 26 students: 1 teacher.*[8] *There are 5 ILSes to approximately 100 students in the Learning Lab.*[9]

INSTRUCTIONAL ROLES *Differentiated staffing model using Teachers and Individualized Learning Specialists supported by an Academic Dean and an Assistant Principal*

The model is designed with the expectation that students will arrive at Rocketship anywhere from half a year to one and a half years below grade level and strives to eliminate that gap by the end of second grade. As Rocketship schools seek to open fully enrolled in grades K-3, Rocketship schools also work with older students who may enter significantly below grade level. Overall, Rocketship endeavors to graduate its students at or above grade level, fulfilling the aspiration that "students graduate from fifth grade at Rocketship on a new trajectory."[10]

To achieve this goal, Rocketship seeks to provide individualized instruction in three ways: in the classroom, online and via small group tutoring for students in their school's Response to Intervention (RtI) program *(See Figure 2 for details)*. To determine how best to meet each student's needs, Rocketship relies on an extensive assessment system *(See Appendix 2 for details)*. At the beginning of the year, students are placed into heterogeneously-grouped homerooms which travel together to daily Literacy/Social Studies and Math/Science periods, as well as to Learning Lab. Rocketship teachers review summative assessment data from the previous year and the results of the norm-referenced NWEA MAP in math and reading to understand their classes'

[8] Because teachers work with more than 1 class per day, to arrive at the average student to adult ratio for live instruction, we divide the total enrollment by the total number of classes.

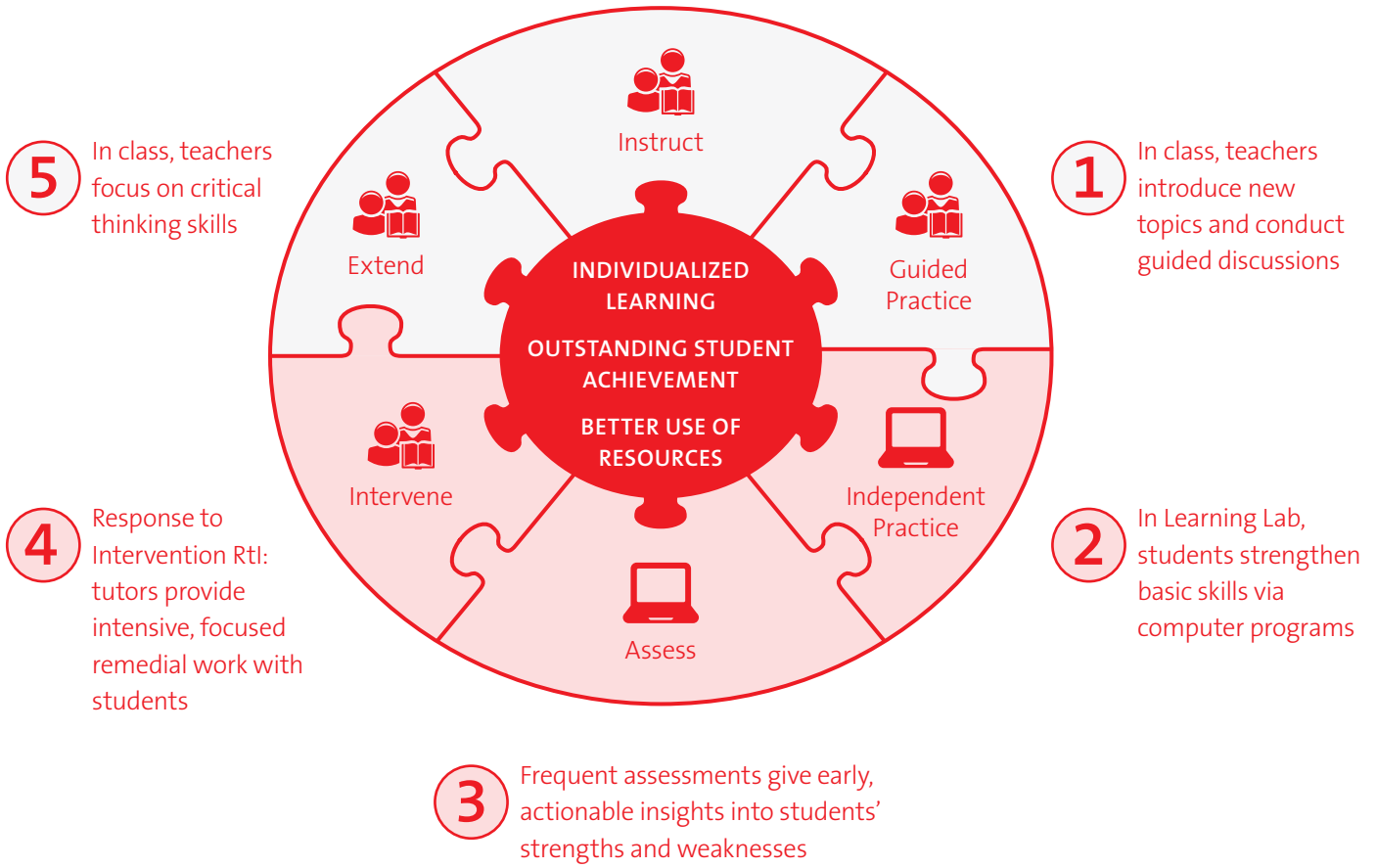
[9] At any given time there are four classes in the Learning Lab and so the actual ratio of ILSes to students will vary based on which classes are in the room.

[10] Rocketship Website: http://www.rsed.org/individualization/Student-Outcomes.cfm

current achievement levels. For more granular information on reading skills, students take the DRA assessment, and for math students take an internally developed math benchmark.[11] Teachers use data from these assessments to understand the baseline achievement of their students as well as specific areas of strength and weakness. Based on this data, teachers may place students into small, homogeneously leveled groups for classroom instruction and may also recommend students for the school's Response to Intervention program. To assess whether students are on track to make targeted gains during the year the NWEA MAP assessment is administered in September, January, and June. Every eight weeks, Rocketship also administers assessments in reading and math.

Fig. 2

Rocketship Blended Learning Model and Individualized Instruction



[11] In 2012-13, Rocketship is transitioning to STEP (Strategic Teaching and Evaluation of Progress) from DRA (Developmental Reading Assessment) and to the Curriculum Associates benchmark from an internally developed math benchmark.

Instructional Delivery:

Extensive Use of Data Facilitates Individualization During Live Instruction

In most elementary schools teachers teach all or most subjects to a single class; in Rocketship schools, teachers focus on instruction of students in a few core subjects, more like secondary school teachers. This means that rather than remaining in one classroom with one teacher, as in the traditional elementary school model, Rocketeers, as the students are known, travel from classroom to classroom throughout the day and it is the teachers who remain in the same classroom. As John Danner, Rocketship's co-founder explains it, having teachers focus on specific subjects means that "...they start to get really good at teaching literacy and really good at teaching math because they are doing it all day long with multiple kids, [and] they start to see the same patterns."[12] Students attend a daily double block of literacy and social studies instruction and a single 100-minute period of math and science instruction. Rocketship schools work hard to ensure that transitions from one class to another are quiet, orderly and quick, requiring students to practice them extensively early in the school year.

Classroom instruction is individualized through 'same level' grouping within the classroom, the preparation of different lessons for each group, and additional small group time for students who are struggling. The standard Rocketship instructional approach is for teachers to plan their lessons for at least three groups of students, who are focusing on different daily goals appropriate for their current level of mastery as they strive to meet the same overall grade-level standards. Sometimes the teacher delivers instruction to the entire class at once and at other points, the class breaks up into three groups, with two groups working on activities at stations and one receiving teacher-led instruction. Student groupings are adjusted at least every eight weeks using the results of bi-monthly assessments.

Approach to Small Group Instruction

Small group instruction is one method used by Rocketship teachers to ensure that all students are working at their current level of mastery in pursuit of the same overall classroom goal. For a first grade lesson on two-digit subtraction, the teacher may choose to introduce the concept to the whole class at once, and then break students into deliberate, pre-determined groups for time at strategically chosen learning centers. Several students may travel to one table where the teacher meets them to review a lesson on simple subtraction with them that they did not master last week. Another group of students, ready for a preview of next week's topic, may move to a cluster of tables by the classroom cabinets for an experiential lesson on measurement. This group may be given the task of measuring objects around the classroom - the desk, the bookshelf, the cabinets, even their pencils – and then recording their findings with the correct unit of measurement, checking each others' work as they go. Across the room, yet another group of students may be given time to practice subtraction and addition by "fishing" for math

[12] Comments from John Danner are based on a video linked from the Rocketship site: http://vimeo.com/30557533

problems. To set the stage, the teacher transforms an area of the classroom carpet into a pond, and students pick up a paper fish with a two digit subtraction or addition problem on it. After they've "fished" for the problem, they solve it together, and throw the fish back so the next student can take her turn. This approach to instruction plays out in different ways in classrooms across the Rocketship network, but the goal is the same: to enable students at Rocketship to spend time in the classroom actively learning at their own developmental level.

To facilitate this adjustment, and to inform the overall instructional approach taken in each classroom, teachers, Individualized Learning Specialists and school leaders review and discuss these bi-monthly assessments during Data Day. This day-long meeting is used for early identification of at-risk and high-performing students. Teachers present their updated assessment walls (a method of visually mapping the progress of each student in the class), and confer with the Academic Dean, the Assistant Principal[13] and the Principal to identify trends, strengths and concerns. Teachers also use the assessment walls to share challenges and successes and collaborate in planning next steps for individual students and classes. Finally, teachers complete their Data Analysis Form which requires each teacher to track the student data from their interim assessments, identify positive trends and challenges, and then identify specific 'bellwether' students and specific 'focus' students. Bellwether students are chosen to reflect different groups of students in the classroom, and their progress will act as an indicator of whether specific approaches or interventions created for similar students in the class are having the desired effect. The teacher may assess these students more frequently in order to understand how the group of students represented by the bellwether student may be progressing. Teachers usually identify 3-4 bellwether students in each class during each Data Day. Focus students are those students who are struggling the most and may be in need of specific additional interventions. For these students, the teacher plans additional support and differentiation that can help accelerate their growth.

The Individualized Learning Specialists look at school-wide and classroom data alongside teachers and also review the growth data of students who were placed in RtI in previous cycles. Students may be moved from one RtI tier to another based on the results of this analysis. In addition to the bi-monthly Data Day, staff has an early dismissal day once a week. Subject area teachers use this time (each Friday from 2 to 5pm) to compare student data, discuss students, and discuss instructional strategies, interventions and enrichment.

Role of Online Instruction:

Technology provides a complementary, and customized, learning experience for each student in the Learning Lab

The Learning Lab is a dedicated multi-purpose room[14] that can accommodate up to four[15] classes of students at once and is staffed by a team of five

[13] These roles are explained more fully in the Operational Model section.

[14] Rocketship constructs its own new school facility for each school that it opens.

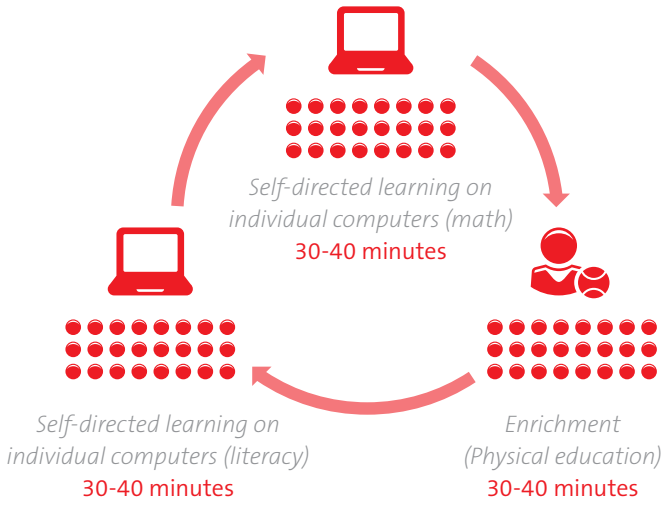
[15] Beginning in 2012-13, Learning Labs will serve up to 130 students at any given time and be staffed by 6 ILSes.

Individualized Learning Specialists (ILSes). Classes of students cycle in and out of the Learning Lab over the course of the day, depending on their block schedule. The schedule is staggered so that classes are coming and going from the Learning Lab in 40-minute intervals. These transitions are well-rehearsed and carefully monitored by staff with each incoming class lining up along the wall near the door to the Learning Lab and entering when the students are quiet and in a straight line.

During each student's 100 minute Learning Lab block, he or she rotates between online instruction, the Enrichment Center (e.g. physical education) and time with small group tutors, for those students who are selected for the Response to Intervention (RtI) program *(See next section for details)*. Figure 3 outlines the flow of student time in the Learning Lab, and demonstrates how the room's physical layout supports the various activities students undertake while in the Learning Lab.

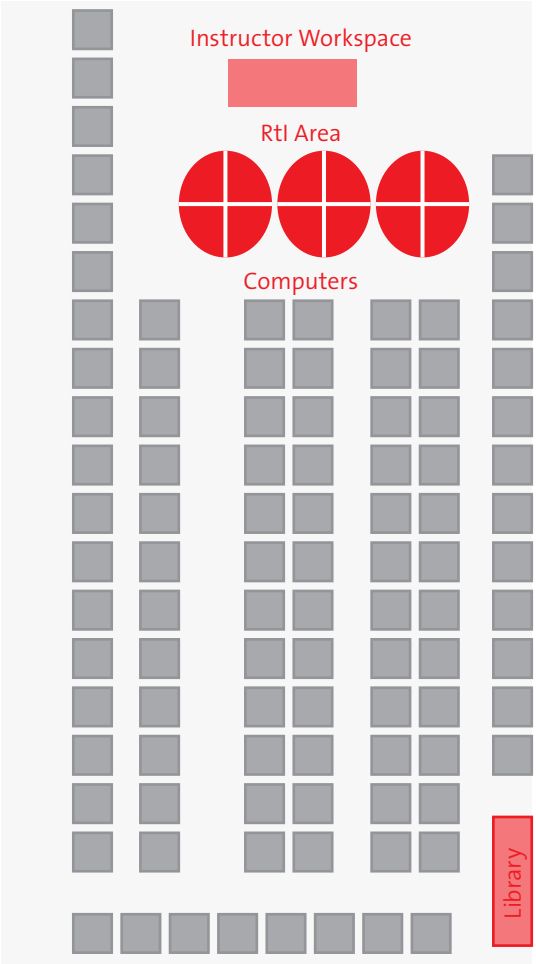
Fig. 3

Blended Learning Rotation



In Rocketship's 100 minute Learning Lab block, multiple classes rotate through online instruction and enrichment. Students in the RtI program will go to small group tutoring in the RtI area instead of online instruction.

Learning Lab Setup, Rocketship Discovery Prep



In the Learning Lab each student[16] has a computer and accesses web-based online curricula focused on building skills in math and literacy. *(See Appendix 2 for a complete list of digital content).* When students enter the lab, they sit down in front of the computer assigned to them, put on their headphones, and log in. Students progress through a single sign-on process *(See Figure 4)* in which they pick their school, class, name and then an icon which serves as their password. The system then calls up the program to which they are assigned and serves up the first lesson. The extent to which a student's online experience parallels instruction received in the classroom varies. Some programs are entirely adaptive, which means that the program guides the student based on its own scope and sequence and definition of mastery. Others offer more 'assignability', which affords Rocketship somewhat greater control over the particular lessons to which students are assigned at any given time. In these cases, Rocketship works with the vendor to map individual lessons within the online program to units of study in the classroom. The CMO then shares the year's expected pace of classroom instruction so that the online programs cue up lessons roughly related to the goals of the unit teachers are covering at that time. Because students work at their own pace during the online lessons, Rocketship's aspiration is that the online programs will create individualized pathways for each student to support them in mastering the same standards to which they are exposed in the classroom. While some progress was made during the 2011-12 school year, work will continue in the year ahead with the goal of creating an ever more consistent alignment of online and teacher-led instruction over time.

Students will spend about two-thirds of their time in Learning Lab working with online math and literacy instruction. For additional literacy practice, students may spend a portion of their time on independent reading. The Lab contains a leveled reading library, and students may choose a book appropriate for them and complete Renaissance Learning's *Accelerated Reader* reading comprehension quizzes to demonstrate their understanding of what they have read. No matter what they are working on, the goal of time spent in the Learning Lab is for students to have the chance to work on those skills and concepts most applicable to their particular ability level.

Supporting Special Populations:

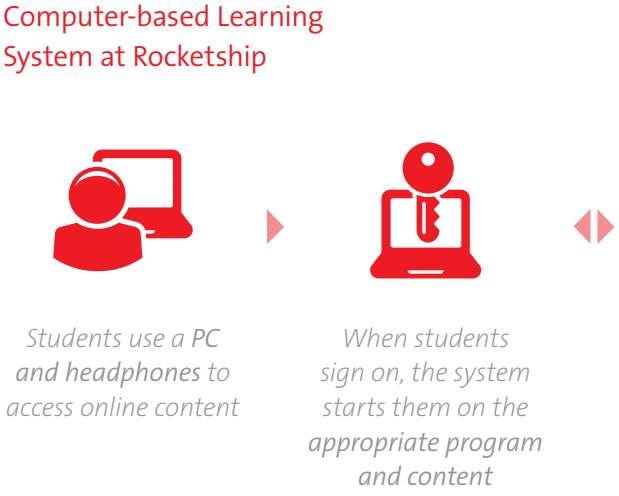
Small group tutoring during Learning Lab provides struggling students with additional support

For struggling students – which may be 20-25% of Rocketeers at any given time - Rocketship uses a Response to Intervention (RtI) model, a process for supporting high needs students that uses frequent assessments and early warning signs to identify when students start falling behind in order to provide appropriate supports. Students are placed into RtI and assigned a 'tier', based on teacher analysis of assessment results. While Tier I includes

[16] As noted in the section on Supporting Special Populations, students involved in RtI spend time with their small group tutors instead of online. These students are encouraged to make up their online instruction time either before or after school, although it is not a requirement.

Fig. 4

Computer-based Learning System at Rocketship



all students making adequate progress, Tiers II and III denote those students in need of additional assistance. Tier II students receive moderate supports either in the classroom, which may include assignment to a specific guided reading group or math center during classroom instruction and/or outside the classroom, which may include time with an ILS in small group tutoring during Learning Lab. Tier III students receive intensive supports outside the classroom. If these interventions fail to enable a student to make adequate progress, the student is referred to the special education (SPED) team. The bi-monthly Data Days (described in the Operations section) provide an opportunity to assess students' progress and move them from one tier to another.

Innovative technology supports critical instructional decisions

Once Tier II students are assigned to small group tutoring during Learning Lab, technology works behind the scenes to ensure the optimal use of their time with the ILSes. The RISE online system recommends student groupings based on the most recent literacy and math benchmark data, which is updated every eight weeks. Assistant Principals, who manage the teams of ILSes at each school, may then view these recommended student groupings and modify them based on additional assessment data which is available as they 'hover' over each student's record online. For example, an Assistant Principal (AP) may discover that while all students

in a recommended group share a reading level, some of them struggle more with decoding and others with reading comprehension. The AP may then decide to modify the groupings so that the students are grouped by the particular skill (e.g. decoding) that they need to work on rather than by reading level. Once the groups are set, RISE notifies teachers and ILSes of the new groups, prompting teachers to log in to add any additional qualitative comments to each student's Individual Learning Plan (ILP). When the ILSes log into their portal, they will then see the groups of students assigned to them, detailed information on each student via their ILP, and the curriculum recommended for use with each group. As the ILSes prepare to work with students during the eight week cycle from this largely scripted curriculum, they may reach out directly to teachers to gain additional insights on how best to meet their students' needs. Although small group tutoring is delivered in person and informed by personal interactions among the Rocketship staff, technology supports the process by ensuring that the decisions made along the way are based on the latest data available for each student.

Role of the Instructors:

Teacher specialization and differentiated staff model allow staff to build expertise quickly and recognize issues sooner

While in traditional elementary schools, one teacher typically handles all subjects for a single classroom of students, the Rocketship Public School Model is built on the belief that instruction is most effective when teachers are subject-matter specialists.

Literacy instruction is integrated with social studies instruction and math instruction is integrated with science instruction. All of Rocketship's teachers have multiple subject credentials yet teach fewer subjects with the potential to improve their instructional practice more quickly. As Julie Kowal and Dana Brinson note in their report "Beyond Classroom Walls: Developing Innovative Work Roles for Teachers", "teachers who work in literacy and social studies, for example, teach their lessons to two groups of students each day, doubling their exposure to those topics and allowing teachers much more intensive practice each year. Teachers in the math and science content area present their lessons four times each day, quadrupling their exposure and practice in the first year. Teachers—especially those new to the profession—improve their craft and their subject matter knowledge much more quickly as a result of this extra exposure.[17]"

Individualized Learning Specialists (ILSes) play a critical role as well in the Rocketship model. 5 ILSes, who are full-time, non-credentialed, hourly instructional staff, manage each of Rocketship's Learning Labs. The ILSes supervise up to 4 classes at a time, providing support and 1-on-1 coaching for students during online learning based on their own observations as well as student productivity data from the last few days. In addition, ILSes bear primary responsibility for delivering small group tutoring to Tier II students as part of Rocketship's RtI program.

[17] Kowal, J. and Brinson, D., "Beyond Classroom Walls: Developing Innovative Work Roles for Teachers," Center for American Progress, April 2011, p.8

Operational Model

Rocketship Education

Operational Model

Rocketship has developed an approach to individualizing instruction that uses fewer teachers and classrooms than the traditional classroom model. Time in the Learning Lab enables this instructional approach, but there are a number of other elements that are also important.

These include Rocketship's differentiated staffing structure, extensive professional development and coaching, a unique approach to developing school facilities and a cloud-based IT infrastructure. Rocketship's approach to, and experience with, managing the challenges of data integration is also described here.

Human Capital:

Differentiated staffing model enables greater specialization to meet student needs

A critical component of the Rocketship Public School Model is its differentiated staffing approach. There are two distinct staff roles at a Rocketship school: teachers and Individualized Learning Specialists (ILSes). Teachers are certificated and specialize in either math and science or literacy and social studies. Rocketship's teaching staff is composed mostly of teachers early in their careers with less than five years of experience. Of the 16 classroom teachers on staff in each fully enrolled school, Rocketship aims to recruit four incoming Teach

Fig. 5

Differentiated Staffing Model

The FTE count for each position reflect a fully enrolled Rocketship school.

Teacher (16 FTE)

- *Certified teacher*
- *Specialized in either Literacy/Social Studies or Math/Science*
- *Leads full-class or small-group instruction*
- *Can progress on Rocketship career path*

Individualized Learning Specialist (5 FTE)

- *Non-certified, hourly, full-time staff*
- *Provides support and coaching for online learning and delivers small-group tutoring intervention for students in RtI*
- *Reports to Assistant Principal*

For America (TFA) corps members per school each year. This means that Rocketship expects 50% of an established school's classroom teachers to be current TFA corps members. Other teachers are TFA alumni or recruits from regional school districts.

The Learning Lab is staffed by five ILSes, who are non-certificated, full-time, non-exempt, hourly instructional staff. The ILSes play a critical role in Rocketship's instructional model, as they oversee the culture and effectiveness of the daily Learning Lab operation, serve as computer-based learning coaches and provide Tier II RtI instruction directly to students in small groups. In addition to their responsibilities in the lab, ILSes begin their day with the Rocketship students at Launch, the official beginning of the Rocketship day. Launch is a 15 minute all-school session in which Rocketship staff takes care of daily business such as announcements and may also lead the Rocketeers in a song or other activity to focus them on the school's core values. Although not required to do so, some ILSes may take on the additional task of supervising arrival and/or dismissal, which affords them the opportunity to interact directly with students' families.

Rocketship's human capital structure and use of online learning contribute to efficiencies in its financial model *(see Financial Model for details)* which allow the CMO to make what it believes to be critical investments in its people. Each school has a full-time Academic Dean, in addition to an Assistant Principal. Veteran Rocketship teachers receive a base salary roughly 10% higher than comparably experienced teachers in neighboring districts, and all teachers and school leaders are eligible for performance-based bonuses. The Academic Dean and Assistant Principal positions are also part of Rocketship's Leadership Development Program, which provides a career ladder for teachers to grow into roles as Academic Deans, Assistant Principals, and Principals. Due to Rocketship's plans for rapid growth and expansion, they work deliberately to develop a pipeline of exceptional school leaders.

Each member of a school's three-person leadership team plays a very specific role. The Principal is the school leader and is responsible for attaining the school's student achievement goals, instilling the Rocketship culture in students, teachers and parents, developing other leaders and coaching teachers. The Assistant Principal (AP) manages the Learning Lab and all of the hourly staff, including Individualized Learning Specialists and Enrichment Center coordinators, and is responsible for key components of school culture including arrival and dismissal, transitions, lunch and recess. The AP also directly coaches a small number of classroom teachers. The Academic Dean is focused full-time on implementing Rocketship's academic systems and on mentoring teachers to improve their effectiveness. The Academic Dean is responsible for teacher coaching and professional development.

Professional Development:

Robust coaching and collaboration provides support to new teaching staff

Rocketship's early-career teaching staff requires strong supports to achieve the goals that Rocketship has articulated for itself. This support comes in a number of forms, including ongoing coaching by the Academic Dean and other school leaders, summer professional development before the school year commences, and ongoing school-based and network-wide professional development during the school year, including weekly, bi-monthly and annual meetings as well as subject matter professional development based on research and best practices. Over the course of a school year, this adds up to almost three weeks of dedicated staff professional development time. Data analysis and individualized learning are critical parts of teacher professional

Fig. 6

Rocketship's Approach to Professional Development

Rocketship Professional Development

WEEKLY	POST-ASSESSMENT "DATA DAYS"
Every Friday, Rocketship dismisses its students at 2:00 pm, and the full teaching staff meets for three hours of professional development. The Individualized Learning Specialists participate for two hours of this time. The Academic Dean plans and facilitates these meetings, which cover topics ranging from reflection on student data to improving classroom management strategies to planning the next Science unit.	Every eight weeks, after Rocketship students take their interim assessments, the schools have a full day of professional development focused on the analysis of interim assessment data. Teachers review student data and plan for the next cycle in multiple ways including using RISE, an online system which tracks individual student and class level results; the Assessment Wall, which visually charts student and group grade level performance; and the Data Analysis Form, which allows teachers to dig deeper into the causes of specific students' results and plan out solutions. Classroom groupings for guided reading are also modified during these meetings.

development, as detailed in Figure 6.

Facilities:

New, purpose-built school buildings facilitate lab rotation blended learning approach

Rocketship's innovative approach to facilities is guided by the idea that learning is best served when students are in a new building that meets their needs from the first day the school is open. As Rocketship Vice President of Treasury Rich Billings observes, "We don't want to have our schools open in a temporary incubation site, as we think it has the potential to send a message to students about the value of their education. We think underserved students deserve to be educated in buildings that they and their community can be proud of; brand new buildings upon opening, which provide a different kind of signaling effect." Rocketship's affiliate Launchpad Development Company acquires the land and builds each school. Each school then pays Launchpad an annual rent payment that currently represents 16% of each school's revenues, on average. This approach ensures that each school has the large multi-purpose room that is required for the Leaning Lab and gives Rocketship control over many other aspects of the building infrastructure that are critical to blended learning, such as electrical and information technology, and the Rocketship culture, such as an outdoor area for lunch, physical education and recess.

Role of the CMO:

The CMO manages most business operations and develops systems that are implemented at the school level

As a national Charter Management Organization, Rocketship will operate seven elementary schools in San Jose in 2012-13 with a staff of about 38. During the development phase of a school, the CMO creates the charter document and handles the charter application process. As discussed above, Launchpad, an affiliate of the CMO, manages the task of securing adequate and affordable facilities.

Once a school is launched, the Rocketship National Office provides ongoing assistance in the following areas:[18]

- Training and mentoring for the Principal, Assistant Principal, and Academic Dean
- Operational training and support for the school Office Manager
- Support for real estate, finance, IT, Special Education, compliance, and legal issues
- Research and development around the instructional model
- Systematic coaching of teachers and school leaders
- Support for parent empowerment

[18] In 2012-13 a formal regional structure, the Regional Support Office, is in place and will provide some of these supports.

Rocketship's National Office plays a large role in the selection and development of curricula. The Learning Lab curriculum is selected and supported by the Individualization Team at the national level. Decisions about assessments are also made at the national level. The National Office also provides each school with a set of critical systems and trains school staff on how to use them. These systems include reporting and compliance, budgeting and financial management, operations management, teacher recruiting, and teacher professional development, among others. To sustain its work, the CMO charges each school a fee of 15% of revenues.

As Rocketship grows, the role of the CMO is evolving. According to Carolyn Davies, Rocketship's Director of Operations, "When I first joined, we were thinking of taking everything beside instruction off the schools' plates. But that's not efficient. There should be a balance of operations on the ground and at the CMO level." With planned expansion to other regions, Rocketship is working to build a regional layer of operations between the national office and the schools. The schools will, as now, maintain a minimum level of operations functions, the Regional Support Office will provide most of the on-the-ground support that the National Office currently provides and the National Office will focus on systems design and quality control and assurance to ensure that schools are financially sound, legally compliant and academically outstanding.

Technology:

Cloud infrastructure requires little in the way of in-building IT support

Rocketship has opted to locate all of its online learning programs in the cloud, enabling it to operate with less IT infrastructure in each school building. Servers are still required to house data from certain student information systems (e.g., meals data), but all of the online curricula is web-based. Rocketship made a decision early on to use cloud-based services whenever they were available to minimize both infrastructure and staff costs. IT staff consists of one part-time, hourly IT support person for each school (a local college student who works about 10 hours a week). The upfront investment required to set up a Learning Lab is in the $70,000 range, including approximately $35,000 for PCs, $20,000 for a leveled library, and $15,000 for furniture.

Data Integration:

Data portability from Learning Lab to classroom is a challenge

Rocketship collects very detailed data about each student's academic progress from two main sources: its system of classroom assessments, and online programs in use in the Learning Lab. The classroom data include formative and summative assessments, quizzes and benchmarks, while the available online learning data varies by program.

The classroom assessment data is the focus of the professional development activities noted earlier, and is the main source of information for determining placements into and out of the RtI program and for creating small groups in the classroom.

Creating a relevant and easily accessible flow of online data that may be routinely used in making instructional decisions is more difficult. This is due in part to a lack of standards alignment across programs, and in part to the lack of commonly agreed upon methods for exchanging data. Online learning providers have also not had systems in place to report out some important usage data, like time spent on standards. Finally, there is no common definition of mastery across online programs. This means, for example, that when one program reports that a student has mastered fractions, this conclusion may not be shared by other online programs or by Rocketship's own system of classroom assessments. Taken together, these issues mean that it has been difficult for Rocketship teachers to access the sort of consistent and reliable data on student progress towards the mastery of standards that they would use to directly drive classroom instruction. Instead, the data that teachers currently access is most useful for showing which students are on task, which can be helpful in motivating students and managing student behavior.

In addition, the data streams from the classroom and online programs are not automatically integrated, requiring a manual data entry process and collaborative conversations between teachers and Individualized Learning Specialists to find the connections at the student level. As Kate Coxon, Director of the Individualization team, notes, "The big challenge is making sure that the data coming from multiple sources is aligned and easy to access: not all programs report student mastery in the same way and our ILSs, teachers, and school leaders are eager for tools that make it easy to combine data from multiple sources in order to use it to plan for instruction." The net effect is that instruction in the classroom and in the Learning Lab operates largely independently from one another. According to Discovery Prep principal Joya Deutsch, "The Learning Lab data feels like an intrinsically useful but still separate track from the classroom instruction. It reinforces skills and provides acceleration for the top and bottom quintiles."

Rocketship believes that solving this challenge and creating a tight integration between the classroom and Learning Lab is essential for maximizing the potential of its blended learning model. Thus, Rocketship began work in 2011-12 to create a technical infrastructure that could truly unify the classroom and the Learning Lab and help demonstrate the importance of technical integration for effective blended learning models. The team initially determined that custom development with an external vendor, rather than the purchase of an existing product, would be the most effective means to achieve this goal and so worked to build the Rocketship Individualized

Scheduling Engine (RISE). RISE was designed to work with the Blended Learning Infrastructure (BLI) developed by the Gates Foundation, allowing the addition of a single sign on (SSO) for students, as well as the automation of account provisioning and creation. This eliminated two historical logistic hurdles of managing student logins and manually enrolling and editing student accounts.

Key pieces of functionality for the 2011-12 school year included five main elements:

- a student portal, to allow students to sign into each of their online learning programs
- an assessment/assignment engine, to gather important data for student placement within programs
- a teacher/leader portal, to display classroom assessment data
- a small group tutor scheduling engine, which proposes small groups for tutoring based on students' assessment results
- an ILS portal, to display academic data and curricula used for tutoring lessons.

Even with the improvements made to the RISE technical infrastructure throughout 2011-12, Rocketship feels that data integration and scheduling capabilities are still far from the their ultimate vision. Going forward, RISE's role will be less prominent, as Rocketship enters into a partnership with Junyo, an external provider which will provide the technical infrastructure and data integration between Rocketship's various systems and online programs.

Financial Model

Rocketship Education

Financial Model

Rocketship schools are sustainable on public revenues in the first year of operation.

Rocketship built its model with an eye towards academic achievement and rapid expansion. In order to meet these twin goals, Rocketship creates schools that enable individualized learning, deliver strong student outcomes[19] and are sustainable without philanthropic dollars from their first year of operation in California, the state with the fourth-lowest per-student funding in the nation.[20] One critical enabler of the model from a financial perspective is the Learning Lab, which allows up to students from up to four classes to be supported by non-credentialed staff for the 100 minute period each day. Rocketship can therefore reduce its credentialed teaching staff from 21 to 16 per school and build each school with five fewer classrooms than it would otherwise require.

Financial Impact of Blended Learning
per pupil

FINANCIAL BENEFIT

+ $778 *Reduction in size of teaching staff by 5 FTEs*
+ $616 *Reduction in average teacher salary due to tenure mix*
+ $165 *Reduction in number of classrooms from 21 to 16*

ADDED COST

- $241 *Teacher salary premium*
- $169 *Academic Dean (salary and benefits)*
- $299 *Individualized Learning Specialists*
- $100 *Online learning and other software*

POTENTIAL REINVESTMENT

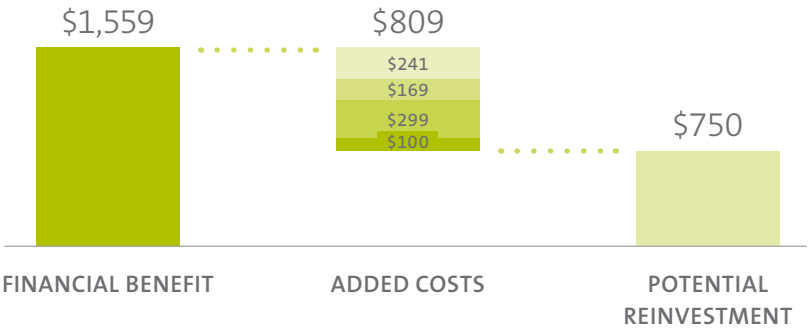
= $750 *Per pupil saving 2011-12*

Does not include upfront investments

Fig. 6

Upfront Investments
(Year 0)

2011 – 12 Ongoing Financial Benefit and Added Costs
(per pupil, based on figures and projected student enrollment from an hypothetical, fully enrolled school in its third year of operation.)



[19] SRI International is currently engaged in an impact evaluation of Rocketship's blended learning model for the 2011-12 school year. The report is expected to be published in late 2012.

[20] *Quality Counts 2012*, Education Week, January 2012

Rocketship reallocates the efficiencies gained from the Rocketship Public School Model into attracting and retaining talented staff and individualizing instruction in the following ways:

- higher salaries and performance bonuses for the teaching staff
- support systems for teachers, including an Academic Dean, Assistant Principal, and professional development
- an extensive Response to Intervention program
- Individualized Learning Specialists
- digital content and online curricula
- brand new facilities

Figure 6 illustrates Rocketship's financial model using figures and projected student enrollment from an hypothetical, fully enrolled school in its third year of operation.[21]

Upfront Investments in Blended Learning

As all Rocketship schools open on its blended learning model, it is difficult to separate the upfront investments for blended learning from those required to open the school. Perhaps the costs most unique to the blended model are those required to set up the Learning Lab. Each school's lab requires an investment of $70,000, including approximately $35,000 for PCs, $20,000 for a leveled library, and $15,000 for furniture. Since each school opened to date has been new construction, the facility can be designed to the exact needs of the Rocketship model (e.g., with a multi-purpose room of the appropriate size to house the Learning Lab, and with the necessary electrical and IT systems), so there are no additional costs to update facilities to accommodate blended learning. This would potentially be a significant source of upfront costs for schools that are implementing a similar model in existing facilities. Additional pre-opening expenses include fees to the Rocketship National and Regional offices.

Ongoing Additional Costs due to Blended Learning

Beyond the upfront investments required to implement a blended learning model, Rocketship invests heavily in teacher and staff compensation and bonuses, in teacher support in the form of an Academic Dean and ongoing professional development, and in individualization, which includes online content as well as additional staff (Individualized Learning Specialists). Rocketship seeks to compensate its veteran teachers at an approximately 10% premium relative to neighboring

[21] A hypothetical school's financial structure is used to here to illustrate the Rocketship model. As schools have the financial flexibility to make allocations between budget categories to map to their annual plans, any one school will vary from this model. With respect to RMS specifically, the school is smaller than the model K-5 school due to capacity constraints at the facility, and has access to revenue streams unique to its particular situation. Therefore, using its financials here would not give a representative picture of Rocketship overall. The projected student enrollment for a Year 3, fully enrolled school in 2011-12 is also used here, which is 546 students. For purposes of comparison, RMS' enrollment last year was 507 students and Rocketship Si Se Puede (RSSP), the other K-5, fully enrolled school, had 558 students.

school districts[22], and all teachers and school leaders are eligible for additional compensation in the form of performance-based bonuses[23]. The Academic Dean is an additional position whose primary role is to provide coaching and professional development to the teaching staff. This role adds an additional school leader relative to a traditional K-5 school, which may only have a principal and assistant principal. Finally, Rocketship must buy online content for the Learning Lab and incurs an additional expense for the Individualized Learning Specialists, who are needed to run the Learning Lab.

Ongoing Financial Benefit Due to Blended Learning

There are three main sources of financial benefit from the Rocketship model: reduced credentialed teaching staff, a relatively junior teaching staff and fewer classrooms. As the Rocketship model operates with five fewer teachers than a comparable district school, the CMO is able to save about $425,000[24] per year per school. Having five fewer classrooms results in a savings of about $90,000[25] per year per school. Finally, Rocketship's goal that 50% of an established school's classroom teachers be TFA corps members may result in a staff that is more junior, and thus less expensive, than that of a typical school. Rocketship calculates the potential financial benefit of its staffing mix to be approximately $336,000 per school per year.[26]

As Rocketship expands, it must consider how this school level model translates into a regional model. Rocketship requires $3.5 million dollars in philanthropic funding to start up each new region. This funds regional start-up activities (both national and regional support), including the cost of starting the schools in that region. Once Rocketship has eight schools operating in a region, the regional support organization is sustainable on management fees from the schools and can open additional schools without further fundraising.

[22] The cost of this goal to Rocketship is estimated by taking 10% of average Rocketship veteran teacher salary plus 7% payroll benefits as projected by the school model.

[23] The estimate of teacher performance bonuses in this analysis is derived by computing a 10% premium plus 7% payroll taxes against the average Rocketship TFA Corps Member base salary and an average Rocketship veteran teacher base salary as projected by the school model. It is assumed that 50% of teachers will be TFA Corps Members. School leader bonuses are not included here due to the difficulty of comparing principal compensation to traditional district schools.

[24] Rocketship estimates that an average district teacher is compensated at $85,000 per year.

[25] Rocketship estimates that an average classroom costs $18,000 per year in incremental rent.

[26] This estimate assumes an average district teacher compensation of $85,000 per year, and compares it to an average Rocketship TFA Corps Member total compensation and an average Rocketship veteran teacher total compensation as projected by the school model. It is assumed that 50% of teachers will be TFA Corps Members.

Lessons Learned

Rocketship Education

Lessons Learned

With its longest-established school now in its fifth year of operation and having opened four additional schools subsequently, Rocketship has fine-tuned the Rocketship Public School Model and has shown strong results for its students on the California state assessments. In the 2010-2011 school year, Rocketship Mateo Sheedy earned an API score of 892, the highest of any low-income elementary school in Santa Clara County. Rocketship Si Se Puede earned an API score of 859, the third highest of all low-income elementary schools in Santa Clara County. Rocketship Los Suenos earned an API score of 839 in its first year of operation, the eighth highest of all low-income elementary schools in Santa Clara County.[27]

Success Factors for Blended Learning at Rocketship Education: While there are many elements of Rocketship's program that have contributed to these results, Rocketship leadership and staff point to several success factors that are related to Rocketship's approach to individualized education:

1. Online learning is one enabling element in a rigorously conceived approach to individualized learning: Technology has a direct impact on individualization in Rocketship's model, but equally important is the human element. Teachers, with strong coaching, are expected and able to differentiate instruction in the classroom on a daily basis. In literacy block this is often in the form of guided reading groups and in math block with centers and math review board. In Learning Lab, Individualized Learning Specialists provide individual or small group support to students who are struggling the most. While online learning is a key piece in an intricately assembled mechanism whose overall goal is individualization, it is not expected to bear the burden of individualizing education alone.

2. Intense focus on hiring and developing excellent teachers and school leaders: Given Rocketship's intention that teachers focus more on higher-order thinking skills and less basic skills, it is critical that Rocketship teachers be effective in the classroom. Increased compensation and performance bonuses are one way that Rocketship attracts talent. In requiring fewer teachers, Rocketship can be more selective in hiring new teachers. Finally, a clear career path and extensive professional development helps Rocketship retain teachers (and school leaders) once they are hired. The position of Academic Dean is devoted solely to teacher development. School leaders also receive a significant amount of parallel support and professional development from the Regional and National offices.

[27] SRI International is also currently engaged in an impact evaluation of Rocketship's blended learning model for the 2011-12 school year. The report, expected to be published in late 2012, will compare performance between Rocketship schools and a control group of similar schools.

3. **Cloud-based infrastructure greatly simplifies management of the Learning Lab:** Multiple Rocketship staff members highlighted the importance of Rocketship's decision, after initial struggles with a server-based approach, to use cloud computing rather than servers to house its software. This is a decision that must be made early in the planning process, but it has several advantages. Cloud computing requires minimal on-site IT staff, usually just a part-time local college student. Cloud computing makes software updates much less labor intensive. Finally, it allows for the use of inexpensive and easy-to-maintain PCs that only require an internet connection rather than more complicated and expensive laptops or desktops. This "asset-light" strategy has enabled Rocketship to avoid costs and they encourage others to consider a similar approach.

Lessons Learned for Blended Learning at Rocketship Education Rocketship staff have a firm belief in the power of their model to transform education for underserved students, but also recognize several lessons learned and ongoing challenges from their first five years of operations. These include:

1. **Available software is still limited, especially with respect to data reporting:** The software programs used in Learning Lab each provide program-specific reports, but Rocketship staff have found that the reports are not granular enough and that it is difficult to integrate data from multiple programs if it is not reported in a central place. Even at this point, the software generally does not provide the level of reporting that is needed, especially on the literacy side, or in ways that are aligned with what is being taught in the classroom.

2. **Data integration remains a challenge:** Despite ongoing development work on RISE, Rocketship has still struggled to integrate its online data with classroom instruction. While there is currently some information flow in both directions, online data is still not fully utilized to inform instruction or student grouping on a regular basis. Rocketship is devoting significant resources to addressing this issue, both through continued work with software vendors and through its partnership with Junyo, a new learning analytics company. Through this partnership, Rocketship aspires to provide fully integrated online data reports as well as greater ability to assign and influence the content that students receive in each of their online learning programs.

3. **RtI capacity bottlenecks due to incoming students' level of preparation:** In order to be sustainable solely on public funding in its first year of operation, Rocketship schools generally open as a K-3 school. If Rocketship were building schools one grade at a time, there would be very little demand for RtI after second grade, as the program is designed to catch up students who have fallen substantially behind. Since Rocketship is admitting second- and third-graders directly, however, those students have large deficits that must be made up quickly and

there is large demand for RtI services among these older students who have not had the benefit of the Rocketship program since Kindergarten. This problem is also exacerbated by the fact that students can only be pulled for RtI during their Learning Lab blocks, which is out only a quarter of the day. The capacity bottleneck eases in individual schools as they mature and more of the upper grades are composed of students who started their education at Rocketship, but it remains a challenge for new Rocketship schools, given that they will continue to need to admit four grades upon opening.

Blended Learning and the Future of Rocketship Education Rocketship has aggressive plans for expanding the Rocketship Public School Model, while at the same time addressing some of the challenges that have emerged. Rocketship's new partnership with Junyo will help fully integrate the classroom and the Learning Lab. In this way, Rocketship believes, the integrated, daily data produced by Learning Lab will help teachers be even more effective in the classroom, and the content alignment with the classroom will help further improve students' rapid mastery of basic skills in the Learning Lab.

Rocketship continues to expand in the Bay Area, where it has opened two additional schools in August 2012 and is planning to open 4 additional schools in 2013-14, bringing its total in the region to 11. Rocketship is also preparing for further national expansion. It plans to open 8 schools in Milwaukee starting in Fall 2013, and is actively identifying and securing other cities for expansion in subsequent years. Expansion is projected to proceed rapidly with the goal of having 250 schools serving over 150,000 students by 2020.

Rocketship is well aware of the challenges associated with any plans for scale, let alone plans of this magnitude. At the same time, the team believes there is good reason to be hopeful about the potential for success. Aylon Samouha, Rocketship's Chief Schools Officer, explains that "you have to have both a good model and the culture and energy to evolve it in response to lessons learned and to take advantage of new, emerging technologies and research. We believe that we have both, and that makes us optimistic as we look ahead." In addition, Samouha notes that the organization has a strong asset base to leverage as it scales, including a solid relationship with Teach for America (a critical source of talent as explained earlier), a commitment to continue to improve the integration between online and classroom learning, and a solid approach to engaging parents both in the daily life of its schools and in the community, which has been critical to the success of Rocketship's expansion in San Jose to date. At the same time, Samouha continues, Rocketship is mindful that while its model for parent engagement has been successful in San Jose, new communities on the expansion roadmap with different community dynamics may require alternative approaches approaches to the same ambitious goals of high levels of parent engagement and community advocacy. Rocketship is also

conscious that as it expands to other regions, staff training will play an ever increasing role in replicating the Rocketship culture, expectations and systems to new schools. In addition, Rocketship is planning carefully to take on the challenges of building and financing both new and existing facilities. Finally, in keeping with its mission, above all else, Rocketship has its eye on student achievement. Samouha explains that Rocketship is focused both on the results that can be measured by traditional means (e.g. standardized tests) and on those skills such as higher order thinking and issues such as student motivation which it believes are critical to student success in school and beyond.

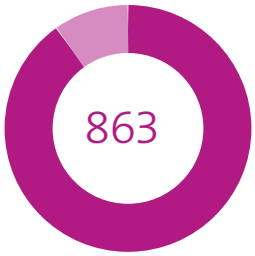
Appendix

Rocketship Education

Note: Many of the appendices in the following have been provided by Rocketship Education

Appendix 1:
Historical Results of Rocketship Education

Rocketship Education API Results (2010-11)



863 out of 1000 on the California Academic Performance Index (API) growth score (vs. 759 for schools serving low-income students in grades 2-6 and 798 for San Jose Unified)

Rocketship's three longest-established schools are among the top 10 schools serving low-income students in Santa Clara County:

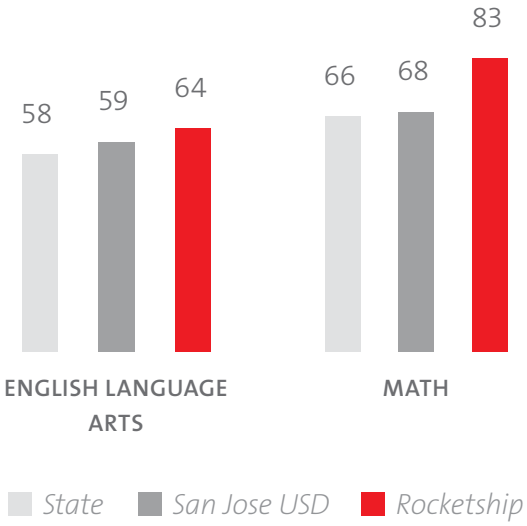
Rocketship Mateo Sheedy Elementary
API of 892

Rocketship Sì Se Puede Academy
API of 859

Rocketship Los Sueños Academy
API of 839

Rocketship 2nd Grade CST Results (2010-11)

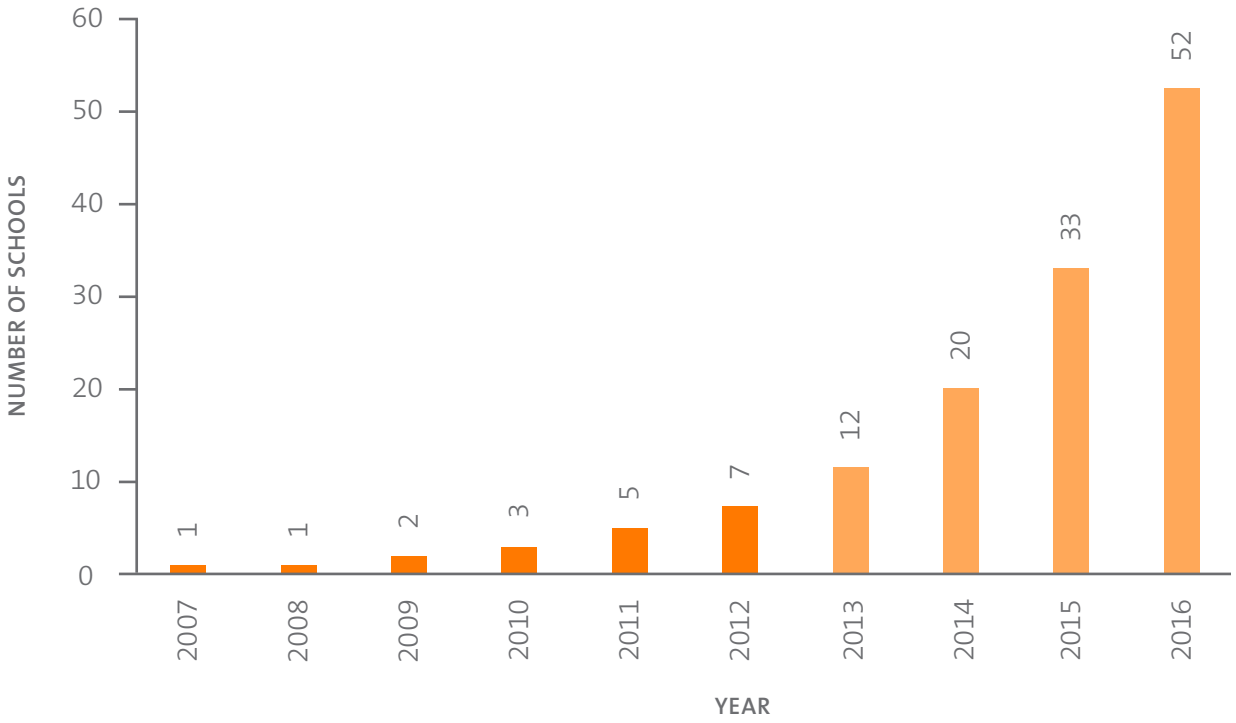
(% proficient or advanced)



The Rocketship CST results include Mateo Sheedy Elementary, Sì Se Puede Academy, and Los Sueños Academy

Appendix 1:
Planned Future Growth of the Rocketship Network

Planned Future Growth of the Rocketship Network



3,500 *current student enrollment (2012-13)*

30,000 *students when all 52 schools open by 2016*

150,000 *students served by 250 schools in 2020*

all *Rocketship schools follow the same blended learning model; growth plan is based on opening clusters of 8 Rochetship schools in new regions*

Appendix 2:
Instructional Model – Detail on Instructional Materials and Assessments

Criteria for Selection (Online)

SIX A'S:

- Alignment to Common Core
- API for SSO/account provisioning/data integration
- Assignability
- Adaptivity
- Assessment
- Affordability

Instructional Materials

	ONLINE
READING / WRITING	· Curriculum Associates · Accelerated Reader
MATH	· DreamBox · ST Math/MIND Research · TenMarks · Equatia

System of Assessments

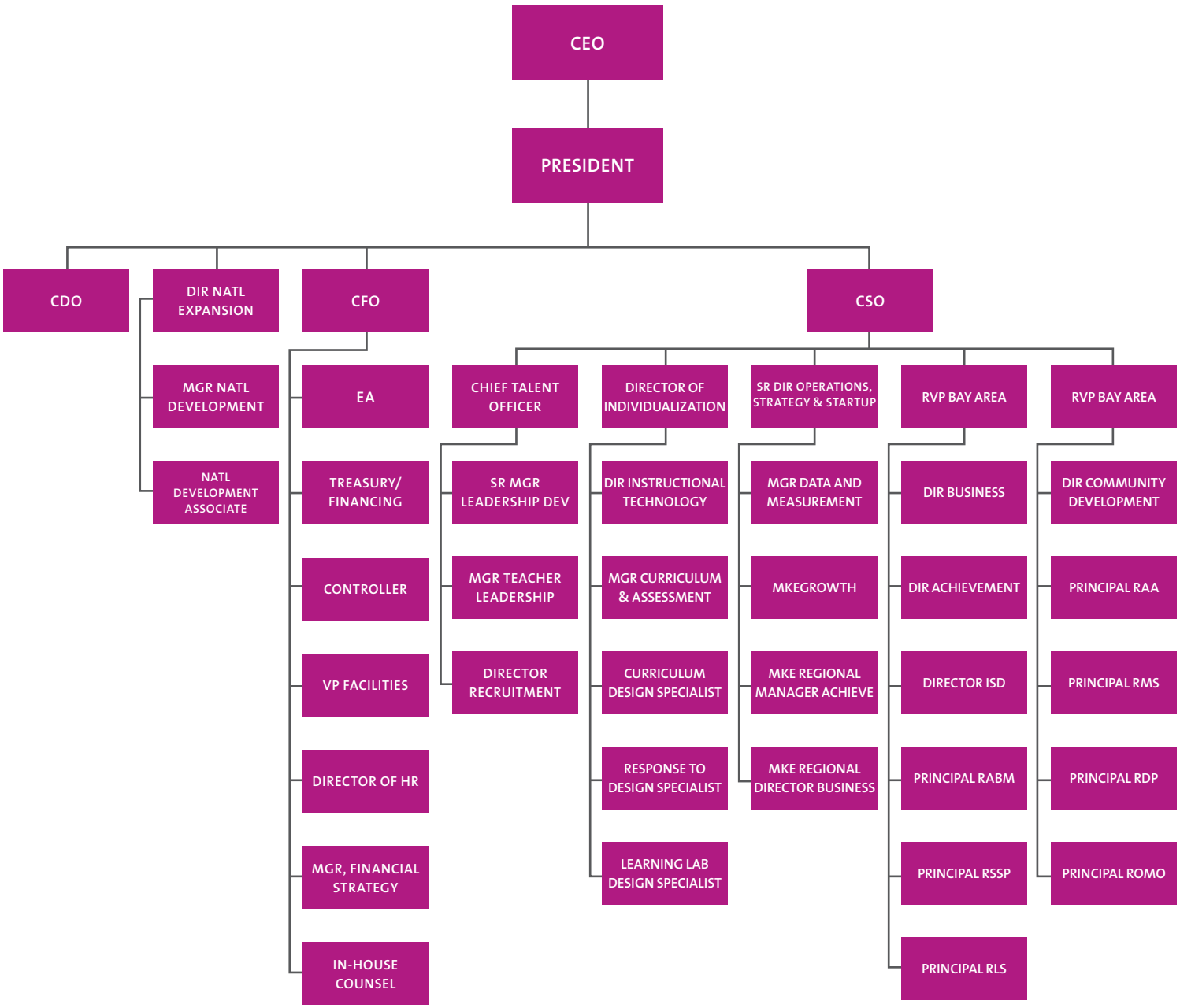
ASSESSMENTS	FREQUENCY
ASSESSMENTS EMBEDDED IN ONLINE PROGRAMS	Ongoing
ACCELERATED READER	Ongoing
INFORMAL CLASSROOM-BASED ASSESSMENTS	Ongoing
INTERNALLY DEVELOPED ASSESSMENTS IN WRITING	5x/year (Sept, Nov, Jan, March, May)
INTERNALLY DEVELOPED MATH BENCHMARK; DRA ASSESSMENT FOR LITERACY	5x/year (Sept, Nov, Jan, March, May)
NWEA MAP	3x/year (Sept, Jan, June)
CALIFORNIA STANDARDS TEST (CST)	1x/year (May)
CEDLT	1x/year (Fall)

Effect on Instruction

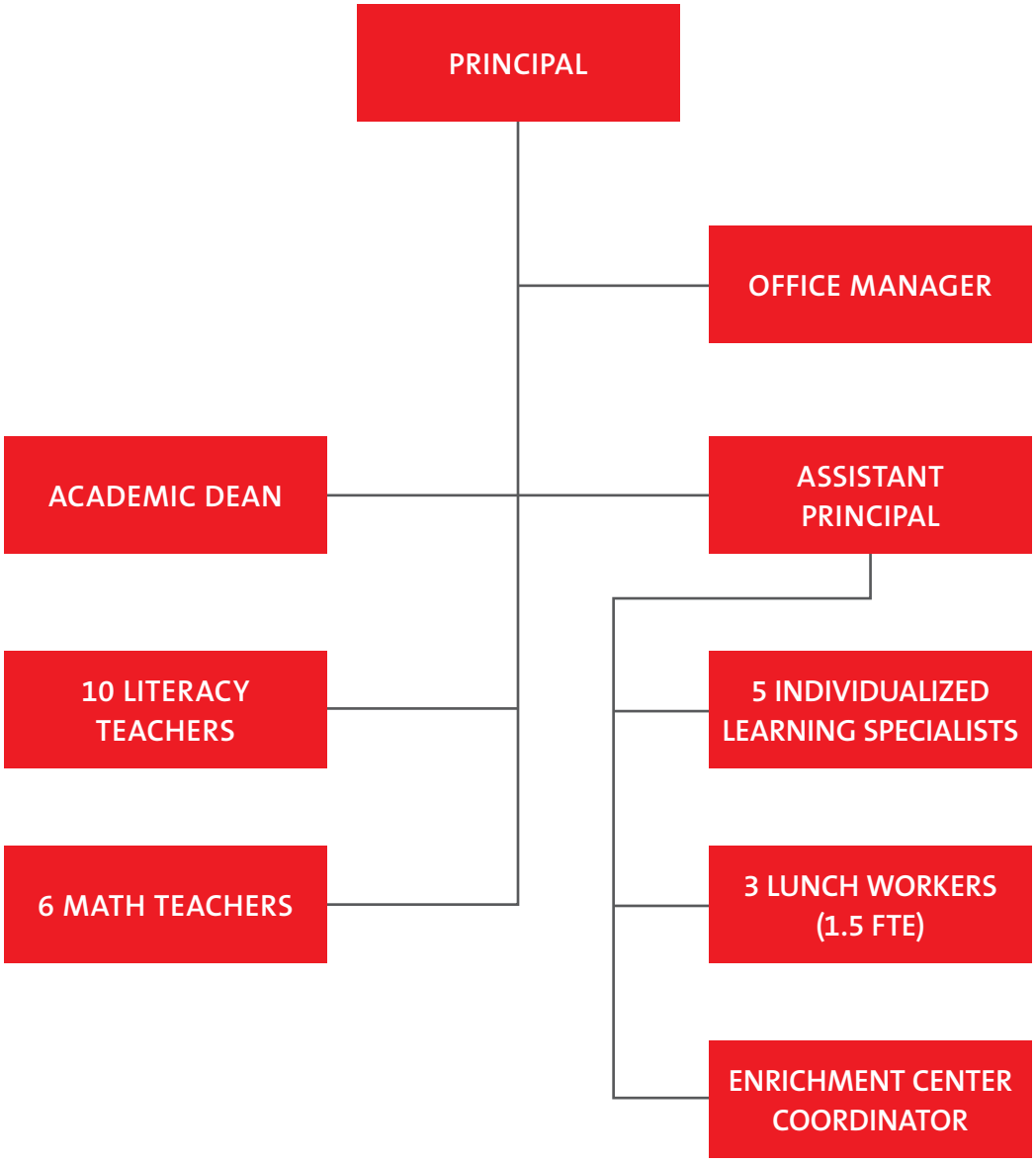
- Online assessments do not regularly inform classroom instruction but are used for behavior management and student motivation
- Results of interim assessments (every 8 weeks) used to adjust classroom instruction, set classroom instructional groups, and identify students in need of more focused support
- MAP and CST used to gauge student progress and school performance
- Rocketship has correlated NWEA MAP and its internal math and writing assessments with end of year CST and CEDLT testing to correctly measure progress and give teachers detailed data about areas for student improvement

Appendix 3:
Rocketship Education Organizational Structure

RSED National and Regional Organizational Structure (July 2012)



Appendix 4:
Rocketship School Organizational Structure (2011-12)



In the 2012-13 academic year, each Rocketship school will have 6 Individualized Learning Specialists and will add the new position of Assistant Teacher.

Appendix 5:
Rocketship Sample 1st Grade Schedule

TIME	ACTIVITY
7:30 AM	Breakfast
8:00 AM	Launch
8:10 AM	Literacy/Social Studies
11:50 AM	Lunch/recess
12:30 PM	Mathematics/Science
2:20 PM	Learning Lab (online instruction)
3:30 PM	Learning Lab Enrichment (PE)
4:00 PM	Dismissal

- One day is a shortened day and instruction ends at 2pm
- Rocketship uses a block schedule with a double block for Literacy/Social Studies, a block for Math/Science and a block for Learning Lab
- In addition to the daily schedule, some students arrive early or stay late to spend additional time on the online programs.

Appendix 6:
Support for Blended Learning

Professional Development

- Four weeks of professional development time in August, prior to the start of school
- Ongoing coaching by Academic Dean, Principal and Assistant Principal
- 180 minute staff PD time on Wednesday, planned and facilitated by Academic Dean
- Full day of professional development every night weeks focused on analysis of interim assessments ("Data Days")
- Every teacher has an individualized Professional Growth Plan to guide their PD

Teaching & Planning Time

- 400 instructional minutes per teacher Monday – Thursday
- 180 minute staff PD time on Friday, which is often used for planning
- Other planning takes place on teachers' own time before or after school hours

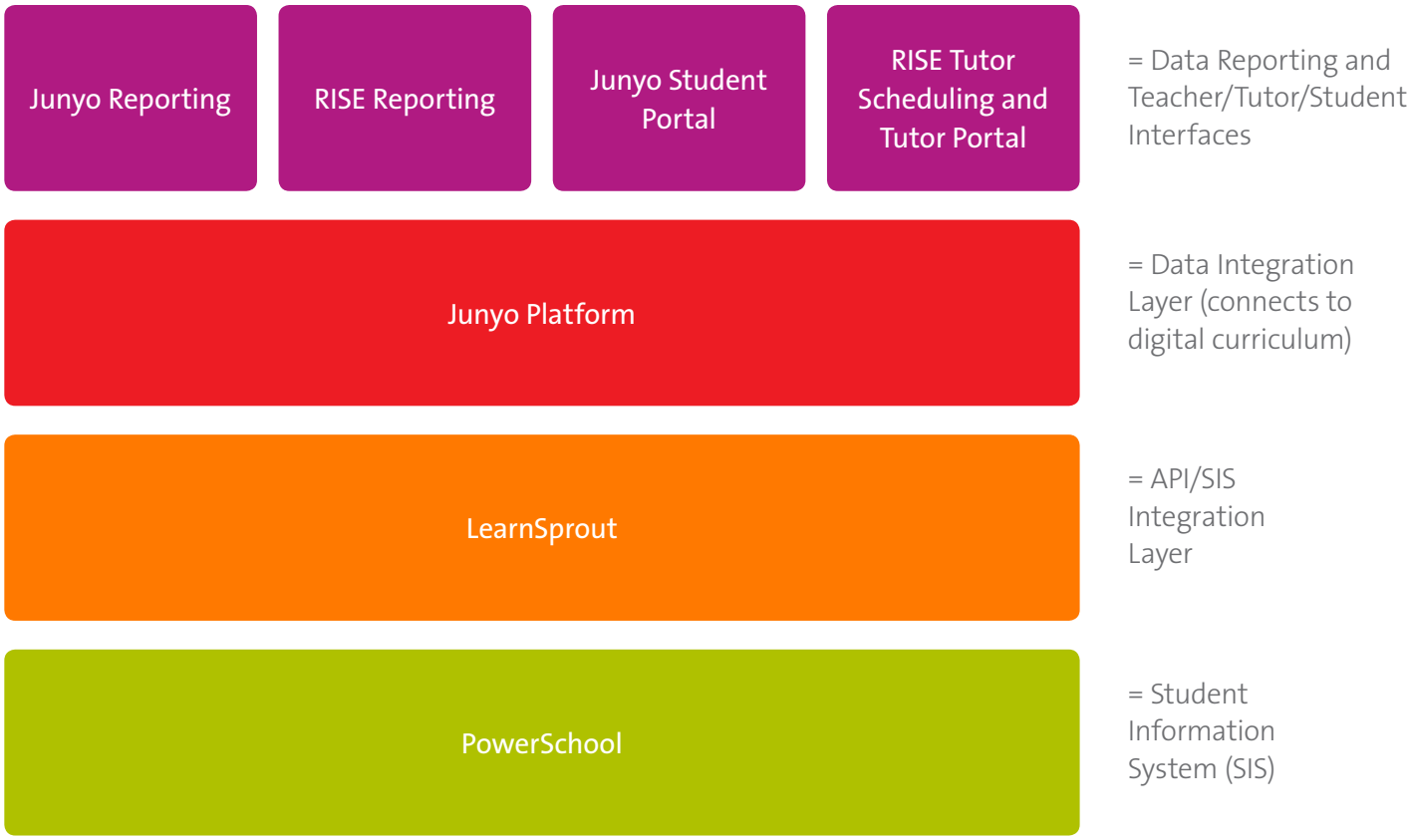
CMO Supports

- "Critical Systems" support and training, including:
  - Toolkit for streamlining reporting and compliance
  - Budgeting and financial management systems
  - Training and mentoring for the Principal, Assistant Principal and Academic Dean
  - Leadership development program
  - Full scope and sequence for core subject areas
- Real Estate
- Training and mentoring for the Principal, Assistant Principal and Academic Dean
- Provision of Special Education

Best Practices from Other Schools

- Rocketship has adopted Lemov's Taxonomy from Uncommon Schools
- Strong culture and common school practices (e.g., Morning Launch, Rocketeer Creed) derived from KIPP
- Leadership development program builds teachers into assistant principals, academic deans and founding principals at other Rocketship schools, ensuring fidelity to model
- Rocketship has begun to plan closer collaboration with KIPP and other blended elementary schools around sharing best practices, data, and lessons learned

Appendix 7:
Technology Stack (Intended Function)



Appendix 8: Financial Details

2010 – 11 Revenue

Rocketship Mateo Sheedy
For the Year Ended June 30, 2011

REVENUE	
Total Unrestricted Revenue	4,072,576
Total Federal Revenue	648,076
State Revenue	
Apportionment Revenue	286,151
Categorical Grant Revenue	448,772
Other State Revenue	682,877
TOTAL STATE REVENUE	**1,417,800**
Local Revenue	
Property Taxes	1,990,975
Other Local Revenue	12,801
TOTAL LOCAL REVENUE	**2,003,776**
Contributions	2,924
TOTAL REVENUE	**4,072,576**

2010 – 11 Expenses

Rocketship Mateo Sheedy
For the Year Ended June 30, 2011

EXPENSES	
Total Certificated Salaries	1,087,778
Total Classified Salaries	213,394
Total Employee Benefits	245,976
Supplies & Materials	
Curriculum, class sets, library books	50,000
Non-textbook Instructional Resources	15,000
Instructional materials and supplies	35,000
Non-instructional supplies and materials	15,000
Classroom technology and software	55,000
Classroom furniture, staff software, technology	13,000
Food service	197,639
SUBTOTAL SUPPLIES & MATERIALS	**380,639**
Operating Services	
Teacher Recruitment and Certification	28,000
Professional Development	16,000
District Oversight Fees	34,088
Budget Contingency	33,705
Facilities Maintenance, Custodial and Utilities	65,000
Physical Education	25,000
Assessment team	20,000
Copy Machine	30,000
Field Trips	6,000
Substitute Teachers	32,000
RSED Management Fees	481,352
RSED Facilities Fees	665,251
TOTAL OPERATING SERVICES	**1,436,396**
Additional Expenses	
Depreciation	1,498
Interest Expense	4,784
TOTAL ADDITIONAL EXPENSES	**6,282**
TOTAL EXPENSE	**3,370,465**
NET OPERATING INCOME	**702,111**

About Michael & Susan Dell Foundation and FSG

Inspired by their passion for children and by a shared desire to improve the lives of children living in urban poverty, Michael and Susan Dell established their Austin, Texas-based foundation in 1999. In its early years, the foundation's work focused on improving education and children's health in Central Texas. But within a few short years, our reach expanded, first nationally and then globally. To date, the Michael & Susan Dell Foundation has committed more than $700 million to assist nonprofit organizations working in major urban communities in the United States, South Africa and India. We focus on opportunities with the greatest potential to directly and measurably transform the lifelong outcomes of impoverished urban children around the globe.

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For questions or comments on this case study, please contact:
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